IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF WISCONSIN

ALVIN BALDUS, CARLENE BECHEN, ELVIRA BUMPUS, RONALD BIENDSEIL, LESLIE W. DAVIS, III, BRETT ECKSTEIN, GLORIA ROGERS, RICHARD KRESBACH, ROCHELLE MOORE, AMY RISSEEUW, JUDY ROBSON, JEANNE SANCHEZ-BELL, CECELIA SCHLIEPP, TRAVIS THYSSEN, CINDY BARBERA, RON BOONE, VERA BOONE, EVANJELINA CLEERMAN, SHEILA COCHRAN, MAXINE HOUGH, CLARENCE JOHNSON, RICHARD LANGE, and GLADYS MANZANET,

Plaintiffs,

Case No. 11-CV-00562
JPS-DPW-RMD

TAMMY BALDWIN, GWENDOLYNNE MOORE and RONALD KIND,

Intervenor-Plaintiffs,

Members of the Wisconsin Government Accountability Board, each only in his official capacity: MICHAEL BRENNAN, DAVID DEININGER, GERALD NICHOL, THOMAS CANE, THOMAS BARLAND, and TIMOTHY VOCKE, and KEVIN KENNEDY, Director and General Counsel for the Wisconsin Government Accountability Board,

Defendants,

F. JAMES SENSENBRENNER, JR., THOMAS E. PETRI, PAUL D. RYAN, JR., REID J. RIBBLE, and SEAN P. DUFFY.

Intervenor-Defendants.

VOCES DE LA FRONTERA, INC., RAMIRO VARA, OLGA VARA,

JOSE PEREZ, and ERICA RAMIREZ,

Plaintiffs,

v.

Case No. 11-CV-1011
JPS-DPW-RMD

Members of the Wisconsin Government Accountability Board, each only in his official capacity: MICHAEL BRENNAN, DAVID DEININGER, GERALD NICHOL, THOMAS CANE, THOMAS BARLAND, TIMOTHY VOCKE, and KEVIN KENNEDY, Director and General Counsel for the Wisconsin Government Accountability Board,

Defendants.

Declaration of Daniel Kelly in Support of Motion for Summary Judgment on Counts 2-6 and 8 As Alleged by the *Baldus* Plaintiffs, Counts 4 and 5 As Alleged by the *Baldwin* Intervenor-Plaintiffs and the Single Count As Alleged by the Consolidated *Voces De La Frontera* Plaintiffs

---

I, Daniel Kelly, under the penalty of perjury under the laws of the United States of America, declare and state as follows:

1. I am one of the attorneys for the defendants, Michael Brennan, David Deininger, Gerald Nichol, Thomas Cane, Thomas Barland, and Kevin Kennedy (the "Government Accountability Board").

2. Attached as Exhibit A is a true and correct copy of the Bulletin of Proceedings of the Wisconsin Legislature, 1983-1984 Session, relating to 1983 Assembly Bill 1 (which became 1983 Wisconsin Act 29, pertaining to decennial legislative redistricting). Attached therewith is a true and correct copy of the Bulletin of Proceedings of the Wisconsin Legislature, 1983-1984

Session, relating to Senate Bill 83 (which became 1983 Wisconsin Act 27, pertaining to state finances and appropriations).

3. Attached as Exhibit B is a true and correct copy of pages from The Capital Times of July 2, 1983.

4. Attached hereto as Exhibit C is a true and correct copy of a document that was produced by the intervenor-plaintiff Ronald Kind in response to defendants' interrogatories, requests for production of documents and requests for admission in the above captioned litigation.

5. Attached hereto as Exhibit D is a true and correct copy of the transcript of the January 27, 2012 deposition of Dr. Kenneth Mayer.

6. Attached hereto as Exhibit E is a true and correct copy of the Rebuttal Expert Declaration of Bernard Grofman which was produced in this case.

7. Attached hereto as Exhibit F is a true and correct copy of the Rule 26 Expert Report of Dr. Kenneth R. Mayer which was produced in this case.

8. Attached hereto as Exhibit G is a true and correct copy of the document that was marked exhibit 1025 at the deposition of Kenneth Mayer.

9. Attached hereto as Exhibit H is a true and correct copy of the Expert Report of Ronald Keith Gaddie, Ph.D, which was produced in this case.

10. Attached hereto as Exhibit I is a true and correct copy of the Rebuttal Report of Ronald Keith Gaddie, Ph.D, which was produced in this case.

11. Attached hereto as Exhibit J is a courtesy copy of a portion of pages A1 and A12 from the *Milwaukee Journal*, May 27, 1984.

Executed on this 10th day of January, 2012.

/s/ Daniel Kelly
Daniel Kelly
Attorney for Defendants

REINHART\8333506

BULLETIN

of the

PROCEEDINGS

of the

Wisconsin Legislature

1983-84 Session

Part 1 — SENATE
Part 2 — ADMINISTRATIVE RULES
Part 3 — ASSEMBLY

Period Ending December 31, 1984

EXHIBIT

A

JULY 1983 SPECIAL SESSION

Action on Assembly Bills

(NOTE: The numbers in the right margin indicate daily Journal pages)

Assembly Bill 1, July 1983 Special Session
AN ACT to renumber 16.96 (3); to amend 3.002, 5.15 (4) (a) and 59.03 (2) (a) and (3) (b) 1; to repeal and recreate chapter 4; and to create 5.15 (1) (d), 8.15 (9), 8.20 (10), 13.92 (1) (a) 6, 16.96 (3) (b), 66.021 (16) and 66.022 (6) of the statutes, relating to redistricting the senate and assembly based on the 1980 federal census of population and making miscellaneous changes in the statutes pertaining to decennial legislative redistricting.

1983

7-11. A. Introduced by Committee on Assembly Organization, by request of Governor Anthony S. Earl 292
7-11. A. Read first time and referred to committee on Elections 292
7-11. A. Public hearing held.
7-11. A. Executive session held.
7-12. A. Report passage recommended by committee on Elections, Ayes 7, Noes 3 295
7-12. A. Referred to calendar 295
7-12. A. Assembly amendment 1 offered by Representative Hauke 294
7-12. A. Assembly amendment 2 offered by Representative Tesmer 294
7-12. A. Assembly amendment 3 offered by Representative Menos 294
7-13. A. Assembly substitute amendment 1 offered by Representatives Radtke, T. Thompson, Coleman, Jaronitzky, Goodrich, Manske, Huelsman, Schober, Foti, Buettner, Rude, Stewart, Rosenzweig, R. Travis, Kasten, Zeuske, Donoghue, Cowles, Walling, Goetsch, Wimmer, Bradley, Schultz, Merkt and Turba 299
7-13. A. Assembly substitute amendment 2 offered by Representative D. Travis 299
7-13. A. Assembly amendments 1, 2 and 3 to assembly substitute amendment 2 offered by Representative D. Travis 299
7-13. A. Assembly amendment 4 to assembly substitute amendment 2 offered by Representative Hauke .. 299
7-13. A. Assembly amendment 5 to assembly substitute amendment 2 offered by Representative Menos .. 299
7-13. A. Assembly substitute amendment 3 offered by Representatives Radtke, Nelsen, Foti, Rosenzweig, Manske, Zeuske, Rude, Turba, Goetsch, Schneiders, Cowles, Kasten, Merkt, Stitt, Matty, Jaronitzky, Panzer, Stewart, Wimmer, Coleman, Quackenbush, Tregoning, Prosser, Bradley, Goodrich and Van Gorden 300
7-13. A. Read a second time 303
7-13. A. Refused to table assembly substitute amendment 2, Ayes 40, Noes 54 303
7-13. A. Refused to place assembly amendment 1 to assembly substitute amendment 2 immediately following assembly amendment 4 to assembly substitute amendment 2, Ayes 41, Noes 54 304
7-13. A. Refused to table assembly amendment 1 to assembly substitute amendment 2, Ayes 39, Noes 56 304
7-13. A. Refused to lay on table, Ayes 42, Noes 54 305
7-13. A. Assembly amendment 1 to assembly substitute amendment 2 adopted, Ayes 94, Noes 1 305
7-13. A. Assembly amendment 2 to assembly substitute amendment 2 withdrawn and returned to author 305
7-13. A. Assembly amendment 3 to assembly substitute amendment 2 adopted, Ayes 96, Noes 0 305
7-13. A. Assembly amendment 4 to assembly substitute amendment 2 rejected, Ayes 52, Noes 44 305
7-13. A. Assembly amendment 5 to assembly substitute amendment 2 rejected, Ayes 62, Noes 34 306
7-13. A. Assembly amendment 6 to assembly substitute amendment 2 offered by Representative T. Thompson 299
7-13. A. Assembly amendment 7 to assembly substitute amendment 2 offered by Representative Rude ... 299
7-13. A. Assembly amendment 6 to assembly substitute amendment 2 rejected, Ayes 57, Noes 39 306
7-13. A. Assembly amendment 7 to assembly substitute amendment 2 rejected, Ayes 55, Noes 40 306
7-13. A. Refused to reject assembly substitute amendment 2, Ayes 43, Noes 53 307
7-13. A. Assembly amendment 8 to assembly substitute amendment 2 offered by Representatives T. Thompson, Matty and Zeuske 299
7-13. A. Assembly amendment 9 to assembly substitute amendment 2 offered by Representative Donoghue 299
7-13. A. Assembly amendment 8 to assembly substitute amendment 2 rejected, Ayes 53, Noes 43 307
7-13. A. Assembly amendment 9 to assembly substitute amendment 2 rejected, Ayes 57, Noes 39 307
7-13. A. Refused to table assembly substitute amendment 2, Ayes 43, Noes 53 308
7-13. A. Assembly amendment 10 to assembly substitute amendment 2 offered by Representative T. Thompson 299
7-13. A. Refused to lay on table, Ayes 42, Noes 53 308
7-13. A. Assembly amendment 11 to assembly substitute amendment 2 offered by Representatives Matty, Zeuske and T. Thompson 299
7-13. A. Assembly amendment 10 to assembly substitute amendment 2 placed immediately following assembly amendment 11 to assembly substitute amendment 2 309
7-13. A. Assembly amendment 11 to assembly substitute amendment 2 rejected, Ayes 51, Noes 44 309
7-13. A. Assembly amendment 10 to assembly substitute amendment 2 withdrawn and returned to author 309
7-13. A. Assembly substitute amendment 4 offered by Representative Hauke 300
7-14. A. Refused to suspend rules to take up assembly substitute amendment 4, Ayes 39, Noes 56 309
7-13. A. Assembly amendment 12 to assembly substitute amendment 2 offered by Representative T. Thompson 299
7-13. A. Assembly amendment 12 to assembly substitute amendment 2 rejected, Ayes 55, Noes 39 309
7-13. A. Assembly substitute amendment 2 adopted, Ayes 51, Noes 44 310
7-13. A. Ordered to a third reading 310
7-13. A. Rules suspended 310
7-13. A. Read a third time 310
7-13. A. Refused to indefinitely postpone, Ayes 41, Noes 53 .. 310
7-13. A. Refused to lay on table, Ayes 44, Noes 51 310
7-13. A. Passed, Ayes 51, Noes 44, Paired 2 310
7-13. A. Ordered immediately messaged, Ayes 53, Noes 42 .. 311
7-14. S. Received from Assembly 310

Case 2:11-cv-00562-JPS-DPW-RMD Filed 02/10/12 Page 2 of 10 Document 131-1

7-14. S. Read first time and referred to committee on Urban Affairs and Government Operations 310
7-14. S. Report concurrence recommended, Ayes 3, Noes 2 .. 310
7-14. S. Rules suspended and read a third time 310
7-14. S. Senate substitute amendment 1 offered by Senators Engeleiter, Lorge, Chilsen, Hanaway, Kreul, Johnston, Theno, Davis and Harsdorf 310
7-14. S. Senate substitute amendment 1 rejected, Ayes 17, Noes 11 311
7-14. S. Senate amendment 1 offered by Senator Engeleiter, Harsdorf, Chilsen, Hanaway, Theno, Theno, Davis and McCallum 311
7-14. S. Senate amendment 1 rejected, Ayes 18, Noes 10 311
7-14. S. Senate amendment 2 offered by Senator Kleczka ... 311
7-14. S. Senate amendment 2 placed after Senate amendment 3 311
7-14. S. Senate amendment 3 offered by Senators Lorge, Harsdorf, Chilsen, Hanaway, Theno, Engeleiter, McCallum and Kreul 311
7-14. S. Senate amendment 3 rejected, Ayes 18, Noes 10 311
7-14. S. Senate amendment 2 rejected, Ayes 22, Noes 6 311
7-14. S. Ordered to a third reading 311
7-14. S. Rules suspended 311
7-14. S. Read a third time 311
7-14. S. Nonconcurrence refused, Ayes 11, Noes 17 311
7-14. S. Concurred in, Ayes 17, Noes 11 312
7-14. S. Ordered immediately messaged 312
7-14. A. Received from senate concurred in 312
7-15. A. Report correctly enrolled 312
7-15. A. Report approved by Governor 7-15-83 312
Act No. 29. Published 7-19-83.

Assembly Bill 2, July 1983 Special Session
AN ACT to repeal 230.35 (1) (a) 4.a to d and 230.35 (1m) (d); to renumber and amend 230.35 (1) (a) 4. (intro.), 230.35 (1m) (b) and (c) and 230.35 (4) (a) 2 to 8; to amend 20.917 (1) (c) and (3) (a), 40.05 (1) (b) and 230.35 (4) (c) and (d) (intro.); to repeal and recreate 230.35 (4) (a) 9; and to create 20.917 (6) and 230.35 (4) (a) 7 of the statutes, relating to state employes' annual leave of absence, paid legal holidays and temporary lodging allowances, moving expense reimbursement for persons reemployed in the state civil service, delegation of authority by the secretary of employment relations and employer contributions to the retirement fund for certain state employes. (FE)

1983
7-13. A. Introduced by Joint Committee on Employment Relations 310
7-13. A. Read first time and referred to calendar 310
7-13. A. Fiscal estimate received.
7-14. A. No further action pursuant to Assembly Joint Resolution 3.

2-14. A. Refused to suspend rules to take up, Ayes 50, Noes 45 701
2-16. A. Motion to reconsider vote by which concurred in withdrawn 710
2-16. S. Received from Assembly amended and concurred in as amended, Assembly amendments 1 and 2 to Assembly amendment 1 and Assembly amendments 1, 2, 12 and 24 adopted 613
3- 1. S. Assembly amendment 1 concurred in 652
3- 1. S. Assembly amendment 2 concurred in 652
3- 1. S. Assembly amendment 12 concurred in 652
3- 1. S. Assembly amendment 24 concurred in 652
3- 1. S. Action ordered immediately messaged 659
3- 6. S. Chief Clerk's correction 677
3- 6. S. Report correctly enrolled.
4-18. S. Presented to the Governor on 4-17-84 891
4-25. S. Report approved by the Governor on 4-18-84 892
(1983 WI Act No. 211 - Published 4-25-84)

Senate Bill 81

AN ACT to renumber and amend 125.69 (1) (b); and to create 125.33 (1) (cm) and 125.69 (1) (b) 2 of the statutes, relating to alcohol beverage wholesalers' interest in retail premises. (FE)

1983

2- 8. S. Introduced by Senator Roshell; cosponsored by Representatives Shoemaker, Looby and Bradley.
2- 8. S. Read first time and referred to committee on Labor, Business, Veterans' Affairs and Tourism 70
3- 2. S. Public hearing held.
3- 3. S. Fiscal estimate received.
3-30. S. Report passage recommended, Ayes 6, Noes 0 123
4-12. S. Read a second time 145
4-12. S. Ordered to a third reading 145
4-12. S. Rules suspended 145
4-12. S. Read a third time and passed 145
4-12. S. Ordered immediately messaged 145
4-14. A. Received from senate 130
4-14. A. Read first time and referred to committee on Excise and Fees 131
6- 1. A. Executive session held.
6- 2. A. Report concurrence recommended by committee on Excise and Fees, Ayes 9, Noes 0 240
6- 2. A. Referred to committee on Rules 240
6-21. A. Rules suspended 277
6-21. A. Withdrawn from committee on Rules and referred to calendar 6-22 277
6-22. A. Read a second time 279
6-22. A. Ordered to a third reading 279
6-22. A. Rules suspended 279
6-22. A. Read a third time and concurred in 279
6-22. A. Ordered immediately messaged 279
6-23. S. Received from Assembly concurred in 261
6-27. S. Report correctly enrolled.
7- 6. S. Presented to the Governor on 6-30-83 291
7- 6. S. Report approved by the Governor on 7-1-83 276
(1983 WI Act No. 26 - Published 7-5-83)

Senate Bill 82

AN ACT to authorize and direct expenditure of $3,654.01 from the general fund for payment of a claim against the state made by Gareth Foerster. (FE)

1983

2- 8. S. Introduced by Senator Kleczka; cosponsored by Representative Roberts, by request of State Claims Board.
2- 8. S. Read first time and referred to joint committee on Finance 70
2-11. S. Fiscal estimate received.
2-16. S. Fiscal estimate received.
4- 6. S. Report passage recommended, Ayes 14, Noes 0 128
4-12. S. Read a second time 145
4-12. S. Ordered to a third reading 145
4-12. S. Rules suspended 145
4-12. S. Read a third time and passed, Ayes 30, Noes 1 145
4-12. S. Ordered immediately messaged 145
4-14. A. Received from senate 130
4-14. A. Read first time and referred to committee on Rules . . 131
4-21. A. Placed on calendar 4-26 by committee on Rules.
4-26. A. Read a second time 168
4-26. A. Ordered to a third reading 168
4-26. A. Rules suspended 168
4-26. A. Read a third time and concurred in, Ayes 96, Noes 0 168
4-26. A. Ordered immediately messaged 168
4-28. S. Received from Assembly concurred in 178
4-29. S. Report correctly enrolled.
5- 3. S. Presented to the Governor on 5-3-83 188
5- 5. S. Report approved by the Governor on 5-3-83 190
(1983 WI Act No. 13 - Published 5-4-83)

Senate Bill 83

AN ACT to amend and revise chapter 20 of the statutes, and to make diverse other changes in the statutes, relating to state finances and appropriations, constituting the executive budget bill of the 1983 legislature, and making appropriations. (FE)

1983

2- 8. S. Introduced by joint committee on Finance, by request of Governor Anthony S. Earl.
2- 8. S. Read first time and referred to joint committee on Finance 70
2-22. S. Public hearing held.
2-23. S. Public hearing held.
2-24. S. Public hearing held.
3- 1. S. Public hearing held.
3- 2. S. Senate amendment 1 offered by Senator Thompson, by request of Representative Williams 103
3- 2. S. Public hearing held.
3- 3. S. Public hearing held.
3- 9. S. Public hearing held.
3-10. S. Public hearing held.
3-15. S. Public hearing held.
3-16. S. Public hearing held.
3-17. S. Public hearing held.
3-22. S. Public hearing held.
3-23. S. Public hearing held.
3-24. S. Public hearing held.
3-29. S. Public hearing held.
3-30. S. Public hearing held.
4-12. S. Report of Joint Survey committee on Debt Management received, without recommendation 139
4-13. S. Public hearing held.
4-19. S. Senate amendment 2 offered by Senator Lorge 161
4-20. S. Public hearing held.
4-26. S. Senate amendment 3 offered by Senator Kreul 173
5-12. S. Chief Clerk's correction 198
5-17. S. Report of Joint Survey committee on Debt Management received with favorable recommendation 201
5-17. S. Chief Clerk's correction 203
5-26. S. Report introduction and adoption of Senate substitute amendment 1, Ayes 10, Noes 3 and passage as amended recommended, Ayes 10, Noes 3 215
5-26. S. Senate amendment 1 to Senate substitute amendment 1 offered by Senator Van Sistine 220
5-31. S. Report of Joint Survey committee on Tax Exemptions received with favorable recommendation 222
5-31. S. Report of Joint Survey committee on Retirement Systems received with favorable recommendation 222
5-31. S. Read a second time 226
5-31. S. Senate amendments 2, 3 and 4 to Senate substitute amendment 1 offered by Senator Van Sistine 226
5-31. S. Senate amendments 5 and 6 to Senate substitute amendment 1 offered by Senator Maurer 226
6- 1. S. Senate amendments 7 and 8 to Senate substitute amendment 1 offered by Senator Van Sistine 228

Case 2:11-cv-00562-JPS-DPW-RMD Filed 02/10/12 Page 4 of 10 Document 131-1

6- 1. S. Senate amendment 9 to Senate substitute amendment 1 offered by Senator Lorge 228
6- 2. S. Senate amendment 10 to Senate substitute amendment 1 offered by Senator Strohl 230
6- 2. S. Senate amendment 11 to Senate substitute amendment 1 offered by Senators Harsdorf, Engeleiter, Davis, Lorman, Ellis, Kreul, Lasee, McCallum, Johnston, Opitz, Hanaway and Theno 230
6- 2. S. Senate amendment 12 to Senate substitute amendment 1 offered by Senators McCallum, Harsdorf, Kreul, Lorge, Engeleiter, Chilsen, Hanaway, Theno, Lorman and Davis 230
6- 2. S. Senate amendment 13 to Senate substitute amendment 1 offered by Senators McCallum, Ellis, Kreul, Lorge, Chilsen, Hanaway, Theno, Lorman and Davis 230
6- 2. S. Senate amendment 14 to Senate substitute amendment 1 offered by Senators Harsdorf, Engeleiter, Chilsen, Ellis, Hanaway, Theno and Kreul 230
6- 2. S. Senate amendment 15 to Senate substitute amendment 1 offered by Senators McCallum, Ellis, Kreul, Lorge, Chilsen, Hanaway, Theno and Davis 230
6- 2. S. Senate amendment 16 to Senate substitute amendment 1 offered by Senators McCallum, Ellis, Kreul, Hanaway, Theno, Lorman and Davis 230
6- 2. S. Senate amendment 17 to Senate substitute amendment 1 offered by Senators Harsdorf, Engeleiter, Chilsen, Hanaway and Lorman 230
6- 2. S. Senate amendment 18 to Senate substitute amendment 1 offered by Senators Engeleiter, Opitz, Chilsen, Ellis, Davis, Hanaway, Theno, Lorman, McCallum, Lorge, Kreul and Harsdorf 230
6- 2. S. Senate amendment 19 to Senate substitute amendment 1 offered by Senator Chilsen 230
6- 2. S. Senate amendment 20 to Senate substitute amendment 1 offered by Senators Engeleiter, Davis, Ellis, Hanaway, Lorman, Kreul, Harsdorf and Chilsen 230
6- 2. S. Senate amendment 21 to Senate substitute amendment 1 offered by Senators Hanaway, Lorman, Lorge, Harsdorf and Ellis 230
6- 2. S. Senate amendment 22 to Senate substitute amendment 1 offered by Senators Hanaway, Lorman, Engeleiter and Chilsen 230
6- 2. S. Senate amendment 23 to Senate substitute amendment 1 offered by Senators Engeleiter, Ellis, Hanaway, Theno, Lorman, Davis and McCallum 230
6- 2. S. Senate amendment 24 to Senate substitute amendment 1 offered by Senators Chilsen, Theno, Ellis, McCallum, Kreul, Harsdorf and Engeleiter 230
6- 2. S. Senate amendment 25 to Senate substitute amendment 1 offered by Senators Lorman and Theno 230
6- 2. S. Senate amendment 26 to Senate substitute amendment 1 offered by Senators Harsdorf, Chilsen, Hanaway, Theno, Lorman, Lorge and Kreul 230
6- 2. S. Senate amendment 27 to Senate substitute amendment 1 offered by Senators Engeleiter, Ellis, Hanaway, Theno, Lorman, Davis and McCallum 230
6- 2. S. Senate amendment 28 to Senate substitute amendment 1 offered by Senator Kreul 230
6- 2. S. Senate amendment 29 to Senate substitute amendment 1 offered by Senators Kreul and Thompson 230
6- 2. S. Senate amendment 30 to Senate substitute amendment 1 offered by Senator Kreul 230
6- 2. S. Senate amendment 31 to Senate substitute amendment 1 offered by Senator Harsdorf 230
6- 2. S. Senate amendment 32 to Senate substitute amendment 1 offered by Senators Theno, Lorman, McCallum, Lorge, Kreul, Harsdorf, Engeleiter, Chilsen and Hanaway 230
6- 2. S. Senate amendment 33 to Senate substitute amendment 1 offered by Senators Theno and Hanaway 230
6- 2. S. Senate amendment 34 to Senate substitute amendment 1 offered by Senator Harsdorf 231
6- 2. S. Senate amendment 35 to Senate substitute amendment 1 offered by Senators Theno, Chilsen, Kreul, Engeleiter and Hanaway 231
6- 2. S. Senate amendment 36 to Senate substitute amendment 1 offered by Senators Theno, Lorman and Kreul 231
6- 2. S. Senate amendment 37 to Senate substitute amendment 1 offered by Senator Harsdorf 231
6- 2. S. Senate amendment 38 to Senate substitute amendment 1 offered by Senators Engeleiter, Davis, Chilsen, Hanaway and Lorman 231
6- 2. S. Senate amendment 39 to Senate substitute amendment 1 offered by Senator Harsdorf 231
6- 2. S. Senate amendment 40 to Senate substitute amendment 1 offered by Senators Theno, Chilsen, Kreul, Harsdorf, Engeleiter and Hanaway 231
6- 2. S. Senate amendment 41 to Senate substitute amendment 1 offered by Senators Chilsen, Ellis, Lorman, McCallum, Lorge, Kreul and Engeleiter 231
6- 2. S. Senate amendment 42 to Senate substitute amendment 1 offered by Senators Lorman, Kreul and Hanaway 231
6- 2. S. Senate amendment 43 to Senate substitute amendment 1 offered by Senator Harsdorf 231
6- 3. S. Senate amendment 1 to Senate substitute amendment 1 laid on the table 233
6- 3. S. Senate amendment 2 to Senate substitute amendment 1 laid on the table 233
6- 3. S. Senate amendments 3, 4, 7 and 8 to Senate substitute amendment 1 withdrawn and returned to the author 233
6- 3. S. Senate amendments 5 and 6 to Senate substitute amendment 1 withdrawn and returned to the author 233
6- 3. S. Senate amendment 9 to Senate substitute amendment 1 placed after Senate amendment 55 to Senate substitute amendment 1 233
6- 3. S. Senate amendment 10 to Senate substitute amendment 1 withdrawn and returned to the author 233
6- 3. S. Senate amendment 11 to Senate substitute amendment 1 laid on the table, Ayes 17, Noes 16 233
6- 3. S. Senate amendment 12 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 15 234
6- 3. S. Senate amendment 13 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 14 234
6- 3. S. Senate amendment 14 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 15 234
6- 3. S. Senate amendment 15 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 15 234
6- 3. S. Senate amendment 16 to Senate substitute amendment 1 laid on the table, Ayes 20, Noes 13 234
6- 3. S. Senate amendment 17 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 15 234
6- 3. S. Senator Adelman added as a coauthor of Senate amendment 18 to Senate substitute amendment 1 235
6- 3. S. Senate amendment 18 to Senate substitute amendment 1 laid on the table, Ayes 17, Noes 15 235
6- 3. S. Senate amendment 19 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 12 235
6- 3. S. Senate amendment 20 to Senate substitute amendment 1 laid on the table, Ayes 19, Noes 13 235
6- 3. S. Senate amendment 21 to Senate substitute amendment 1 laid on the table 235
6- 3. S. Senate amendment 22 to Senate substitute amendment 1 laid on the table, Ayes 17, Noes 14 235
6- 3. S. Senate amendment 23 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 12 235
6- 3. S. Senate amendment 44 to Senate substitute amendment 1 offered by Senators Cullen, Offner, Kleczka, Bablitch, Strohl, Van Sistine, George, Maurer, Otte, Norquist, Thompson, Lee, Feingold, Moen, Czarnezki and Risser 236
6- 3. S. Senate amendment 1 to Senate amendment 44 to Senate substitute amendment 1 offered by Senator Kreul 236
6- 3. S. Senate amendment 2 to Senate amendment 44 to Senate substitute amendment 1 offered by Senator Kincaid 236

6- 3. S. Senate amendment 3 to Senate amendment 44 to Senate substitute amendment 1 offered by Senator Opitz 236
6- 3. S. Senate amendment 45 to Senate substitute amendment 1 offered by Senator Kreul 236
6- 3. S. Senate amendment 46 to Senate substitute amendment 1 offered by Senator Theno 236
6- 3. S. Senate amendment 47 to Senate substitute amendment 1 offered by Senators McCallum, Hanaway, Engeleiter, Johnston, Ellis, Davis, Harsdorf and Kreul 236
6- 3. S. Senate amendments 48 and 49 to Senate substitute amendment 1 offered by Senator Hanaway 236
6- 3. S. Senate amendment 50 to Senate substitute amendment 1 offered by Senators Chilsen, Davis, Harsdorf and Engeleiter 236
6- 3. S. Senate amendment 51 to Senate substitute amendment 1 offered by Senators Harsdorf and Theno 236
6- 3. S. Senate amendment 52 to Senate substitute amendment 1 offered by Senators Harsdorf, Theno and Davis 236
6- 3. S. Senate amendment 53 to Senate substitute amendment 1 offered by Senators Harsdorf, Hanaway, Ellis, Engeleiter, Chilsen, Theno, Lorman, Davis, McCallum and Kreul 236
6- 3. S. Senate amendment 54 to Senate substitute amendment 1 offered by Senators Hanaway, Lasee, Davis and Theno 236
6- 3. S. Senate amendment 55 to Senate substitute amendment 1 offered by Senators Lorman, Harsdorf, Chilsen, Kincaid, Hanaway, Theno, Opitz, Lasee and Johnston 236
6- 3. S. Senate amendment 56 to Senate substitute amendment 1 offered by Senators Davis and Harsdorf 236
6- 3. S. Senate amendment 57 to Senate substitute amendment 1 offered by Senators Davis, Lasee and Ellis 236
6- 3. S. Senate amendment 58 to Senate substitute amendment 1 offered by Senators Davis, Ellis, Lorman, Theno and Harsdorf 236
6- 3. S. Senate amendment 59 to Senate substitute amendment 1 offered by Senators Davis, Opitz and McCallum 236
6- 3. S. Senate amendments 60, 61 and 62 to Senate substitute amendment 1 offered by Senator Johnston 236
6- 3. S. Senate amendment 63 to Senate substitute amendment 1 offered by Senator Chilsen 236
6- 3. S. Senate amendment 64 to Senate substitute amendment 1 offered by Senators Theno, Engeleiter and Johnston 236
6- 3. S. Senate amendment 65 to Senate substitute amendment 1 offered by Senators Lorman and Engeleiter 236
6- 3. S. Senate amendment 66 to Senate substitute amendment 1 offered by Senators Davis, McCallum and Lasee 236
6- 3. S. Senate amendment 67 to Senate substitute amendment 1 offered by Senators McCallum, Lasee, Engeleiter, Ellis and Harsdorf 236
6- 3. S. Senate amendment 24 to Senate substitute amendment 1 withdrawn and returned to the author 237
6- 3. S. Senate amendment 25 to Senate substitute amendment 1 withdrawn and returned to the author 237
6- 3. S. Senate amendment 1 to Senate amendment 26 to Senate substitute amendment 1 offered by Senator Harsdorf 237
6- 3. S. Senate amendment 1 to Senate amendment 26 to Senate substitute amendment 1 adopted 237
6- 3. S. Senate amendment 26 to Senate substitute amendment 1 laid on the table 237
6- 3. S. Senate amendment 27 to Senate substitute amendment 1 laid on the table 237
6- 3. S. Senate amendment 28 to Senate substitute amendment 1 withdrawn and returned to the author 237
6- 3. S. Senate amendment 29 to Senate substitute amendment 1 laid on the table, Ayes 21, Noes 12 237
6- 3. S. Senate amendment 30 to Senate substitute amendment 1 laid on the table 237
6- 3. S. Senate amendment 31 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 14 237
6- 3. S. Senate amendments 32 and 33 to Senate substitute amendment 1 withdrawn and returned to the author 237
6- 3. S. Senate amendment 34 to Senate substitute amendment 1 laid on the table 237
6- 3. S. Senate amendment 35 to Senate substitute amendment 1 withdrawn and returned to the author 238
6- 3. S. Senate amendment 36 to Senate substitute amendment 1 laid on the table, Ayes 17, Noes 15 238
6- 3. S. Senate amendment 37 to Senate substitute amendment 1 laid on the table 238
6- 3. S. Senate amendment 38 to Senate substitute amendment 1 laid on the table 238
6- 3. S. Senate amendment 39 to Senate substitute amendment 1 laid on the table, Ayes 19, Noes 14 238
6- 3. S. Senate amendment 40 to Senate substitute amendment 1 laid on the table, Ayes 17, Noes 14 238
6- 3. S. Senate amendment 41 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 14 238
6- 3. S. Senate amendment 42 to Senate substitute amendment 1 laid on the table, Ayes 19, Noes 13 238
6- 3. S. Senate amendment 43 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 14 239
6- 3. S. Senate amendment 1 to Senate amendment 44 to Senate substitute amendment 1 placed after Senate amendment 5 to Senate amendment 44 to Senate substitute amendment 1 239
6- 3. S. Senate amendment 2 to Senate amendment 44 to Senate substitute amendment 1 laid on the table, Ayes 19, Noes 14 239
6- 3. S. Senate amendment 3 to Senate amendment 44 to Senate substitute amendment 1 laid on the table, Ayes 17, Noes 16 239
6- 3. S. Senate amendment 4 to Senate amendment 44 to Senate substitute amendment 1 offered by Senators Engeleiter, Adelman and Opitz 239
6- 3. S. Senate amendment 4 to Senate amendment 44 to Senate substitute amendment 1 laid on the table, Ayes 17, Noes 15 239
6- 3. S. Senate amendment 5 to Senate amendment 44 to Senate substitute amendment 1 offered by Senators Kleczka and Cullen 240
6- 3. S. Senate amendment 5 to Senate amendment 44 to Senate substitute amendment 1 adopted 240
6- 3. S. Senate amendment 1 to Senate amendment 44 to Senate substitute amendment 1 withdrawn and returned to the author 240
6- 3. S. Refused to lay Senate amendment 44 to Senate substitute amendment 1 on the table 240
6- 3. S. Senate amendment 44 to Senate substitute amendment 1 adopted, Ayes 17, Noes 16 240
6- 3. S. Senate amendment 45 to Senate substitute amendment 1 laid on the table 240
6- 3. S. Senate amendment 46 to Senate substitute amendment 1 laid on the table, Ayes 17, Noes 16 240
6- 3. S. Senate amendment 47 to Senate substitute amendment 1 laid on the table, Ayes 17, Noes 15 240
6- 3. S. Senate amendment 48 to Senate substitute amendment 1 placed after Senate amendment 49 to Senate substitute amendment 1 240
6- 3. S. Senate amendments 49 and 48 to Senate substitute amendment 1 withdrawn and returned to the author 240
6- 3. S. Senate amendment 50 to Senate substitute amendment 1 laid on the table, Ayes 19, Noes 13 241
6- 3. S. Senate amendments 51, 52 and 53 to Senate substitute amendment 1 considered enmasse 241
6- 3. S. Senate amendments 51, 52 and 53 to Senate substitute amendment 1 laid on the table, Ayes 19, Noes 14 241

6- 3. S. Senate amendment 54 to Senate substitute amendment 1 rejected, Ayes 18, Noes 15 241
6- 3. S. Senate amendment 55 to Senate substitute amendment 1 laid on the table, Ayes 19, Noes 14 241
6- 3. S. Senate amendment 9 to Senate substitute amendment 1 laid on the table, Ayes 19, Noes 14 241
6- 3. S. Senate amendments 56, 57 and 58 to Senate substitute amendment 1 considered enmasse 241
6- 3. S. Senate amendments 56, 57 and 58 to Senate substitute amendment 1 laid on the table 242
6- 3. S. Senate amendment 59 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 14 242
6- 3. S. Senate amendment 60 to Senate substitute amendment 1 laid on the table, Ayes 19, Noes 14 242
6- 3. S. Senate amendment 61 to Senate substitute amendment 1 laid on the table, Ayes 19, Noes 14 242
6- 3. S. Senate amendment 62 to Senate substitute amendment 1 withdrawn and returned to the author 242
6- 3. S. Senate amendment 63 to Senate substitute amendment 1 laid on the table, Ayes 22, Noes 10 242
6- 3. S. Senate amendment 64 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 14 242
6- 3. S. Senate amendment 65 to Senate substitute amendment 1 laid on the table 243
6- 3. S. Senate amendment 66 to Senate substitute amendment 1 laid on the table 243
6- 3. S. Senate amendment 67 to Senate substitute amendment 1 laid on the table 243
6- 3. S. Senate amendment 68 to Senate substitute amendment 1 offered by Senator Theno 243
6- 3. S. Senate amendment 68 to Senate substitute amendment 1 withdrawn and returned to the author 243
6- 3. S. Senate amendment 69 to Senate substitute amendment 1 offered by Senator Johnston 243
6- 3. S. Senate amendment 69 to Senate substitute amendment 1 laid on the table, Ayes 19, Noes 14 243
6- 3. S. Senate amendment 70 to Senate substitute amendment 1 offered by Senator Chilsen 243
6- 3. S. Senate amendment 70 to Senate substitute amendment 1 laid on the table, Ayes 21, Noes 12 243
6- 3. S. Senate amendment 71 to Senate substitute amendment 1 offered by Senators Lorman and Kincaid 243
6- 3. S. Senate amendment 71 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 15 243
6- 3. S. Senate amendment 72 to Senate substitute amendment 1 offered by Senator Harsdorf 243
6- 3. S. Senate amendment 72 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 15 243
6- 3. S. Senate amendment 73 to Senate substitute amendment 1 offered by Senator Chilsen 244
6- 3. S. Senate amendment 73 to Senate substitute amendment 1 laid on the table, Ayes 18, Noes 15 244
6- 3. S. Senate substitute amendment 1 adopted, Ayes 17, Noes 16 244
6- 3. S. Ordered to a third reading 244
6- 3. S. Rules suspended 244
6- 3. S. Read a third time and passed, Ayes 17, Noes 16 244
6- 3. S. Printed engrossed by direction of the Senate Chief Clerk.
6- 3. S. Ordered immediately messaged 244
6- 7. A. Received from senate 250
6- 7. A. Read first time and referred to committee on Rules . . 250
6- 7. A. LRB correction (senate substitute amendment 1) . . . 250
6- 7. A. LRB correction (senate amendment 44 to senate substitute amendment 1) 251
6- 8. A. LRB correction (engrossed bill) 253
6- 8. A. Assembly amendments 1, 2 and 3 offered by Representative Hauke 252
6-16. A. Made a special order of business at 9:01 A.M. on 6-17 pursuant to Assembly Resolution 13 265
6-17. A. Assembly amendment 4 offered by Representative Loftus 266
6-17. A. Assembly amendments 5, 6, 7 and 8 offered by Representative R. Thompson 266
6-17. A. Read a second time 267
6-17. A. Assembly amendments 1, 2 and 3 laid on table 267
6-17. A. Assembly amendment 4 laid on table 267
6-17. A. Assembly amendment 5 laid on table, Ayes 80, Noes 17 267
6-17. A. Assembly amendment 6 laid on table, Ayes 87, Noes 10 268
6-17. A. Assembly amendment 7 laid on table, Ayes 89, Noes 8 268
6-17. A. Assembly amendment 8 laid on table, Ayes 67, Noes 30 268
6-17. A. Assembly amendment 4 withdrawn from table, Ayes 55, Noes 42 269
6-17 A. Assembly amendments 1 through 5 to assembly amendment 4 offered by Representative R. Thompson 266
6-17. A. Assembly amendment 6 to assembly amendment 4 offered by Representatives T. Thompson, Radtke, R. Travis, Goodrich and Tregoning 266
6-17. A. Assembly amendment 1 to assembly amendment 4 placed under call of the House 269
6-17. A. Assembly amendment 2 to assembly amendment 4 laid on table, Ayes 55, Noes 42 269
6-17. A. Assembly amendment 3 to assembly amendment 4 laid on table 269
6-17. A. Assembly amendment 4 to assembly amendment 4 laid on table 269
6-17. A. Assembly amendment 5 to assembly amendment 4 laid on table 269
6-17. A. Call of the House lifted 270
6-17. A. Assembly amendment 1 to assembly amendment 4 laid on table 270
6-17. A. Division of the question requested by Representative Johnson on assembly amendment 6 to assembly amendment 4 270
6-17. A. Point of order raised by Representative T. Thompson that motion not in order 270
6-17. A. Point of order taken under advisement by the Chair 270
6-17. A. Assembly amendment 7 to assembly amendment 4 offered by Representatives Loftus, Johnson and Munts 266
6-17. A. Assembly amendment 7 to assembly amendment 4 laid on table 270
6-17. A. Assembly amendment 1 to assembly amendment 4 withdrawn from table 270
6-17. A. Chair ruled point of order raised on assembly amendment 6 to assembly amendment 4 not well taken 270
6-17. A. Assembly amendment 8 to assembly amendment 4 offered by Representatives Loftus, Holschbach, Johnson and Munts 266
6-17. A. Assembly amendments 9 and 10 to assembly amendment 4 offered by Representative Radtke . 266
6-17. A. Assembly amendment 11 to assembly amendment 4 offered by Representatives Rude, Porter, Cowles, Goodrich and Rosenzweig 266
6-21. A. Assembly amendment 12 to assembly amendment 4 offered by Representatives Rude, Porter, Cowles, Goodrich and Rosenzweig 272
6-21. A. Assembly amendment 9 offered by Representatives Loftus and Johnson 272
6-21. A. Request for division of the question on assembly amendment 6 to assembly amendment 4 withdrawn 272
6-21. A. Assembly amendment 10 offered by Representatives T. Thompson, R. Travis, Stitt, Matty, Tregoning, Radtke, Jaronitzky, Panzer, Donoghue, Wimmer, Stewart, Goodrich, Lucklardt, Larson, Schneiders, Bradley, Kasten, Rosenzweig, Nelsen, Zeuske, Schober, Buettner, Prosser, Byers, Merkt, Young, Walling, Van Gorden, Quackenbush, Cowles, Huelsman, Rude, Turba, Manske and Foti 272
6-21. A. Assembly amendment 13 to assembly amendment 4 offered by Representatives Loftus, Johnson and Munts 272
6-21. A. Assembly amendment 6 to assembly amendment 4 rejected, Ayes 53, Noes 43 272

6-21. A. Point of order raised by Representative T. Thompson that assembly amendment 1 to assembly amendment 4 not properly before House as it is identical to assembly amendment 6 to assembly amendment 4 274
6-21. A. Chair ruled point of order well taken 274
6-21. A. Assembly amendment 8 to assembly amendment 4 **adopted**, Ayes 55, Noes 42 273
6-21. A. Assembly amendment 9 to assembly amendment 4 rejected, Ayes 55, Noes 42 273
6-21. A. Assembly amendment 10 to assembly amendment 4 rejected, Ayes 55, Noes 41 273
6-21. A. Assembly amendment 11 to assembly amendment 4 rejected, Ayes 55, Noes 42 274
6-21. A. Assembly amendment 12 to assembly amendment 4 withdrawn and returned to authors 274
6-21. A. Assembly amendment 13 to assembly amendment 4 **adopted** 274
6-21. A. Assembly amendment 14 to assembly amendment 4 offered by Representative R. Thompson 272
6-21. A. Assembly amendment 14 to assembly amendment 4 laid on table 274
6-21. A. Refused to reject assembly amendment 4, Ayes 45, Noes 52 274
6-21. A. Point of order raised by Representative Stitt that assembly amendment 4 not properly before House due to need to be referred to joint survey committee on Retirement Systems 274
6-21. A. Point of order taken under advisement by the Chair 274
6-21. A. LRB correction (assembly amendment 9) 277
6-21. A. Refused to reject assembly amendment 9, Ayes 44, Noes 53 275
6-21. A. Assembly amendment 9 **adopted**, Ayes 53, Noes 43 .. 275
6-21. A. Assembly amendment 10 laid on table, Ayes 54, Noes 42 275
6-21. A. Assembly amendment 11 offered by Representatives Medinger and Smith 272
6-21. A. Assembly amendment 11 laid on table, Ayes 50, Noes 47 275
6-21. A. Chair ruled point of order raised on assembly amendment 4 not well taken 276
6-21. A. Assembly amendment 15 to assembly amendment 4 offered by Representatives Johnson and Loftus .. 272
6-21. A. Assembly amendment 15 to assembly amendment 4 **adopted** 276
6-21. A. Assembly amendment 4 **adopted**, Ayes 52, Noes 45 .. 276
6-21. A. Assembly amendment 12 offered by Representative R. Thompson 272
6-21. A. Assembly amendment 12 laid on table 276
6-21. A. Ordered to a third reading, Ayes 53, Noes 44 276
6-21. A. Rules suspended 276
6-21. A. Read a third time 276
6-21. A. Refused to nonconcur in, Ayes 44, Noes 53 276
6-21. A. **Concurred in** as amended, Ayes 53, Noes 44 276
6-21. A. Ordered immediately messaged 277
6-22. S. Received from Assembly amended and concurred in as amended, (Assembly amendments 8, 13 and 15 to Assembly amendment 4, and Assembly amendments 4 and 9 adopted) 259
6-23. S. Senate amendment 1 to Assembly amendment 4 offered by Senators Cullen, Offner, Risser, Bablitch, Kleczka, Adelman, Czarnezki, Feingold, George, Kincaid, Lee, Maurer, Moen, Norquist, Otte, Strohl, Thompson and Van Sistine 261
6-23. S. Senate amendment 2 to Assembly amendment 4 offered by Senators Hanaway, Engeleiter, Theno, Opitz, Johnston, Lasee and Harsdorf 262
6-23. S. Senate amendment 3 to Assembly amendment 4 offered by Senators Opitz, Harsdorf, Davis, Theno, Hanaway, Kreul and Engeleiter 262
6-23. S. Senate amendment 1 to Assembly amendment 9 offered by Senators Cullen, Offner, Risser, Bablitch, Kleczka, Adelman, Czarnezki, Feingold, George, Kincaid, Lee, Maurer, Moen, Norquist, Otte, Strohl, Thompson and Van Sistine 262
6-23. S. Senate amendment 1 to Senate amendment 1 to Assembly amendment 9 offered by Senators Engeleiter, Chilsen and Davis 262
6-23. S. Senate amendment 4 to Assembly amendment 4 offered by Senators Engeleiter, Chilsen, Hanaway, Theno, Lorman, Davis, Opitz, Johnston and McCallum .. 262
6-23. S. Senate amendment 5 to Assembly amendment 4 offered by Senators Chilsen, Engeleiter and Harsdorf 262
6-23. S. Senate amendment 6 to Assembly amendment 4 offered by Senators Engeleiter and Chilsen 262
6-23. S. Senate amendment 1 to Assembly amendment 4 placed after Senate amendment 6 to Assembly amendment 4 262
6-23. S. Senate amendment 2 to Assembly amendment 4 laid on the table, Ayes 18, Noes 15 262
6-23. S. Senate amendment 3 to Assembly amendment 4 rejected, Ayes 17, Noes 15 263
6-23. S. Senate amendment 4 to Assembly amendment 4 rejected 263
6-23. S. Senate amendment 5 to Assembly amendment 4 rejected 263
6-23. S. Senate amendment 6 to Assembly amendment 4 rejected 263
6-23. S. Senate amendment 1 to Senate amendment 1 to Assembly amendment 4 offered by Senator Cullen 263
6-23. S. Senate amendment 1 to Assembly amendment 4 placed after Senate amendment 10 to Assembly amendment 4, Ayes 18, Noes 14 263
6-23. S. Senate amendment 7 to Assembly amendment 4 offered by Senators Harsdorf and Engeleiter 264
6-23. S. Senate amendment 7 to Assembly amendment 4 rejected, Ayes 17, Noes 15 264
6-23. S. Senate amendment 8 to Assembly amendment 4 offered by Senator Harsdorf 264
6-23. S. Senate amendment 8 to Assembly amendment 4 rejected 264
6-23. S. Senate amendment 9 to Assembly amendment 4 offered by Senator Johnston 264
6-23. S. Senate amendment 9 to Assembly amendment 4 rejected, Ayes 18, Noes 14 264
6-23. S. Senate amendment 10 to Assembly amendment 4 offered by Senator Johnston 264
6-23. S. Senate amendment 10 to Assembly amendment 4 withdrawn and returned to the author 264
6-23. S. Assembly amendment 4 placed after Assembly amendment 9 265
6-23. S. Senate amendment 1 to Senate amendment 1 to Assembly amendment 9 rejected, Ayes 21, Noes 12 265
6-23. S. Senate amendment 2 to Senate amendment 1 to Assembly amendment 9 offered by Senator Cullen 265
6-23. S. Rejection of Senate amendment 2 to Senate amendment 1 to Assembly amendment 9 refused, Ayes 14, Noes 19 265
6-23. S. Senate amendment 2 to Senate amendment 1 to Assembly amendment 9 **adopted** 265
6-23. S. Senate amendment 3 to Senate amendment 1 to Assembly amendment 9 offered by Senator Harsdorf 265
6-23. S. Senate amendment 3 to Senate amendment 1 to Assembly amendment 9 rejected, Ayes 19, Noes 14 265
6-23. S. Rejection of Senate amendment 1 to Assembly amendment 9 refused, Ayes 14, Noes 19 266
6-23. S. Senate amendment 1 to Assembly amendment 9 **adopted**, Ayes 19, Noes 14 266
6-23. S. Nonconcurrence of Assembly amendment 9 refused, Ayes 15, Noes 18 266

6-23. S. Assembly amendment 9 concurred in as amended, Ayes 18, Noes 15 266
6-23. S. Senate amendment 1 to Senate amendment 1 to Assembly amendment 4 adopted, Ayes 32, Noes 0 266
6-23. S. Senate amendment 2 to Senate amendment 1 to Assembly amendment 4 offered by Senator Davis 266
6-23. S. Senate amendment 2 to Senate amendment 1 to Assembly amendment 4 rejected 266
6-23. S. Senate amendment 3 to Senate amendment 1 to Assembly amendment 4 offered by Senator Lasee 266
6-23. S. Senate amendment 3 to Senate amendment 1 to Assembly amendment 4 rejected 266
6-23. S. Senate amendment 4 to Senate amendment 1 to Assembly amendment 4 offered by Senator Cullen 266
6-23. S. Rejection of Senate amendment 4 to Senate amendment 1 to Assembly amendment 4 refused, Ayes 15, Noes 17 267
6-23. S. Senate amendment 4 to Senate amendment 1 to Assembly amendment 4 adopted, Ayes 19, Noes 13 267
6-23. S. Senate amendment 5 to Senate amendment 1 to Assembly amendment 4 offered by Senators Engeleiter, Harsdorf and Davis 267
6-23. S. Senate amendment 5 to Senate amendment 1 to Assembly amendment 4 rejected, Ayes 18, Noes 14 267
6-23. S. Senate amendment 6 to Senate amendment 1 to Assembly amendment 4 offered by Senators Ellis and Opitz 267
6-23. S. Senate amendment 6 to Senate amendment 1 to Assembly amendment 4 rejected, Ayes 17, Noes 14 267
6-23. S. Senate amendment 7 to Senate amendment 1 to Assembly amendment 4 offered by Senator Cullen 267
6-23. S. Senate amendment 7 to Senate amendment 1 to Assembly amendment 4 adopted 267
6-23. S. Senate amendment 8 to Senate amendment 1 to Assembly amendment 4 offered by Senator Kruel 267
6-23. S. Senate amendment 8 to Senate amendment 1 to Assembly amendment 4 withdrawn and returned to the author 267
6-23. S. Senate amendment 1 to Assembly amendment 4 adopted, Ayes 17, Noes 15 267
6-23. S. Senate amendment 11 to Assembly amendment 4 offered by Senator Harsdorf 267
6-23. S. Senate amendment 11 to Assembly amendment 4 rejected, Ayes 17, Noes 14 267
6-23. S. Senate amendment 12 to Assembly amendment 4 offered by Senator Engeleiter 268
6-23. S. Senate amendment 12 to Assembly amendment 4 rejected 268
6-23. S. Point of order that Assembly amendment 4 is not germane, not well taken 268
6-23. S. Point of order that Assembly amendment 4 is not properly before the Senate, not well taken 268
6-23. S. The decision of the Chair stands as the judgement of the Senate, Ayes 19, Noes 13 268
6-23. S. Nonconcurrence of Assembly amendment 4 refused, Ayes 15, Noes 17 268
6-23. S. Assembly amendment 4 concurred in as amended, Ayes 17, Noes 15 268
6-23. S. Reconsideration of the vote by which Assembly amendment 4 was concurred in, refused, Ayes 14, Noes 18 268
6-23. S. Reconsideration of the vote by which Assembly amendment 9 was concurred in, refused, Ayes 14, Noes 19 268
6-23. S. Chief Clerk's correction 269
6-23. S. Chief Clerk's correction 269

6-23. A. Received from senate amended and concurred in as amended (senate amendment 1 as amended by senate amendments 1, 4 and 7 to assembly amendment 4 and senate amendment 1 as amended by senate amendment 2 to assembly amendment 9) 281
6-23. A. Withdrawn from senate message and taken up 281
6-23. A. Assembly amendment 1 to senate amendment 1 to assembly amendment 4 offered by Representatives Meaux and Williams 281
6-23. A. Assembly amendment 2 to senate amendment 1 to assembly amendment 4 offered by Representative Gerlach 281
6-23. A. Assembly amendment 3 to senate amendment 1 to assembly amendment 4 offered by Representative Rogers 282
6-23. A. Assembly amendment 1 to senate amendment 1 to assembly amendment 4 laid on table, Ayes 65, Noes 30 281
6-23. A. Refused to table assembly amendment 2 to senate amendment 1 to assembly amendment 4, Ayes 43, Noes 53 281
6-23. A. Assembly amendment 2 to senate amendment 1 to assembly amendment 4 placed immediately following assembly amendment 3 to senate amendment 1 to assembly amendment 4 282
6-23. A. Assembly amendment 3 to senate amendment 1 to assembly amendment 4 adopted, Ayes 95, Noes 1 282
6-23. A. Assembly amendment 2 to senate amendment 1 to assembly amendment 4 adopted, Ayes 89, Noes 7 282
6-23. A. Division of the question requested by Representative T. Thompson on senate amendment 1 to assembly amendment 4 282
6-23. A. Refused to nonconcur in Part 1 (Campaign Financing, page 4, lines 6-29) of senate amendment 1 to assembly amendment 4, Ayes 44, Noes 51 283
6-23. A. Part 1 of senate amendment 1 to assembly amendment 4 concurred in, Ayes 52, Noes 44 283
6-23. A. Point of order raised by Representative Hauke that division of question on senate amendment 1 to assembly amendment 4 not in order 283
6-23. A. Chair ruled point of order not well taken 283
6-23. A. Refused to nonconcur in Part 2 (Shared Revenue, page 11, lines 6-22) of senate amendment 1 to assembly amendment 4, Ayes 41, Noes 55 283
6-23. A. Part 2 of senate amendment 1 to assembly amendment 4 concurred in, Ayes 55, Noes 41 283
6-23. A. Refused to nonconcur in Part 3 (WISPTR, page 11, lines 23-37 and page 12, lines 1-31) of senate amendment 1 to assembly amendment 4, Ayes 42, Noes 54 284
6-23. A. Part 3 of senate amendment 1 to assembly amendment 4 concurred in, Ayes 54, Noes 40 284
6-23. A. Refused to nonconcur in Part 4 (Reapportionment, page 1, line 2, page 4, line 5 and page 9, lines 36-37) of senate amendment 1 to assembly amendment 4, Ayes 45, Noes 51 284
6-23. A. Part 4 of senate amendment 1 to assembly amendment 4 concurred in, Ayes 49, Noes 46 285
6-23. A. Refused to nonconcur in Part 5 (Judicial Ethics, page 4, line 30) of senate amendment 1 to assembly amendment 4, Ayes 38, Noes 58 285
6-23. A. Part 5 of senate amendment 1 to assembly amendment 4 concurred in, Ayes 62, Noes 34 285
6-23. A. Assembly amendment 4 to senate amendment 1 to assembly amendment 4 offered by Representative Nelsen, by request of Victor Hardwig 285
6-23. A. Assembly amendment 4 to senate amendment 1 to assembly amendment 4 rejected, Ayes 94, Noes 1 285
6-23. A. Assembly amendment 5 to senate amendment 1 to assembly amendment 4 offered by Representatives T. Thompson and R. Travis 286
6-23. A. Point of order raised by Representative Johnson that assembly amendment 5 to senate amendment 1 to assembly amendment 4 not germane 286

6-23. A. Chair ruled point of order well taken 286
6-23. A. Assembly amendment 6 to senate amendment 1 to assembly amendment 4 offered by Representative R. Travis 286
6-23. A. Point of order raised by Representative Johnson that assembly amendment 6 to senate amendment 1 to assembly amendment 4 not germane 286
6-23. A. Chair ruled point of order well taken 286
6-23. A. Remaining portion of senate amendment 1 to assembly amendment 4 concurred in, Ayes 93, Noes 0 286
6-23. A. Assembly amendment 1 to senate amendment 1 to assembly amendment 9 offered by Representatives Matty, Donoghue, Jaronitzky and Cowles 286
6-23. A. Assembly amendment 1 to senate amendment 1 to assembly amendment 9 rejected, Ayes 59, Noes 37 286
6-23. A. Senate amendment 1 to assembly amendment 9 concurred in, Ayes 93, Noes 3 286
6-23. A. Ordered immediately messaged 287
6-24. S. Received from Assembly, Senate amendment 1 to Assembly amendment 4 amended and concurred in as amended, (Assembly amendments 2 and 3 to Senate amendment 1 to Assembly amendment 4 adopted), and Senate amendment 1 to Assembly amendment 9 concurred in 271
6-24. S. Rules suspended and taken up 271
6-24. S. Assembly amendment 2 to Senate amendment 1 to Assembly amendment 4 concurred in 271
6-24. S. Assembly amendment 3 to Senate amendment 1 to Assembly amendment 4 concurred in, Ayes 18, Noes 6 271
6-24. S. Action ordered immediately messaged 271
6-28. S. Chief Clerk's correction 272
7- 1. S. Report correctly enrolled.
7- 6. S. Presented to the Governor on 7-1-83 291
7- 6. S. Report approved by the Governor in part and vetoed in part on 7-1-83 276
(1983 WI Act No. 27 - Published 7-1-83)
(For action on vetoed portions of the bill see July 1983 Special Session Bulletin.)
(1983 WI Act 27 - Supplement - Published 7-22-83)

Senate Bill 84

AN ACT to amend 66.40 (24) (a) of the statutes, relating to raising the competitive bidding limit for city housing authorities and for county veterans housing authorities. (FE)

1983
2-10. S. Introduced by Senators **Hanaway, Cullen, Chilsen, Offner** and **Lasee**; cosponsored by Representatives **Radtke, Prosser, Young, Walling** and **Stewart.**
2-10. S. Read first time and referred to committee on Urban Affairs and Government Operations 76
2-22. S. Fiscal estimate received.
2-24. S. Public hearing held.
3-16. S. Report introduction and adoption of Senate substitute amendment 1, Ayes 4, Noes 0 and passage as amended recommended, Ayes 4, Noes 0 114
4-12. S. Read a second time 145
4-12. S. Senate substitute amendment 1 adopted 145
4-12. S. Ordered to a third reading 145
4-12. S. Rules suspended 145
4-12. S. Read a third time and passed 145
4-12. S. Ordered immediately messaged 145
4-14. A. Received from senate 130
4-14. A. Read first time and referred to committee on Local Affairs 131
4-27. A. Public hearing held.
11- 9. A. Executive session held.
11- 9. A. Assembly amendment 1 offered by committee on Local Affairs 594
12-14. A. Report assembly amendment 1 adoption, Ayes 14, Noes 0, concurrence recommended by committee on Local Affairs, Ayes 14, Noes 0 596
12-14. A. Referred to committee on Rules 596

1984
3- 1. A. Placed on calendar 3-7 by committee on Rules.
3- 7. A. Read a second time 870
3- 7. A. Assembly amendment 1 adopted 870
3- 7. A. Ordered to a third reading 870
3- 7. A. Rules suspended 870
3- 7. A. Read a third time and concurred in as amended 870
3- 7. A. Ordered immediately messaged 870
3- 8. S. Received from Assembly amended and concurred in as amended, Assembly amendment 1 adopted 683
3-15. S. Assembly amendment 1 concurred in 719
3-15. S. Action ordered immediately messaged 721
3-16. S. Report correctly enrolled.
5- 9. S. Presented to the Governor on 5-4-84 901
5-16. S. Report approved by the Governor on 5-10-84 904
(1983 WI Act No. 444 - Published 5-17-84)

Senate Bill 85

AN ACT to create 458.01 (1m) (c) of the statutes, relating to exempting from cosmetology statutes services performed on a family member without compensation. (FE)

1983
2-10. S. Introduced by Senators **Theno, Lorman, Norquist** and **Johnston**; cosponsored by Representative **Jaronitzky.**
2-10. S. Read first time and referred to committee on Health, Education, Corrections and Human Services 76
2-23. S. Fiscal estimate received.
1984
4-11. S. Failed to pass pursuant to Senate Joint Resolution 2 884

Senate Bill 86

AN ACT to create 73.09 (8) and (9) of the statutes, relating to revoking assessors' certificates and to reassessments by the department of revenue. (FE)

1983
2-10. S. Introduced by Senator **George**; cosponsored by Representative **Ullchny.**
2-10. S. Read first time and referred to committee on Urban Affairs and Government Operations 76
3-10. S. Public hearing held.
3-16. S. Fiscal estimate received.
5-10. S. Report introduction and adoption of Senate substitute amendment 1, Ayes 4, Noes 0 and passage as amended recommended, Ayes 4, Noes 0 191
5-17. S. Read a second time 203
5-17. S. Referred to joint committee on Finance 203
1984
4-11. S. Failed to pass pursuant to Senate Joint Resolution 2 884

Senate Bill 87

AN ACT to amend 1.11 (2) (intro.); and to create 145.023 of the statutes; and to affect laws of 1979, chapter 262, section 5; and laws of 1979, chapter 262, section 6 (2), relating to mound private sewage systems and granting rule-making authority. (FE)

1983
2-15. S. Introduced by Senators **Opitz, Lasee, Lorge, Harsdorf, Chilsen** and **Ellis**; cosponsored by Representatives **Donoghue, Goodrich, Turba, Kasten, Radtke, Bradley, Gilson, Jaronitzky, Lockhardt, Young, Goetsch, Stitt, Wimmer, Walling, Tregoning, T. Thompson** and **Huckman.**
2-15. S. Read first time and referred to committee on Energy and Environmental Resources 79
3- 2. S. Fiscal estimate received.
5- 3. S. Public hearing held.
1984
4-11. S. Failed to pass pursuant to Senate Joint Resolution 2 884

Lawmakers will back Earl vetoes: Dems

The Associated Press

Senate and Assembly Democrats said Friday they expect lawmakers will sustain most, if not all, of the 70 vetoes Gov. Anthony Earl made in signing the $10.1 billion 1983-85 budget into law.

Senate Majority Leader Timothy Cullen, D-Janesville, said he has asked the governor to schedule consideration of the budget vetoes during the Legislature's special session on legislative reapportionment beginning Monday, July 11.

Assembly Majority Leader Gary Johnson, D-Beloit, said the governor indicated to him that he would favor allowing lawmakers to take up the vetoes during the special session.

In signing the bill into law early Friday, Earl characterized it as a package "we can afford," and one which would not only solve the state's current problems, but "benefit us for the remainder of the decade."

Earl chose to item-veto 70 provisions in the budget, which contains a record $707.3 million in new tax increases.

Among the key items Earl eliminated were a legislative reapportionment plan, a requirement for chiropractic coverage under most health insurance plans, school board veto authority over the creation of special tax districts and a plan calling on the state to pick up local governments' general relief expenses.

"There's a likelihood that almost all, if not all, of the governor's vetoes will be sustained," Cullen said.

Cullen, Johnson and Assembly Speaker Thomas Loftus, D-Sun Prairie, said there were "no surprises" among the governor's list of vetoes.

All three agreed that Earl's elimination of a plan under which chiropractic services would be covered under most health insurance plans would be the most likely veto override, but at the same time expressed doubt that it would actually happen.

"I wouldn't definitely say it will be overridden," Johnson said. "But it is controversial."

Loftus described most of the governor's vetoes as "bipartisan" eliminations in "extraneous areas of the budget."

Republican Senate and Assembly leaders were out of town Friday and unavailable for comment on the budget vetoes.

Earl commended the Legislature for its "discipline and courage" in approving a budget earlier than usual, as well as praising them for putting together a package that did not use tax increases for a "Christmas tree of new programs."

He said 48 percent of the general purpose tax increases will be used to pay for debts incurred from the previous administration of Republican Gov. Lee Dreyfus, and another 40 percent will be returned to cities in the form of property tax relief in order to defer the need for large increases in local property taxes.

Among the budget's largest taxes are a 10 percent surcharge on personal and corporate income taxes in 1983 and 1984 and a 2-cent increase in the state's 13-cent-a-gallon gasoline tax on Aug. 1. That will increase to 16 cents a gallon on July 1, 1984.

Despite those increases, Earl said the budget represents the smallest percentage increase in a state budget since 1963. He said the 1983-85 package is only 3.4 percent higher than the figure arrived at when doubling the 1981-83 budget.

• Child abuse oppenents mad at Earl

(Continued from Page 19)

the Dane County Youth Commission, called it a "callous and cynical rape of the concept by DHSS with the help of the governor's red-line veto power."

(Bardales) said the youth commission, which actively supported the Children's Trust Fund, was "extremely disappointed that child abuse prevention as a primary focus has been raffled off from the bill."

Earl's partial veto means there is "no guarantee that the funds will be used for the intended purposes," Bell said. In addition, the Child Abuse and Prevention Board was empowered to raise funds from private sources but "nobody is going to donate to Health and Social Services," she said.

"This just creates another little bureaucracy, a way to pay another person's pay in the department," Bell said.

"We wanted to get at more of child abuse before the pain and suffering happens," she said. "There are ways to do that: education, public awareness, identifying parents who are at risk. But there is no provision now, with the vetoes, to make sure the money goes for that purpose."

Bell said she heard rumors last week that Earl was considering making changes in the program, but that she was assured that "the concept was still there and the program would remain basically intact."

"When you read this language, that's just not true," she said.

Overturning the veto is "one option that's open to us — we'll have to decide on that later," Bell said. The program had strong bipartisan support in committee, she said.

A two-thirds majority in the Legislature is required to overturn a veto.

Budget hurts Dems' friends, Earl admits

The Associated Press

Gov. Anthony S. Earl says not all the costs involved in the 1983-85 state budget bill are in dollars and cents.

Earl, who signed the $10.1 billion bill and disclosed his partial vetoes Friday, commented that, "In this budget, in our first six months (in office), we've had to break with our traditional allies in labor.

"We've had to come close to a break with our friends in the educational community, regrettably," he added.

"And we've come to a break with the mayor and the county executive in our largest city and county (of Milwaukee)," Earl said.

"That's not business as usual," he said.

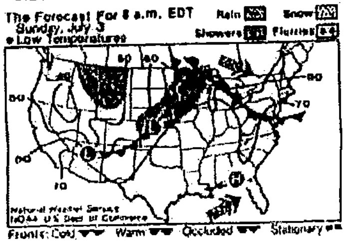
He referred to disputes over the issues of financing unemployment compensation, aid to education, local jail prisoners and state payment for local welfare costs.

Earl blamed the economic situation and a deficit inherited from the Republican Dreyfus administration for contributing to the difficulty of the budget-setting process.

Today's Weather

The Forecast For 8 a.m. EDT Sunday, July 3
• Low Temperatures

Rain | Snow | Showers | Flurries



Fronts: Cold Warm Occluded Stationary

The forecast for the remainder of today calls for partly cloudy, warm and humid weather, with a chance of showers and thunderstorms tonight. Tonight's low will be in the 60s.

Sunday will also be partly cloudy, as well as warm and humid, with highs in the upper 80s.

It'll be warm and humid on Independence Day, with a chance of thunderstorms possibly putting a damper on fireworks displays. Showers will linger into Tuesday, with the outlook partly cloudy on Wednesday. Temps will range from lows in the 60s to highs in the 80s.

Meanwhile, around the rest of the nation, thunderstorms extended from the central Great Lakes into the lower Ohio Valley on Friday, and tornadoes touched down at Knox, Ind., Bart Ridge, Ill., and about 60 miles northeast of Lafayette, Ind.

STATISTICS

Temperatures

Highest .... 84 at 4:50 p.m. Friday
Lowest .... 65 at 2:30 a.m. today
Normal high, 82 ...... Normal low, 57
In past 24 hours .... .10 inches
June total .... .34 inches
1983 total .... 14.17 inches
Normal to date .... 14.74 inches

Madison water pumpage

ACTUAL PUMPAGE
Yesterday ..... 32.2 million gallons
PREDICTED PUMPAGE
Today .... 29 million gallons

Degree Days

Degree days yesterday 0
For the month 0
For the season 147
A year ago 85

At 8 a.m. Today

Humidity 85%
Dew point 68
Wind .... 8 at 11 mph

HOURLY

Madison

YESTERDAY		TODAY	
Noon	71	1 a.m.	67
1 p.m.	78	2 a.m.	66
2 p.m.	79	3 a.m.	66
3 p.m.	81	4 a.m.	71
4 p.m.	81	5 a.m.	68
5 p.m.	83	6 a.m.	70
6 p.m.	81	7 a.m.	68
7 p.m.	81	8 a.m.	70
8 p.m.	77	9 a.m.	73
9 p.m.	73		
10 p.m.	70		
11 p.m.	67		
Midnight	65		

The Madison area weather conditions and forecasts are revised hourly and broadcast continuously over weather radio station WXJ-87 at 162.55 MHz, a VHF-FM frequency.

Lake Mendota temperature 73

ON RECORD

Highest this date .... 96 in 1911
Lowest this date .... 46 in 1968
Wettest this date .... 3.04 inches in 1980

THE SUN

	Rise	Set
Today	5:22 a.m.	8:41 p.m.
Tomorrow	5:22 a.m.	8:40 p.m.

Wisconsin

	Hi	Lo	Prp	Outlook
Milwaukee	82	64	.23	rain
LaCrosse	84	65	.43	rain
Green Bay	81	62		rain
Superior	78	56	trace	rain

The Nation

	Hi	Lo	Prp	Outlook
Anchorage	58	52	.20	cloudy
Atlanta	90	71	.84	clear
Boston	87	62		cloudy
Chicago	82	64	.55	cloudy
Cleveland	88	68	.35	cloudy
Dallas	97	76		clear
Denver	88	60		clear
Des Moines	90	70	.02	cloudy
Detroit	85	69	.15	cloudy
Honolulu	87	72		clear
Las Vegas	88	73		clear
Little Rock	93	75		cloudy
Los Angeles	77	67		cloudy
Miami	88	81		cloudy
Minneapolis	84	65	.03	cloudy
New Orleans	90	71	1.77	cloudy
New York	90	67		clear
Philadelphia	79	60		clear
Phoenix	108	78		clear
St. Louis	92	77		clear
Salt Lake City	90	69		cloudy
San Francisco	63	55		clear
Seattle	67	58	.08	rain
Tampa	90	74	.10	cloudy
Washington	85	67		[illegible]

Area Briefs

Stoughton pool costs examined

STOUGHTON — The Citizens Advisory Committee for recreation will check cost estimates, a feasible location, and a possible referendum in April 1984 for construction of an outdoor swimming pool.

The directive came from the council's community affairs committee in a joint meeting between the two groups Thursday night.

If an outdoor pool is built, "we should look at city-township cooperation in its cost. Townships are willing to go along with financing the ambulance, senior citizen programs and some recreation programs. I think we should address city-township cooperation right from the start," said Ald. Judy Wilcox. A bond issue referendum or family membership in a pool are two possible financing methods for the proposed project, she said.

An algae problem at the Mandt Park Pond, which is currently used for municipal swimming, was discussed. Chlorine and an algae-killing chemical are currently used at the pond site.

In other action, the committee voted to direct the recreation director to hasten the transfer of the hockey rink from its current winter location at Norse Park to Amundson Park by Nov. 1. A temporary shelter is also to be made available to skaters at Amundson Park.

9 liquor licensees pay up tax bills

Nine Madison businesses listed as having unpaid state or local taxes or assessments had paid their bills by 4:30 p.m. Friday.

Paying their bills were Boston's Restaurant, Brat-Haus Family Pub, Clancy's and Co., Cue-Nique Billiards, Jesse's Liquor Store, Mort's Place, Pete's Tikes, Town Pump and the Willy Boat. Still having unpaid bills are the Lake Edge Tavern and Nakoma Lanes. Under city law, liquor licenses — which come up for renewal July 1 — cannot be issued to establishments with unpaid taxes or assessments. Once the bills are paid, the liquor license is reinstated.

State senator fined for hit-and-run

JEFFERSON (AP) — Sen. David Opitz, R-Port Washington, was fined $50 after pleading no contest to a charge of hit-and-run driving. Opitz, 37, was charged with failing to stop after his truck allegedly hit a car driven by John Fall of Port Washington May 19 in the parking lot of Port Washington's MacDonald's restaurant.

Opitz was not present at the hearing Thursday, but sent a letter in which he said: "I was not aware at the time that my vehicle was involved in an accident, since I did not feel a collision."

According to the complaint, Kay Flaherty, a passenger in Fall's car, said Fall and his brother, Robert, jumped out of the car and pounded on Opitz's truck to get him to look at the damage. In the letter, Opitz said he was stopped by the Fall car on the highway but had not believed that he had been involved in an accident and therefore drove on.

Opitz said he would plead no contest because state law required that he show his driver's license when stopped by Fall.

The case was held in Jefferson County Circuit Court after three Ozaukee County judges disqualified themselves.

Dairy herds rise with unemployment

Unemployment in the cities may mean an increase in dairy cows in the country, a University of Wisconsin-Platteville dairy economist says.

Robert Cropp said the number of dairy herds in Wisconsin rose from 43,900 in August 1982 to 44,100 in February 1983. He said the increase was unusual because dairy and other types of farms in the state have been disappearing steadily since the early 1970s.

Cropp speculated that most of the new herds probably belong to people who were living on farms but not milking cows at the beginning of 1982. When they got laid off from off-the-farm jobs — unemployment in Wisconsin reached record or near record levels in late 1982 — they turned to cows for income.

Cropp said these new herds are part of the reason milk production increased noticeably again this May. Almost 12.5 billion pounds of milk were produced in May, 8 percent more than the previous month and 3 percent more than in May 1982.

Justice Beilfuss leaves high court

Chief Justice Bruce Beilfuss, who will retire from the Wisconsin Supreme Court July 31, presided over the seven-member court for the last time Friday.

Beilfuss' place on the bench will be taken Aug. 1 by Sen. William Bablitch, D-Stevens Point, who was elected to the court in April. Justice Nathan Heffernan, who is next in line to Beilfuss in seniority, will become the new chief justice.

The court issued about two dozen decisions Friday, concluding its current term. Hearings will resume Sept. 6.

Beilfuss joined the court in 1964. He was elevated to chief justice in May 1976 upon the death of Horace Wilkie. "I have enjoyed my years on the court. I hope my service has been satisfactory," Beilfuss said.

2nd state AIDS case found; more likely

By DAN ALLEGRETTI
Capital Times Staff Writer

A second case of deadly AIDS disease has been confirmed in Wisconsin and state health officials are investigating a number of other suspected cases, state epidemiologist Dr. Jeffrey Davis said Friday.

Both of the confirmed cases are in Milwaukee, Davis said. Of the suspected cases, at least six are likely to turn out to be AIDS, he said.

Some of the cases now being investigated are in Madison, and others are in Milwaukee and a variety of other areas, he said.

Davis refused to provide any details on the individuals known or suspected to have AIDS.

But he said "We're no different from anywhere else," in that virtually no cases have been found anywhere outside of the high-risk groups that include sexually active homosexual men, intravenous drug users, hemophiliacs who have contracted it from tainted blood or needles, Haitians, and others who have had sexual contact with people in those groups, he said.

Cases of AIDS — Acquired Immune Deficiency Syndrome — have been confirmed in 37 states and 15 other countries, Davis said. In the United States, half of all confirmed cases are in New York City, 20 percent in California and most of the remainder in large urban areas.

"The incidence of reported cases is still low in Wisconsin, but that doesn't mean that won't change later," he said.

With both Wisconsin cases and most of the suspected cases, the victims had out-of-state contacts during the time when they may have contracted the disease, Davis said.

Both the confirmed Wisconsin victims are still alive, but "once a person has the initial opportunistic infection, the prognosis in general is not good. There is a very low two- to three-year survival rate," Davis said.

In more than 70 percent of the cases diagnosed before Jan. 1, 1982, the victims have died, he said.

Among the problems associated with both identifying AIDS and controlling its spread are that it has a long incubation period — often two years or more — and apparently is transmittable before symptoms appear, Davis said.

He emphasized, however, that people outside of the high-risk groups have little to worry about.

Kastenmeier to hold 3 town meetings

U.S. Rep. Robert Kastenmeier, D-Sun Prairie, will hold a town meeting from 7:30 p.m. to 9 p.m. Wednesday, July 6 in the Randall Room of Madison East High School.

Kastenmeier also will hold town meetings from 9:30 to 11 a.m. Thursday, July 7 in the county board room of the Sauk County Courthouse, Baraboo, and from 2 to 3 Thursday afternoon at the Beaver Dam City Hall.

Today's Records

SATURDAY, JULY 2

Today is Saturday, July 2, the 183rd day of 1983. There are 182 days left in the year.

Today's highlight in history:

On July 2, 1937, American aviator Amelia Earhart was last heard from on a flight over the Pacific Ocean.

On this date:

In 1881, President James Garfield was shot by Charles Guiteau, a disappointed office-seeker. Garfield died 2 1/2 months later.

In 1890, the Sherman Antitrust Act was passed.

In 1961, Nobel Prize-winning author Ernest Hemingway shot himself to death at his home in Ketchum, Idaho.

In 1976, North and South Vietnam were officially reunited after more than 20 years of warfare.

Ten years ago: The United States imposed new controls on the export of iron and steel scrap.

Five years ago: Former President Richard Nixon made a speech in Hyden, Ky., warning against the dangers of global Communism.

One year ago: The U.S. Supreme Court upheld a New York law barring the use of children in pornographic films, photographs or performances.

SENIOR CITIZEN ACTIVITIES

Anyone fifty years of age and over is welcome to attend these School-Community Recreation Department activities. Programs start at 1 p.m. unless otherwise noted. Special programs are at 2 p.m. after refreshments. Call 266-6070 for information.

MONDAY, July 4

No club meetings

TUESDAY, July 5

Atwood Recreation Club (ARC) — Madison Community Center, 118 N. Fairchild. The movie "Chocolate from the Bean" at 12:30 p.m. followed by cards and games.

Older Adult Club (OAKS) — Madison Community Center, 112 North Fairchild. OAKS Potluck dinner, 6:30 p.m. Please bring a dish to share.

Triangle Club — Parkside Apts., 265 S. Park St. Cards and games.

WEDNESDAY, July 6

Fellowship Club — Eagles Club, 1236 Jenifer St. Cards and games.

Regent Street Club — Community room, Gay Braxton Apts., 709 Regent St. Cards and games.

Richmond Hill Club — Romnes Apartments, 540 W. Olin Ave. Cards and games.

Walking Club — Hoyt Park and Quarry — meet in lower parking lot, Hoyt Park.

THURSDAY, July 7

Hilldale Club — Segoe Terrace Senior Center, 602 Segoe Terrace. Cards and games.

North Sherman Club — Sherman Ave. United Meth. Church, 3009 N. Sherman Ave. Cards and games.

Parkside Club — Parkside Apts., 265 S. Park St. Wils Johnson will show slides and tell about the trips to Nashville and Aspen Cascade.

FRIDAY, July 8

Atwood Club — Atwood Community Center, 2425 Atwood Ave. Cards and games.

BIRTHS

METHODIST HOSPITAL

Wednesday, June 29

PETERS, Christine and Kim Mark, 2401 Pond Rd., a daughter.

Friday, July 1

TAM, Vicki and Ming, 2422 Allied Dr., a daughter.

Saturday, July 2

PAINE, Laura and William, Deerfield, a son.
GUHLEMAN, Patricia and WALL, Joel, 414 Brearly, a son.

ST. MARYS HOSPITAL

Thursday, June 30

ALLEN, Rita and Gene, McFarland, a son.
LEARN, Anne and Mike, Sun Prairie, a son.

Friday, July 1

BLAKE, Sandra and Ben, Blue Mounds, a daughter.
READ, Grace and Robert, Blue Mounds, a son.
GALLINA, Barbara and Joseph, Brooklyn, a son.
DAWE, Linda and Tom, Sun Prairie, a daughter.
GONZALEZ, Maria and Ruben, Stoughton, a son.
CAMACHO, Judy and Diego, Middleton, a son.

Saturday, July 2

TROIA, Jackie and Rick, Portage, a daughter.
GILBERT, Karen and Stuart, 4700 Eagle Crest Dr., a son.
HELLENBRAND, Carolyn and Leo, 4333 Don Carlos Dr., a son.
LAFFEN, Vickie and Robert, 206 Acacia Lane, a daughter.

MADISON GENERAL HOSPITAL

Thursday, June 30

RIPP, Sharon and Alvin, Middleton, a daughter.

Friday, July 1

NIEBAUER, Susan and Thomas, Oregon, a son.
GAGE, Janice and Robert, 14 Shelford Circle, a daughter.
HAMMERLY, Peggy and Thomas, New Glarus, a son.
MALAFA, Tracy and Mokenge, 2230 Eagle Heights, a son.
LARSON, Lori and Jeff, 5130 Piccadilly Dr., a son.

DIVINE SAVIOR HOSPITAL, Portage

Friday, July 1

JACOBSON, Mr. and Mrs. Thomas, Rio, a daughter.

DEATHS

SHOMAYER, Bruno E., 77, 603 Dickinson St., died Friday.
CHRISTENSEN, Harold B., 90, Albany, died Wednesday.
CRISCIONE, Phyllis O., 51, Wichita, Kansas, died Wednesday.
HALL, Charles R., 71, Cambridge/Oregon, died Friday.
MALONEY, Bertha, 105, Portage, died Friday.
MERRICK, Robert C., 31, Portage, died Thursday.
HINEDORF, Lorraine, 64, Lodi, died Thursday.
KINDLE, Esther R., 81, Sauk City, died Friday.
VASSUAL, Elizabeth, 84, Madison, died Thursday.
ZENKE, Lillian, 78, Mazomanie, died today.
BIGLOW, Patricia L., 45, Wonewoc/La Valle, died Thursday.

WHERE TO CALL

Birth control	256-7257	Poison center	262-3702
Child care	256-7328	Rape crisis	251-7273
Crisis help	251-2345	Rentals, state	266-7040
Dial a Prayer	233-8761	School info	266-6133
Drugs, alcohol	251-4455	Tenant union	257-0006
Info, Madison	266-4711	Time	257-4621
Info, UW	262-3400	Transit info	266-4466
Mental health	251-2341	Weather	249-6645

EXHIBIT B

Summer-long session likely

Remap passage won't be easy

The Associated Press

Gov. Anthony Earl has rejected the advice of at least one prominent legislator, Senate President Fred Risser, in declaring as a special session to handle reapportionment of legislative election districts.

Republicans complain the reapportionment map drawn by Democrats is designed to keep Republicans in the minority in the Legislature for the balance of the decade.

But Risser, D-Madison, said he advised an Earl aide, Daniel Wascher, that there is no assurance the reapportionment provision which Earl vetoed from the state budget last week would be restored by Democrats either.

Risser said the session which could begin July 11 might extend well beyond the one week.

Earl said he liked the new map, but that he vetoed it because it should be considered separately rather than as a part of the budget.

The tactic of inserting it in the budget bill four weeks ago without a public hearing might "taint the reapportionment and may indeed total the budget itself," the Democratic governor remarked.

Earl complimented the remap's sponsor, Rep. David Travis, D-Madison.

Legislators are to return to their desks next week to work on the reapportionment bill and to review Earl's 70 line-vetoes in the $16.6 billion state budget, which went into effect Friday for the 1983-85 biennium.

"I don't think it is realistic to think that this bill is going to automatically pass," Risser said.

"You must remember it was not a majority of the legislators who put reapportionment in the budget," he said. "It was a majority of the (Democratic) caucuses."

Earl and other Democratic leaders suggested it was important for legislators to strike while the iron is hot and resolve reapportionment issues quickly.

Rep. Thomas A. Loftus, Democratic speaker of the Assembly, said last week it was the leadership's intention to have Travis conduct a hearing July 11 and to get the bill to a floor vote within a few days.

The Legislature was reapportioned last year by a panel of judges after legislators could not agree on how to adjust boundaries in accord with 1980 census population shifts. The Travis map is a response to complaints about the judges' cartography.

Some legislators say the leadership should not be in such a hurry since redjustments would not really apply until election campaign time in 1984.

Risser said there is no reason lawmakers cannot deal with the matter in a regular fall session in October.

Besides, he added, the July session could last more than a week because of consideration of vetoes.

"I'd say we're going to be in town the rest of the summer," he remarked.

Common sense and locks protect bikes

The Madison Police Department's Crime Stoppers program is warning bicycle owners to use common sense and locking devices to avoid having their bikes stolen.

More than 6,000 Madison residents have had their bicycles stolen since 1981, according to police, amounting to losses of nearly $750,000. Most of the bikes were removed from open garages, front porches and in front of stores.

Traditionally, over 50 percent of all the bicycles reported stolen each year are taken during the months of June, July, August and September. The month with the least number thefts is January.

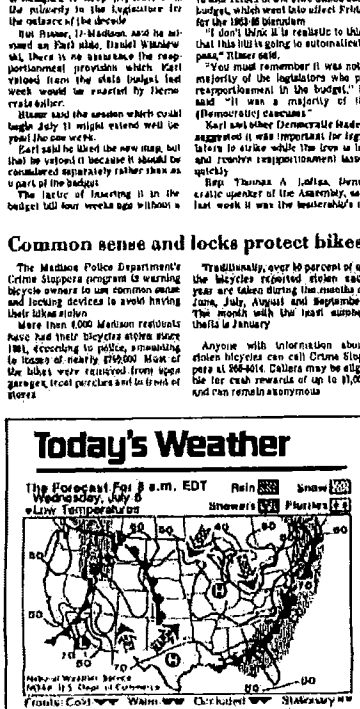
Anyone with information about stolen bicycles can call Crime Stoppers at 266-6014. Callers may be eligible for cash rewards of up to $1,000 and can remain anonymous.

Today's Weather

The Forecast For 8 a.m. EDT Wednesday, July 6

Rain Snow Showers Flurries

Low Temperatures



Note: at Weather Service Map is U.S. Dept. of Commerce

Fronts: Cold Warm Occluded Stationary

The forecast for the remainder of today calls for a chance of late afternoon showers in the extreme northwest portion of the state. Otherwise, it'll be sunny and pleasant, with a high in the 70s.

Tonight will be clear and cool, with lows in the mid-40s to low 50s. Wednesday will be sunny and warmer, with highs in the mid-70s to mid-80s. The extended forecast, for Thursday through Saturday, calls for a chance of showers in the northern part of the state on Thursday. Temperatures will range in the mid-70s to mid-80s during the days, with lows in the mid-50s at night.

Meanwhile, around the rest of the nation, a cold front pushed showers and thunderstorms through the middle Mississippi and Ohio valleys Monday.

Springfield, Mo., got 4.47 inches of rain during the morning, breaking the record there for July 4.

Tornado watches were issued for parts of north-central Kentucky, central and eastern Indiana, much of Ohio, southeastern Michigan, northwestern Pennsylvania, northwestern West Virginia and a small part of western New York state.

STATISTICS

Temperatures

Highest ... 81 at 2:15 p.m. Monday
Lowest ... 51 at 4:55 a.m. today
Normal high 82 ... Normal low 58

Past 24 hours ... 0
June total ... 3.82 inches
1983 total ... 14.60 inches
Normal to date ... 13.12 inches

Madison water pumpage

ACTUAL PUMPAGE
Yesterday ... 37.2 million gallons
PREDICTED PUMPAGE
Today ... 31.0 million gallons
If you must sprinkle, remember, 1 inch of water once a week is still clean!

Degree Days
Degree days yesterday ... 8
For the month ... 32
For the season ... 177
A year ago ... 74

At 6 a.m. Today
Humidity ... 70%
Dew point ... 54
Wind ... NE at 3 mph

HOURLY

Madison

YESTERDAY		TODAY	
Noon	71	1 a.m.	57
1 p.m.	75	2 a.m.	54
2 p.m.	78	3 a.m.	54
3 p.m.	79	4 a.m.	51
4 p.m.	79	5 a.m.	52
5 p.m.	78	6 a.m.	55
6 p.m.	76	7 a.m.	53
7 p.m.	76	8 a.m.	62
8 p.m.	73	9 a.m.	64
9 p.m.	71	Noon	64
10 p.m.	70		
11 p.m.	68		
Midnight	67		

The Madison area weather conditions and forecasts are revised hourly and broadcast continuously over weather radio station WXJ-97 at 162.55 MHz, a VHF-FM frequency.

Lake Mendota temperature ... 72

ON RECORD

Highest this date ... 98 in 1911
Lowest this date ... 40 in 1972
Wettest this date ... 1.38 inches in 1871

THE SUN

	Rise	Set
Today	5:24 a.m.	8:10 p.m.
Tomorrow	5:24 a.m.	8:10 p.m.

The Nation

	Hi	Lo	Pcp	Outlook
Milwaukee	80	55	0	cloudy
La Crosse	81	60		clear
Green Bay	77	53		clear
Superior	69	41	.02	cloudy

The Nation

	Hi	Lo	Pcp	Outlook
Anchorage	64	55		cloudy
Atlanta	81	72		rain
Boston	66	54		rain
Chicago	79	70	.11	clear
Cleveland	88	73	.46	cloudy
Dallas	88	73		cloudy
Denver	77	49		clear
Des Moines	81	62	.17	cloudy
Detroit	87	73	.20	cloudy
Honolulu	87	74		clear
Las Vegas	103	74		clear
Little Rock	89	70		cloudy
Los Angeles	81	67		clear
Miami	90	78		cloudy
Minneapolis	75	59	.03	cloudy
New Orleans	89	77	.11	cloudy
New York	83	70		rain
Philadelphia	86	74	.04	rain
Phoenix	111	77		clear
St. Louis	87	74	.16	clear
Salt Lake City	85	69		clear
San Francisco	60	57		clear
Seattle	77	57		cloudy
Tampa	91	76	.03	rain
Washington	92	76	.02	cloudy

Area Briefs

Matyka re-elected president of NOW

APPLETON (AP) — Denise Matyka of Madison was re-elected state coordinator of the Wisconsin chapter of the National Organization for Women at the state convention Sunday.

Kathleen Patrick of Milwaukee was re-elected assistant coordinator.

Chrys Moraky, Delafield, was elected secretary and Sandi Pogo of Superior, treasurer.

Other officers are Susan Carter Pearnell, Madison, legislative coordinator, and Susan Jones, Madison, state policeman.

Delegates voted to create a series of task forces, including gay rights and domestic abuse advocacy, and reform of state property laws to assure increased rights for women.

About 185 delegates attended the convention at the Paper Valley Hotel and Convention Center. A NOW spokesman said 5,000 people are members of the Wisconsin chapter.

Wrong identification in C-T story

A story in Saturday's Capital Times about a stabbing Friday night contained the victim and the alleged attacker in one paragraph. Willy Hunt Jr., 1138 S. Hancock St., was tentatively charged with conduct regardless of life for the incident. The victim was Todd M. O'Neill, 31, also of 1138 S. Hancock.

At one point, the story said Hunt suffered wounds, but it should have said O'Neill suffered the wounds.

NLRB rules against Dane Dairy

Dane County Dairy Inc. has been found guilty of an unfair labor practice by the National Labor Relations Board.

The case involves the dairy, owned by Duane Bowman, and seven members of Drivers, Salesmen, Warehousemen, Milk Processors, Canmery, Dairy Employees and Helpers Union Local 695.

NRLB administrative law judge Richard Boddie in Washington, D.C., ruled that Bowman illegally conspired in the second year of a contract. A one-year contract was signed on 1981 and in June 1981 a two-year agreement was reached.

On July 12, 1982, the union filed a complaint with the NLRB, saying Bowman refused to live up to provisions in the contract. It was brought out during the NLRB investigation that Bowman had not officially signed the 1981 contract. The NLRB ruled, however, that Bowman had verbally agreed to the terms and the non-signing was a technicality.

The NLRB ordered that Dane County Dairy live up to the contract and pay employees for salary and benefits they may have lost. It also said that the dairy can not interfere with employees' union activities.

Waunakee library

(Continued from Page 23)

furnishings and needs. The building will be constructed through long-term loans and donated funds.

Some monies will be saved, especially in Arnold, by not using federal funds in construction. The village thereby will not be required to comply with federal labor regulations and will permit it to utilize community impact.

That fact, the committee has roughly said, is in its favor, but a barrier is seen when the project gets rolling.

What are some fund-raising activities?

A dance task is planned for the community's big Volksfest street-dance in late July, with the police chief, teachers, village officials among the victims in the concessions area, a library-leg bard may be said.

Pay-type car washes are on the docket to prevent young people to get involved. Also being considered is giving local residents the chance to speak out on Waunakee's cable access channel — for a price.

In the fall, village entrepreneur Bob Gibson is planning a dinner-theater party, with a single ticket price to include dinner at a local participating restaurant and a presentation by local thespians at the high school.

An offshoot here could be the organization of a local theater group, something Waunakee does not have at the present time, said Gibson.

The committee expects community organizations to sponsor activities with funds earmarked for the library, as the Jaycees, Lions and Rotary already have done to the tune of $2,000.

There is hope that individual groups will do part of the work, including the painting and staining of woods, said Arnold. Others might make providing carpeting, cement work or landscaping a special project. People may be urged to buy some square footage of the library and have names noted on a plaque.

The private donation route is not new. Bequests and large donations for college structures, civic theaters and other buildings are given on occasion. But to try to build as much of a community library as possible through small donations, fund-raising activities and sweat-of-the-brow is unusual and commendable undertaking.

• • •

OREGON — The Emergency Medical Service is continuing its fund-raising drive to pay a portion of the cost for a new ambulance to replace its present five-year-old vehicle. Cost of the ambulance was put at $48,000 by EMS administrator Tim Olson.

Privately donated funds would help toward the purchase of an ambulance, with the remainder coming from tax funds in the area served. The district includes the village and town of Oregon, Village of Brooklyn and Towns of Rutland and Dunn. Donations can be mailed to Oregon EMS District, PO Box 92, Oregon, 53575.

• • •

Occasionally, I will include information on area community-type fund drives in this column as a service. Just send them to the column in care of The Capital Times, Box 8060, Madison, 53708, with information and identification.

Foster son to be charged

(Continued from Page 23)

pool of blood in the kitchen. She took the child to her home.

Officers arriving on the scene found Bruce Schmidt's body in a bedroom and the body of Angeline Schmidt was discovered in a utility room. Linda was wounded in the kitchen of the farm home.

McHugh had been living with the Schmidts at their farm home, about four miles south of Cambria, for about one month. He and his wife are apparently in divorce proceedings. He brought her three children with him when he came to Wisconsin and they were in the house at the time of the bloody rampage. McHugh's four children were unharmed.

McHugh was a foster child with the Schmidts as a teen-ager and had attended Cambria-Friesland High School, where he graduated in 1966.

Today's Records

TUESDAY, JULY 5

Today is Tuesday, July 5, the 186th day of 1983. There are 179 days left in the year.

Today's highlight in history: On July 5, 1811, Venezuela became the first South American country to declare its independence from Spain.

On this date:

In 1798, the French Army of Napoleon Bonaparte captured the Egyptian port of Alexandria.

In 1865, William Booth founded the Salvation Army in London.

In 1960, Texas Sen. Lyndon Johnson announced he was a candidate for the Democratic Presidential nomination.

And in 1975, the Cape Verde Islands became independent after 500 years of Portuguese rule.

Ten years ago: The United States decided against sending an ambassador to Uganda after Ugandan President Idi Amin upset diplomatic protocol by wishing President Richard Nixon a speedy recovery from the Watergate affair.

FOCUS

50 Years of All-Star Baseball

Tomorrow (via Bell's convenience we should say today) is Celebration Day, the 50th All Star Game. The first All Star Game was played July 6, 1933 — thirty years after the game was first played in 1903. Ironically, the game was held in Chicago — the same city held to be the birthplace of the modern game. The idea of pitting the best players in the game against the same opponent. The idea of this first All Star game was a result of Babe Ruth and the American League vs. the National League. Babe Ruth, the National League hero, was greatly cheered on my All Star games.

DO YOU KNOW — If they who managed the winning All Star team?

FRIDAY'S ANSWER — A stamp collector is called a philatelist.

TONIGHT

Community Events

The Epilepsy Center is sponsoring "Living With Epilepsy," free program, 625 E. Washington Ave., 7:30 p.m. "Adolescent Behavior in the Family," a video-counseling and discussion, Madison Family Institute, 503 N. Whitney Way, 7:45 p.m.

TOMORROW

Community Events

Big Brothers and Big Sisters of Dane County will meet, United Way Building, 1045 Atwood Ave., 7 p.m. "A Rainbow Fantasy" featuring two puppet plays will be presented, Madison Public Library, 201 W. Mifflin St., 2 p.m.

BIRTHS

MIDNIGHT HOSPITAL

Friday, June 3, 1983

JACOBSON, Sheila and Eric, 3854 John St., a daughter.

Saturday, June 4, 1983

HORNING, April and David, Poynette, a son.

Sunday, July 3, 1983

THOMAS, Claire and THOMPSON, Gary, 2923 Curry Parkway, a son.

MITCHELL, Kim and Bob, Oregon, a son.

Monday, July 4, 1983

AYRES, Mary Jo and Leonard, 5312 Frosty Lane, a son.

PETERSON, Rita and P. Philip Middleton, a daughter.

ST. MARY'S HOSPITAL

Saturday, July 2, 1983

CALLIES, Barbara and Paul, Sun Prairie, a son.

BAKKEN, Elizabeth and Jon, 3333 Rocky Ledge Lane, a son.

Sunday, July 3, 1983

BLOOMER, Jean and Herbert, Jefferson, a son.

COTTER, Frances and Ron, 533 Eugene Ave., a son.

HAFTLY, Mary and Tim, Cross Plains, a son.

NODERTS, Bridget and Steve, Spring Green, a son.

OLSEN, Sandra and Roy Roger, 1517 Drexler, a son.

Monday, July 4, 1983

HANSON, LeeAnn and Randy, Monona, a daughter.

DRAYER, Vicki and Bob, 2355 Winnebago St., a daughter.

FRIEDRICK, Vicki and Jim, Oregon, a son.

MILLERS, Colleen and Mark, Edgerton, a son.

ENRVAH, Terri and Ken, Fitchburg, a daughter.

SCHMIDT, Christine and Hubert, Wisconsin Dells, a son.

MADISON GENERAL HOSPITAL

Friday, July 1, 1983

BOOKER, Alexis, Madison, a daughter.

BARRETT, Chrystle, Madison, a daughter.

Saturday, July 2, 1983

CUNNINGHAM, Iris and Randall, Dallas, a son.

FLESCH, Ann and Thomas, Poynette, a son.

HOERNER, Lois and Vernon, 2631 Pleasant View Lane, a daughter.

GEER, Mary and Bill, Oregon, a daughter.

LEIA, Karla and Andrew, 88 Cindy Ave., a daughter.

LABECKI, Carol and Louis, 126 Wyoming St., a daughter.

RETERT, Mary Ellen and Mark, 1513 Delaware Blvd., a son.

Sunday, July 3, 1983

VINNIG, Marcia and Alan, 7621 Vanryan Court, a son.

WITNER, Antonia and Michael, Baraboo, a daughter.

Monday, July 4, 1983

SORENSEN, Anne and Gene, Lodi, a daughter.

JELLE, Patty and Dale, Monroe, a daughter.

COLUMBUS COMMUNITY HOSPITAL

Friday, July 1, 1983

BERNARDY, Mr. and Mrs. Michael, Sun Prairie, a daughter.

Sunday, July 3, 1983

AGUINAGA, Mr. and Mrs. Manuel, Cambria, a daughter.

SCHLEICHER, Mr. and Mrs. Brian, Beaver Dam, a daughter.

DEATHS

BINTLY, Elizabeth L., 90, Baraboo, died Saturday.

CASE, Mildred I. (Full), 83, Madison, died Sunday.

CLARKE, Sara, 71, 1704 Moller Ave., died Saturday.

CONNELLY, William E., 67, Whitewater, died Sunday.

DIPPEL, Ora L., 83, Mazomanie, died Sunday.

ENGE, Ruth A., 87, Portland, died Monday.

FINNANE, Nelle A., 73, Madison/Greenville, died Saturday.

FREDRICKS, Theodore (Ted), 86, Madison, died Thursday.

GIRCY, Gary F., 15, Dresser, died Sunday.

GILBERT, Mrs. Opalounge, 57, Sun Prairie, died Sunday.

GULLEN, Rosie F., 57, Barneveld, died Thursday.

JOHNSON, LaVerne A., 73, Mt. Horeb, died Saturday.

KRAUER, Thomas E., 27, Sun Prairie/Madison, died Sunday.

ONTMAN, Edward E. Sr., 79, Coatsville/Baraboo, died Sunday.

RIEPHILL, William A., 54, Waunakee/Milwaukee, died Sunday.

SHIRBACK, Nettie M., 94, Oregon, died Saturday.

DRIVING ARRESTS

Wednesday, June 29

Steven C. Wolnik, 22, 313 Essex Blvd., at 12:13 a.m., at E. Gorham and N. Blount — Kent A. Grossmann, 22, 2512 Delta St., at 1:32 a.m., on 100 block of Wisconsin St. — Ric A. Ford, 38, Chicago, Ill., at 12:45 a.m., at Half and Mineral Point Rd.

Thursday, June 30

Robert H. Blumke, 57, Verona, at 1:57 a.m., at Raywood and Broadway.

This is a list of arrests, not convictions.

WHERE TO CALL

Abused women	251-1345	Poison control	257-1701
Birth control	256-7257	Rape crisis	251-7273
Child care	836-7580	Reads local	266-1191
Crisis line	251-3345	Reads, state	266-5918
Drugs, alcohol	251-4334	School info	266-6232
Job Medicare	264-6368	Tenant union	257-0036
Jobs, DVR	243-2400	Time	246-1231
Mental health	251-2141	Weather	238-8443

Metro

Wisconsin State Journal   Saturday, July 16, 1983, Section 4

Metro digest	Page 2
Want ads	Page 3
Death notices	Page 3

Earl OKs remap, praises Travis

By Paul A. Rix
State government reporter

Gov. Anthony Earl signed Wisconsin's new redistricting map into law Friday and saluted a Madison legislator for his work on a bill the governor said would withstand any legal challenge.

The action culminated a weeklong special session of the Legislature, called by Earl, to replace a reapportionment map issued a year ago by a federal court panel, sustain his 70 line-item vetoes in the state budget, and pass a bill giving school officials more say in urban renewal projects.

Earl said no redistricting map could be made perfect, but the plan drawn by majority Democrats in the Senate and Assembly "is the fairest in the history of the state."

The Constitution directs legislators to redistrict every 10 years to reflect population changes. A partisan feud over boundary lines for the 1980s has dragged on for almost two years with prospects of another lawsuit by unhappy Republicans on the horizon.

At a noon bill-signing in a stifling conference room at the Capitol, Earl:

• Praised Rep. David Travis, D-Madison, for his fortitude in sticking with the reapportionment effort despite what the governor termed "extensive" editorial criticism.

Travis, the governor added, almost single-handedly shouldered the burden of trying to improve upon the 1982 court plan favored by minority Republicans.

• Vowed he would devote more time next week to stalemated negotiations between the Wisconsin State Employees Union and the state Department of Employment Relations, which represents the Earl administration.

Contracts for WSEU members and other union-represented state employees expired June 30. The governor said he believed a mediator might be useful at this point in bringing sides together and securing 1983-85 contracts.

• Said he would not call a special session later this year on economic issues until his administration receives more information about Wisconsin's economy and business climate.

The decision to hold off on a special session in October, Earl said, does not mean his administration has turned its back on the need to examine Wisconsin's high jobless rate and business trends. If legislative leaders want to call themselves back into session later this year to discuss the economy he would not oppose them.

Of the new map, Earl said the Travis-engineered bill had more even population distributions than past plans and added it had teeth of "communities of interest" by putting similar areas in a common legislative district.

The map, Earl said, makes whole his hometown of Wausau as well as Sun Prairie, Beloit and 13 other cities — a feature lacking in the judges' plan.

New districts will be used in 1984 legislative elections and for the rest of the decade. Voters still will be represented by their current legislators until a new Assembly is elected in November 1984, and takes office in 1985. Half of the Senate will also be elected under the map in November 1984.

The map does not make any major changes in districts, according to Travis. Republicans charged the plan enhances Democratic control of the Legislature for years and have hinted at a possible appeal, although the state Republican Party's financial problems may dictate otherwise. No Republicans supported the bill in the Senate where the vote for passage was 17-11. Rep. Francis Byers of Clintonville was the only Republican to join Democrats in the Assembly. The vote there was 51-44.

Earl also said he was disturbed that "good government" groups like the League of Women Voters and Common Cause had serious misgivings about the new map and insisted that legislators — not judges — were best equipped to redistrict.

Travis, who joined Earl for the signing, seemed elated that the reapportionment struggle had ended. "Tony's not going to sign it," Travis said, "he's going to drive a big stake through the middle."

In related action, Earl signed a pay plan for non-union state employees, including University of Wisconsin faculty members, which will raise salary increases in the current fiscal year and raises averaging 3.84 percent starting July 1, 1984.

Sidewalk driver faces charges

David R. Turnquist was charged Friday with endangering safety by conduct regardless of life after police said he drove his car down an East Side sidewalk, narrowly missing several people.

Turnquist, 22, of 1844 E. Washington Ave., was released on signature bond.

According to the criminal complaint, Turnquist was driving in the area of Jenifer, Paterson and Spaight streets about 6 p.m. Thursday when his car went up on the sidewalk.

People dived out of the car's path and the auto narrowly missed a bicyclist and a 5-year-old boy, the complaint said.

Here, have a look . . .

Once again, "Maxwell Street Days" have met the dog days of summer. Here, Eileen Callahan reflectively models a hat with the help of Sacred Feather salesman Charles Rogers. The hat might provide some relief from the stifling 90-degree temperatures of the last several days. Hot weather or not, the annual State Street Mall merchants' sale will continue through Sunday.

—State Journal photo by L. Roger Turner

Dean to head UW 2-year centers

By Roger A. Gribble
Education reporter

Lorman A. Ratner

The new head of the University of Wisconsin's two-year centers is Lorman A. Ratner, vice chancellor and dean of faculty at UW-Parkside since 1977.

Ratner, 51, will succeed Robert Polk, who retired last month. Daniel VanEyck has been serving as acting chancellor of the 13 two-year centers.

Ratner's title in the reorganized two-year Center System will be executive dean. These centers, which in their campuses at Richland Center, Baraboo and Janesville, provide a basic freshman-sophomore curriculum for about 8,600 students.

UW President Robert O'Neil said Ratner was chosen from about 100 candidates after a nationwide search. Last month the board chose Acting Extension Chancellor Patrick Boyle to become that unit's permanent chancellor after a nationwide search.

"We have found within the University of Wisconsin System a person who seems ideally suited to be the first executive dean of the University of Wisconsin Centers," O'Neil said.

"As a teacher and scholar of American history, Dr. Ratner has continued to pursue his academic discipline along with his administrative career," he added. "This combination of scholar-administrator provides an ideal qualification for the leadership of the UW Centers in this difficult and demanding time."

As UW president, O'Neil, a lawyer by training, continues to teach at the UW-Madison Law School.

At UW-Parkside, Ratner has been responsible for all academic activities and for review and approval of all faculty appointments, promotions and tenure recommendations. Since 1977 that campus has recruited about one-third of its professorial faculty, has planned and started 10 new undergraduate programs, received graduate work accreditation and established two graduate programs.

Ratner has also played an important role in UW System affairs, including heading a task force which studied the future development of UW-Superior.

He came to Parkside from Lehman College in the City University of New York System, where he was history Department chairman and dean of academic planning and social science. Ratner has a Ph.D. from Cornell University and a bachelor's degree from Harvard College.

He will begin his new duties in September at a salary of $63,000. His current salary is $54,500.

During a discussion of 1983-84 UW System tuition increases Thursday, Regent President David Beckwith, Milwaukee, said, "It's interesting and should be noted that the cost of instruction (which is reflected in tuition) at the centers is lower than at the non-doctoral campuses.

"A few years back we were urged to close centers because of higher costs, but we brought in efficiencies and reduced costs," he added.

County Democrats plan a picnic

The Dane County Democratic Party will sponsor a public picnic from 5:30 p.m. to 10 p.m. Tuesday at Lakeview Park in Middleton.

Tickets will cost $3 for adults and $1.50 for children. Bratwursts and games will be provided; participants should bring utensils, plates and a salad or dessert.

The public and potential party members are invited. For further information, contact Sharon Michel at 271-1439 or Jim Doyle at 238-9331.

WHA announcer Cliff Roberts dies

Clifford Roberts, 65, popular host and music programmer at WHA Radio in Madison, died Friday morning at University Hospital.

Roberts suffered a stroke Thursday after completing his morning music program on WERN; later, he suffered a cerebral hemorrhage.

Roberts graduated from the University of Wisconsin and began his association with WHA Radio as a student actor in the late 1930s. He served in the U.S. Army during World War II and then returned to WHA as a full-time announcer in 1947. For several years he also worked on commercial radio in Madison, Milwaukee and New Orleans, returning to WHA in 1962.

Roberts thought of himself as a true "classical" disc jockey, and his cultured voice announced the weather and news in between strains of Beethoven and Rachmaninoff. He often played records from his own collection.

Clifford Roberts

Roberts in 1960 and 1964 ran for alderman in the 14th Ward, losing both times. He was a member of the National Association for the Advancement of Colored People.

Surviving are two daughters, Sara, of Madison, and Jane, of New Haven, Conn.; and a son, David, of Sayreville, N.J.

A memorial service will be held at 7 p.m. Monday at the First Unitarian Society, 900 University Bay Drive. The date would have been his 66th birthday.

The family has requested that memorial contributions be made to the First Unitarian Society or to the Wisconsin Public Radio Association.

Coming in the Wisconsin State Journal

Madison blacks: a special report

The weeklong series "Madison Blacks: Their Struggle Continues," concludes with a roundtable discussion about the problems that remain for black residents, in The Wisconsin State Journal Sunday.

Pickled platypus preview

If you're looking for a pickled platypus, and bits of a 100-pound beaver, the University of Wisconsin-Madison Zoology Museum has what you want. See Sunny Schubert's story in Look Sunday.

British Open and Brewers

Continued coverage of the 112th British Open golf championship plus John Hughes in Milwaukee on the Brewers' series with the Minnesota Twins.

Lower river slows life

Along the lower reaches of the Wisconsin River, life seems to the river's pace and time itself takes on a different meaning. Ron Seely records his impressions in The Wisconsin State Journal Sunday.

A drum corps family

For 11 years, the Madison Scouts Drum and Bugle Corps has been the main interest of drummer Scott Pearson. He joined first — now his parents, brother and sister are involved. Read Look Sunday.

UW raises fees, approves funds

By Roger A. Gribble
Education reporter

A 6.1-percent average tuition increase is included in the $1.5 billion 1983-84 University of Wisconsin System budget approved Friday by the Board of Regents, but the budget provides no across the board faculty salary increase.

However, it does include guidelines for distributing $500,000 this year under the $1 million faculty recognition fund provided in the biennial budget. The money is to be used to retain outstanding faculty and to provide for promotions to associate and full professor.

Under the guidelines 343 faculty members will receive promotion payments, including 118 at UW-Madison, 11 at UW-Platteville and 11 at UW-Whitewater. There were 7,336 faculty members in the UW System at the assistant through full-professor ranks in 1982-83.

Regent Oily Fish, Hartland, said 42 percent of the operating budget comes from state tax money and the rest from tuition, fees, the federal government and private sources.

Resident undergraduate tuition will cover 37 percent of instruction costs, down from the 37.5 percent level in 1982-83.

Under the budget, resident undergraduates at UW-Madison will pay $1,106 in tuition and segregated fees in 1983-84. UW-Milwaukee students, who face higher segregated fees, will pay $1,258.

UW-Platteville resident undergraduates will pay $1,137 in tuition and segregated fees and UW-Whitewater resident undergraduates $1,061. Students in the two-year centers will pay from $841 to $951, with segregated fee rates differences from campus to campus.

Non-resident undergraduates at UW-Madison will pay $4,075 in tuition and segregated fees this fall. UW-Milwaukee non-resident undergraduates $4,118. Non-resident undergraduates rates at UW-Platteville will be $3,816 this fall and $3,738 at UW-Whitewater. Center non-residents will pay $3,383 to $3,500.

Resident medical students here will pay $3,862 this fall and non-residents $6,275. Resident students in the newly opened Veterinary School here will pay $2,100 this fall and non-residents $7,530.

Gov. Anthony Earl on Wednesday vetoed a legislative plan to permit the UW System to reallocate $2.5 million from its biennial operating budget to supplement its faculty recognition fund.

Regent President David Beckwith, Milwaukee, said he was at least heartened by Earl's endorsement of a study of the way faculty salary packages are developed. The UW would gladly participate in the study, Beckwith said, adding, "It's time we have general agreement on what the facts are."

GOP takes Dem remap plan to federal court

By Paul A. Ritz
and Paul Fimlund
State government reporters

Legislative Republicans on Wednesday filed a federal court challenge to the Democratic redistricting plan signed into law two weeks ago, that launching another power struggle over legislative boundaries.

The back-and-forth battle pitted in favor of Democrats — who control both the Senate and Assembly — where the Legislature passed and Gov. Anthony Earl signed a redistricting plan July 15.

After a closed-door meeting Wednesday morning, GOP lawyers said they would challenge that plan in U.S. District Court in Milwaukee.

Democrats said their redistricting bill made minor improvements in boundaries ordered by a panel of federal judges last year. Republicans countered that Democrats attempted to guarantee majorities in the Legislature for the remainder of the decade by gerrymandering districts.

Republicans said they will asks longer the plan in the same Milwaukee court that ordered boundaries last year. U.S. District Judge Terrence Evans, who headed the three-judge panel, left the redistricting case open.

A GOP expert in that court was Steven Baldwin, a University of Wisconsin-Madison law professor who is representing Republicans.

Baldwin said Republicans would challenge the Democratic plan by alleging it disenfranchises at least 130,000 residents by changing the districts are neither compact nor contiguous, and for other unspecified reasons.

Rep. David Travis, the Madison Democrat who led his party's redistricting effort, said the Democratic plan is "totally constitutional" and that Republicans "don't have a leg to stand on."

Legislative reapportionment is mandated every decade as population shifts can be reflected in political boundaries. The process was begun after the 1980 census. By early 1982, Democrats who controlled the Legislature were at a stalemate with Republican Gov. Lee Dreyfus. Democrats filed suit in U.S. District Court in Milwaukee asking the federal judges to draw the lines.

Democrats apparently thought they had selected a sympathetic court, but the plan judges eventually ordered was generally regarded as favorable to Republicans. That plan dictated last fall's legislative races.

Democrats attempted this year to modify the maps, first by including a major redistricting proposal as an amendment to the state budget. That strategy met with widespread criticism, and Kalt warned that the amendment would "sink" his budget, vetoed it.

He did, however, call a special session in which Democrats passed the plan with only one Republican vote, despite delaying tactics and angry protests by GOP legislators.

Baldwin met Wednesday with Assembly Minority Leader Tommy Thompson of Elroy, Senate Minority Leader James Harsdorf of Balsam Lake, Senate Assistant Minority Leader Susan Engeleiter of Menomonee Falls, Assembly Assistant Minority Leader Robert Travis of Platteville, and Rep. Randall Radtke of Lake Mills, a GOP redistricting expert.

At an afternoon press conference, Radtke said "the degree of gerrymandering" in the Democratic plan "goes beyond the scope of fair give and take." Radtke said the plan is tantamount to "grand larceny."

Radtke said because the Legislature was reapportioned last year and again this year, approximately 130,000 people could be denied the right to vote for a state senator for eight years. Senators are elected to four-year terms.

Travis said because only half of Senate districts are up for election every two years, "there are always going to be some" voters who are temporarily disenfranchised because of reapportionment.

Radtke said Republicans do not intend to introduce new boundaries in their challenge. He said Wisconsin voters will be left with the court plan or the Democratic plan.

Attorney General Bronson La Follette said the state Justice Department must be expected to represent the legislative plan signed by Earl.

Thomas Dyer of the state Republican Party said Michael Harden, GOP state chairman, had approved the challenge.

Thompson said the GOP decision to challenge came despite a party debt of about $35,000. "We've gotten out and raise independent dollars for this," Thompson said.

Owner of health club will offer free liquor

By Joe Beck
Regional reporter

FITCHBURG — The owner of the MGM Health Club says he will begin offering free liquor Sept. 1, foiling a city prohibition against the sale of alcoholic beverages in the club.

Marvin Marcus said the liquor will be available Monday through Friday from 4 to 8 p.m.

Marcus was denied a liquor license by the Fitchburg Planning Commission in May when he proposed selling liquor in the club at 3670 Breckenridge Court, just off Fish Hatchery Road.

But officials at the State Department of Revenue involved with enforcement of alcohol laws say Marcus can provide liquor at his club as long he offers it free to members and their guests, does not invite the general public, does not advertise it, and does not attempt to recover the cost through higher membership fees or other means.

James Jenkins, chief of alcohol and tobacco enforcement for the Department of Revenue, said he set forth the conditions to Marcus in a letter on July 13 after receiving an inquiry from him.

"What I want to emphasize to everyone is that my response was to a hypothetical situation posed by Marcus and is in no way a stamp of approval for his particular operation," Jenkins said. "It may or may not be operating legally depending on whether he's following those things I set out."

He added that he was concerned about the precedent Marcus was setting.

"I'm afraid that once this hits the press, it will become widespread," he said. "I'm afraid there's a loophole here that allows it."

Marcus said he was not trying to defy the Fitchburg Planning Commission or attempting to attract more people to the club, which he claims has a membership of 8,000.

"I'm doing it because I feel the people who joined the club have helped me build it to what it is today," he said. "I'm passing out the benefits to them as well as anybody who wants to join."

Marcus said he does not expect the giveaway to cause any disturbances at MGM.

"I don't think there'll be any abuses," he said. "If there are, there'll be a security guard to handle the problem."

He also denied that recently announced increases in membership fees will be used to cover the costs of the free liquor.

He said the fees are being raised to include the cost of racquetball and tennis courts, running bowling, aerobic dance and other activities. Other fees that have supported those activities are being dropped, according to Marcus.

A member of the Planning Commission who asked not to be identified said the commission had had trouble getting Marcus to comply with some of his building requirements.

He said the commission opposed the liquor license request because of concerns over parking accommodations at the club.

"We thought that the membership was so large that it could finally get out of hand," he said.

He had no comment on the free liquor plans.

Bargaining unit OKs state pact

The first of 12 state-employee bargaining units has ratified a 1983-85 labor contract.

The Wisconsin State Building Trades Negotiating Committee, AFL-CIO, which represents about 400 trades and crafts employees, ratified a two-year contract July 15, it was announced Wednesday.

The agreement must be approved by the Legislature's Joint Committee on Employment Relations, the Legislature, and Gov. Anthony Earl.

Meanwhile, the state's negotiations with its largest union are to resume in earnest this morning after a two-week break. The sides met briefly Wednesday afternoon.

Officials of the Wisconsin State Employees Union, which represents about 25,000 state workers, have criticized the state for an alleged lack of movement. The WSEU said the state has offered no pay increase in the first year.

Call
267-5454
for a FREE
personalized health
coverage weekly
HEALTH-LINE
Topic for July 25-Aug. 3
"HIGH BLOOD PRESSURE MEDICATIONS"
LISTEN
University of Wisconsin Extension
Consumer Health Education Unit

COUPON
Emberger Royal Combo
now $2.95
Regularly $4.10
Offer expires August 28, 1983
Embers
24 HOURS DAILY

COUPON
Emberger Royal & Dessert
now $2.95
Regularly $4.20
Offer expires August 28, 1983
Embers
24 HOURS DAILY

COYLE CARPET
OPEN TONITE TIL 8
SPENDING MORE TIME AT HOME?
Invest In Carpet and Make it Your Dream Home!
CARPET A HOUSE THIS SIZE FOR $755.52 +TAX
When You Do It Yourself
NYLON HI-LOW Rubberback Shag
4 Colors In stock
NYLON PATTERNED KITCHEN CARPET Urethane Back
9 Colors in stock
Bedroom 12'x10' @ $4.99 per sq. yd. $66.52
Kitchen 12'x15' @ $6.99 per sq. yd. $139.80
Family Room 12'x18' @ $6.99 per sq. yd. $167.67
Master Bedroom 12'x14' @ $5.99 per sq. yd. $111.83
Bath 6'x9' @ $4.99 $29.94
Living room 12'x20' @ $8.99 per sq. yd. $239.76
NYLON HI-LOW LOOP URETHANE BACK
5 COLORS IN STOCK
NYLON CUT & LOOP URETHANE BACK
5 Colors In Stock
PLUSH BATH CARPET 6' WIDE Non-Skid Back
3 colors in stock
NYLON HI-LOW SHAG Urethane Back
5 Colors In stock
PLUS THESE JUTE BACKS ON SALE
NYLON SAXONY PLUSH Celebro Marble 14" per sq yd 12'x15' ONLY $99.80
NYLON CUT & LOOP SAXONY 3 colors 16" per sq yd 12'x12' ONLY $111.84
NYLON SHORT PLUSH 7 Decorator colors in stock. 16" per sq yd 12'x9' ONLY $83.88
NYLON SHAG 1 color in stock 15" per sq yd 12'x10' ONLY $79.85
Bring In Your Room Measurements
OPEN 6 DAYS A WEEK
Mon-Fri 9:30-8 Saturday 9:30-5
Cash and Carry, Master Charge and American Express Bank Financing
Wisconsin's Largest Carpet Distributor
Coyle CARPET
257-0291
250-270 W. Beltline

Gmail

Erik Olson <erikrobertolson@gmail.com>

Map Update

2 messages

Erik Olson <erikrobertolson@gmail.com> **Thu, Jun 2, 2011 at 12:38 PM**
To: "billmuratdc@gmail.com" <BillMuratDC@gmail.com>, andrewstevensdc@gmail.com

Hey Guys,

So we got to see maps today but not take them with us. Mr. Ryan refused to give us maps unless we gave them maps. So I memorized as best as possible their map and then drew it out on a map in my office. I am going down to NCEC at 3pm to give it to Luke and download info. If you would like to come and see let me know. Otherwise once Luke has it all downloaded we will send stuff around.

A few bits of info
1. Mr. Ryan said that we have to come to an agreement by June 13th because that is when the state legislature wants a map.
2. The legislature plans to pass our Congressional map separately.
3. They want to pass the map in the last two weeks of June.
4. Mr. Ryan has sign off from the Fitzgerald boys to pass whatever version of a map he gives them.

The map isn't too unreasonable. We have some tweaks we want to see. Five counties in our district are chopped up.

The 2nd is comprised of all of Dane, Green, Sauk, Iowa, and Lafayette. The existing boarder in Rock Co and a small part of Richland Co.

The 5th is comprised of the cities of Milwaukee, West Milwaukee, South Milwaukee, Cudahy, St. Francis, and I believe Shorewood, Glendale and Whitefish Bay. But I am not 100%. We didn't have much time to look.

Call me with questions. 202-589-1170 is my cell.

EO

--
Erik Robert Olson
erikrobertolson@gmail.com

billmuratdc@gmail.com <billmuratdc@gmail.com> **Thu, Jun 2, 2011 at 12:41 PM**
Reply-To: billmuratdc@gmail.com
To: Erik Olson <erikrobertolson@gmail.com>

Thanks Erik.

Sent from my Verizon Wireless BlackBerry

From: Erik Olson <erikrobertolson@gmail.com>
Date: Thu, 2 Jun 2011 12:38:46 -0400
To: billmuratdc@gmail.com<BillMuratDC@gmail.com>; <andrewstevensdc@gmail.com>
Subject: Map Update

EXHIBIT C

EXHIBIT 2a

Hey Guys,

So we got to see maps today but not take them with us. Mr. Ryan refused to give us maps unless we gave them maps. So I memorized as best as possible their map and then drew it out on a map in my office. I am going down to NCEC at 3pm to give it to Luke and download info. If you would like to come and see let me know. Otherwise once Luke has it all downloaded we will send stuff around.

A few bits of info
1. Mr. Ryan said that we have to come to an agreement by June 13th because that is when the state legislature wants a map.
2. The legislature plans to pass our Congressional map separately.
3. They want to pass the map in the last two weeks of June.
4. Mr. Ryan has sign off from the Fitzgerald boys to pass whatever version of a map he gives them.

The map isn't too unreasonable. We have some tweaks we want to see. Five counties in our district are chopped up.

The 2nd is comprised of all of Dane, Green, Sauk, Iowa, and Lafayette. The existing boarder in Rock Co and a small part of Richland Co.

The 5th is comprised of the cities of Milwaukee, West Milwaukee, South Milwaukee, Cudahy, St. Francis, and I believe Shorewood, Glendale and Whitefish Bay. But I am not 100%. We didn't have much time to look.

Call me with questions. 202-589-1170 is my cell.

EO

--
Erik Robert Olson
erikrobertolson@gmail.com

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF WISCONSIN

ALVIN BALDUS, CINDY BARBERA,
CARLENE BECHEN, RONALD BIENDSEIL,
RON BOONE, VERA BOONE, ELVIRA BUMPUS,
EVANJELINA CLEEREMAN, SHEILA COCHRAN,
LESLIE W. DAVIS III, BRETT ECKSTEIN,
MAXINE HOUGH, CLARENCE JOHNSON,
RICHARD KRESBACH, RICHARD LANGE,
GLADYS MANZANET, ROCHELLE MOORE,
AMY RISSEEUW, JUDY ROBSON, GLORIA ROGERS,
JEANNE SANCHEZ-BELL, CECELIA SCHLIEPP,
and TRAVIS THYSSEN,

Plaintiffs,

TAMMY BALDWIN, GWENDOLYNNE MOORE,
and RONALD KIND,

Intervenor-Plaintiffs,

v. File No. 11-CV-562

Members of the Wisconsin Government
Accountability Board, each only in
his official capacity:
MICHAEL BRENNAN, DAVID DEININGER,
GERALD NICHOL, THOMAS CANE,
THOMAS BARLAND, and TIMOTHY VOCKE,

[Caption Continued]

VIDEOTAPE DEPOSITION

KENNETH R. MAYER, Ph.D.

Madison, Wisconsin
January 27, 2012

Susan C. Milleville, Court Reporter

and KEVIN KENNEDY, Director and
General Counsel for the Wisconsin
Government Accountability Board,

Defendants,

F. JAMES SENSENBRENNER, JR.,
THOMAS E. PETRI, PAUL D. RYAN, JR.,
REID J. RIBBLE, and SEAN P. DUFFY,

Intervenor-Defendants.

VOCES DE LA FRONTERA, INC.,
RAMIRO VARA, OLGA WARA,
JOSE PEREZ, and ERICA RAMIREZ,

Plaintiffs,

v. Case No. 11-CV-1011
JPS-DPW-RMD

Members of the Wisconsin Government
Accountability Board, each only in
his official capacity:
MICHAEL BRENNAN, DAVID DEININGER,
GERALD NICHOL, THOMAS CANE,
THOMAS BARLAND, and TIMOTHY VOCKE,
and KEVIN KENNEDY, Director and
General Counsel for the Wisconsin
Government Accountability Board,

Defendants.

I N D E X

Witness		Pages
KENNETH R. MAYER, Ph.D.		
	Examination by Mr. Kelly	5
	Examination by Mr. Kasper	216
	Examination by Mr. Poland	226

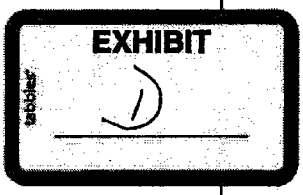
E X H I B I T S

No.	Description	Identified
1016	Handwritten notes	--
1017	December 14, 2011 expert report	127
1018	January 13, 2012 rebuttal report	129
1019	January 9, 2012 letter with attachments	135
1020	Spreadsheet comparing data	143
1021	Affidavit (*Baumgart v. Wendelberger*)	194
1022	Second Amended Complaint for Declaratory and Injunctive Relief	196
1023	Notice	207
1024	DVD containing documents responsive to subpoena	208
1025	Spreadsheet	210

(The original exhibits were attached to the original transcript and copies were provided to counsel)

(The original deposition transcript was filed with Attorney Daniel Kelly)

VIDEOTAPE DEPOSITION of KENNETH R. MAYER, Ph.D., a witness of lawful age, taken on behalf of the Defendants, wherein Alvin Baldus, et al., are Plaintiffs, and Members of the Wisconsin Government Accountability Board, et al., are Defendants, pending in the United States District Court for the Eastern District of Wisconsin, pursuant to notice and subpoena, before Susan C. Milleville, a Court Reporter and Notary Public in and for the State of Wisconsin, at the offices of Godfrey & Kahn, S.C., Attorneys at Law, One East Main Street, in the City of Madison, County of Dane, and State of Wisconsin, on the 27th day of January 2012, commencing at 9:17 in the forenoon.



A P P E A R A N C E S

DOUGLAS M. POLAND, Attorney,
for GODFREY & KAHN, S.C., Attorneys at Law,
One East Main Street, Suite 500, Madison,
Wisconsin 53703, appearing on behalf of
Plaintiffs Alvin Baldus, et al.

PETER G. EARLE, Attorney,
for LAW OFFICE OF PETER EARLE, LLC, Attorneys at Law,
839 North Jefferson Street, Suite 300,
Milwaukee, Wisconsin 53202, appearing on behalf
of Plaintiffs Voces De La Frontera, Inc.,
et al.

1 APPEARANCES (Continued)
2
3 MARIA S. LAZAR, Assistant Attorney General,
for STATE OF WISCONSIN DEPARTMENT OF JUSTICE,
17 West Main Street, Madison, Wisconsin 53703,
4 appearing on behalf of the Defendants.
5
DANIEL KELLY, Attorney,
6 for REINHART BOERNER VAN DEUREN S.C.,
Attorneys at Law, 1000 North Water Street,
7 Suite 2100, Milwaukee, Wisconsin 53202,
appearing on behalf of the Defendants.
8
9 KELLEN C. KASPER, Attorney,
for FOLEY & LARDNER, LLP, Attorneys at Law,
10 777 East Wisconsin Avenue, Milwaukee,
Wisconsin 53202, appearing on behalf of the
11 Intervenor-Defendants.
12
13 Also present: Todd S. Campbell, CLVS
Campbell Legal Video Company
14 417 Heather Lane, Suite B
Fredonia, WI 53021
15 (262) 447-2199
16
17 KENNETH R. MAYER, Ph.D.,
18 called as a witness, being first duly sworn,
19 testified on oath as follows:
20
21 EXAMINATION
22 By Mr. Kelly:
23 Q Good morning.
24 A Good morning.
25 Q Before we get started, how would you like to be

1 addressed? Is it Mr. Mayer? Professor Mayer?
2 Dr. Mayer?
3 A Doctor or professor. Whatever you prefer.
4 Q Thank you. Professor Mayer, have you been deposed
5 before?
6 A Yes, sir.
7 Q How many times?
8 A Three.
9 Q When was the last time you were deposed?
10 A I was deposed in 2009 I believe in a case in
11 Arizona. It was at that point -- I would have to
12 look at my vitae to get the name. I was working
13 for the Arizona Department of Justice on a
14 campaign finance case.
15 Q Do you recall the other two times you were
16 deposed?
17 A I was deposed in that case twice and was also
18 deposed in 2002 during the previous redistricting
19 round which was *Baumgart v. Wendelberger*.
20 Q You probably remember some of the formalities that
21 we observe in depositions then. You are probably
22 a better experienced deponent than most. A few of
23 the things that we will try to keep in mind is
24 that we will make sure that all of our answers and
25 all of my questions for that matter are verbal.

1 That is, we need to speak them all so that the
2 court reporter can take them down.
3 A Right.
4 Q So we will try to avoid shaking and nodding our
5 heads and saying uh-huh and uh-uh because those
6 can get taken down ambiguously. So if we can
7 avoid that, that would be good. I'll try not to
8 talk over the top of you when you're answering a
9 question, and, if we can do that vice versa as
10 well, that will make sure we have a nice clear
11 record.
12 A Understood.
13 Q Also, if you would be so kind as to let me know if
14 I ask a question that is not entirely clear. If I
15 ask a question you answer, I'll assume that you
16 understood what I was asking. So if there's any
17 question in your mind about what I asked, please
18 do let me know.
19 A Understood.
20 Q I would like to begin this morning by speaking
21 generally about how one creates a new legislative
22 district map. What are the factors that someone
23 needs to consider in creating a new legislative
24 district map?
25 A Well, there are a number of redistricting

1 principles. At the top of the list would be equal
2 population. With state legislative districts
3 those don't have to be exact. Wisconsin also
4 requires legislative districts to be contiguous,
5 compact, to show respect for existing political
6 subdivisions. And then there are some other
7 subsidiary factors which involve respecting
8 communities of interest, adherence to federal law
9 when it's applicable, particularly the Voting
10 Rights Act. Those are the major ones.
11 Q Are there any different standards when you're
12 drawing a state assembly or senate map as opposed
13 to a federal congressional map?
14 A Yes.
15 Q What are the differences?
16 A The primary difference is that the requirement of
17 population equality is generally much stricter for
18 congressional districts. As a rule, the
19 congressional districts must be drawn in a way
20 that gets the population as equal as possible, as
21 practicable, which in many cases means that map
22 drawers try to get the population deviations or
23 the difference between the largest and smallest
24 districts within a few people if they can't get
25 them exactly equal.

1 Q Are there any other differences between drawing a
2 congressional district as opposed to a state
3 assembly or senate district?
4 A There can be. Some of it depends on the specific
5 requirements in various states about the processes
6 that they use. But in terms of the traditional
7 redistricting principles other than the different
8 treatment of population they are typically
9 considered to be similar.
10 Q Let's go through a few of the factors that you
11 mentioned. Speaking to begin with on state
12 assembly and senate districts with respect to
13 equal population, what's the standard? How close
14 does that need to get?
15 A Well, there's no hard and fast legal rule. There
16 is a widely understood rule of thumb that
17 population deviations below 10 percent are
18 acceptable, but that isn't an iron clad legal
19 principle. But generally the population equality
20 standards for state legislative districts you have
21 a little bit more latitude, they don't have to be
22 exactly equal, and that's in part because of the
23 practical issues involved that the smaller the
24 legislative district the more difficult -- and
25 larger the number of districts the more difficult

1 it can be to get that kind of equality.
2 Q You mentioned that the 10 percent is a widely
3 understood rule the thumb. Where does that rule
4 of thumb come from?
5 A I believe there is one or more supreme court
6 decisions that I don't recall the citations off
7 the top of my head where courts have accepted
8 deviations that are in the high single digits and
9 have typically rejected plans that are over,
10 significantly over or over, the 10 percent. But
11 to the best of my knowledge it's never been
12 articulated as a firm legal principle or standard.
13 Q Do you know if the supreme court decisions that
14 talked about the 10 percent rule of thumb -- were
15 those Wisconsin Supreme Court decisions or from
16 other states?
17 A From federal.
18 Q They're federal?
19 A Yes.
20 Q So your understanding would be that 10 percent
21 rule of thumb would be as applicable in Wisconsin
22 as in any other state?
23 A Yes, with the proviso that deviations around that
24 may or may not be acceptable depending on what
25 other state interests are implicated.

1 Q Do you know of any courts that have struck down a
2 state district map when the deviation was below
3 10 percent in population?
4 A I believe there is at least one instance when --
5 and, again, I don't have the case off the top of
6 my head. But it had a population deviation that
7 was close to 10 and it was overturned and as far
8 as I can recall on the principle that the
9 10 percent principle didn't mean that you could
10 get to 9.89 and feel like you had a safe harbor.
11 Q If you recall, do you know what other factors led
12 the court to strike down that plan that had a
13 population deviation that approached 10 percent?
14 A Not as I sit here. I would have to take a look at
15 the case.
16 Q You also mentioned that one of the reasons there's
17 some degree of latitude in equal population for
18 state legislative districts are the practical
19 difficulties of getting below that threshold.
20 What kind of practical difficulties are there?
21 A Well, the smaller the legislative district we're
22 talking about a movement of an absolute number of
23 people will constitute a larger percentage. When
24 you're dealing with a congressional district of
25 700,000 to 800,000 people, moving one or ten will

1 constitute a much smaller percentage than it would
2 when you're dealing with a legislative district
3 that might be, again, depending on the state, in
4 the tens of thousands. So just in terms of the
5 mathematics of it, the percentage deviations will
6 tend to be larger even if you move the same number
7 of people.
8 Q Do you know if there are other redistricting
9 principles that could be more important than
10 equalizing population?
11 A Let me think for a second. I'm going to say --
12 well, let me split my answer into two parts. On
13 the one hand, no, because if you don't get the
14 population equality standards correct, then unless
15 there is some overwhelming compelling reason, the
16 other principles rarely, if ever, can counteract
17 that failure. On the other hand, the fact that a
18 population deviation is within what might be
19 regarded as acceptable limits -- that doesn't mean
20 that you stop and say that there's nothing else
21 that could raise questions about whether a plan
22 was legal or valid. So if you don't make the
23 population equality requirements, I think there's
24 a presumption that the plan is invalid. If you do
25 make the population equality requirements, that

1 doesn't necessarily mean that the plan is valid.
2 Q That would be because there are other factors that
3 need to be considered?
4 A That's correct.
5 Q Did we get in both pieces of your answer?
6 A Yes.
7 Q When someone who is creating a new legislative
8 district map is trying to get as equal population
9 distribution through the districts as possible,
10 will that affect other factors in redistricting?
11 For example, the traditional redistricting
12 factors?
13 A It can and usually does.
14 Q Which of the traditional redistricting factors can
15 and will be affected by achieving equal population
16 through the districts?
17 A Well, again, let me answer in two parts. First,
18 it can implicate all of them because in an effort
19 to get population equality you may well be in a
20 position where you have to give something up on
21 one of the other principles. But there are many,
22 many ways to draw districts with equal population
23 and so there will almost always, in fact, I think
24 I can state that without the qualifier, there will
25 always be alternative configurations that may do a

1 better job at meeting the requirement of equal
2 population while also showing adherence to the
3 other traditional redistricting principles.
4 Q I think you mentioned one of the other factors a
5 person drawing a legislative district map needs to
6 consider is compliance with federal law, yes?
7 A That's correct.
8 Q And in referring to the federal law that one must
9 comply with, is that primarily the Voting Rights
10 Act?
11 A Correct.
12 Q Are there others of which you're aware?
13 A There may be, but in my experience with
14 redistricting the Voting Rights Act is by far the
15 most significant. There are constitutional
16 requirements, the 14th Amendment perhaps.
17 Q Sure.
18 A But the one that in my experience most map drawers
19 keep in mind is the Voting Rights Act.
20 Q What are the two sections of the Voting Rights Act
21 that one must primarily consider in drawing new
22 legislative districts?
23 A Well, there are two sections only one of which
24 applies in Wisconsin. Section 5, when the Voting
25 Rights Act was passed, applied to certain areas of

1 the country based on the registration rates and I
2 believe turnout rates that had occurred in
3 previous presidential elections. In those states,
4 which is primarily the states of the deep south,
5 some parts of New York City and then Arizona and
6 some counties in California, these jurisdictions
7 must get any change to voting practices
8 pre-cleared by the justice department. There's an
9 office of voting rights compliance I believe is
10 what it's called that must approve these changes
11 before they go into effect. Section 5 does not
12 apply in Wisconsin, but there is another section,
13 Section 2, which has been amended several times,
14 that prohibits things like vote delusion and
15 prohibits practices that have the effect of
16 denying certain protected classes of voters from
17 an equal opportunity to elect candidates of choice
18 which has generally been construed as prohibiting
19 practices that have the effect of diluting the
20 voting power of African American voters, Latino
21 voters and other language minorities. Those are
22 the two major sections.
23 Q When we're talking about diluting the voting power
24 of a minority, what are some of the ways that that
25 can occur when we're talking about drawing a new

1 legislative district map?
2 A Well, the two most common are known as packing and
3 cracking. Packing occurs when you have very large
4 concentrations of minority voters, say African
5 American voters, in one district. If a district
6 is composed of high concentrations, the votes of
7 some of those members of that community or that
8 voting population are wasted in the sense that
9 they're not necessary to provide for an equal
10 opportunity to elect candidates of choice and
11 through an alternative district configuration it
12 would normally be possible to draw districts in a
13 different way that provided additional
14 opportunities in other seats, other districts.
15 The other common strategy is what's known as
16 cracking where you distribute minority populations
17 so that they constitute a relatively small
18 percentage of voters in a particular district that
19 are insufficient to provide for an opportunity to
20 elect candidates of their choice.
21 Q If someone were interested in making a claim that
22 a particular legislative district map violates
23 Section 2 of the Voting Rights Act, what would
24 they need to show?
25 A Well, the main supreme court case that established

1 the --
2 MR. POLAND: I want to interject
3 one objection here. I'll object to the
4 extent that it calls for a legal conclusion.
5 You can answer, Dr. Mayer.
6 THE WITNESS: Okay.
7 A In *Thornburg v. Gingles*, which was the main case
8 that interpreted the 1982 amendments to the Voting
9 Rights Act, they established a three-part test
10 which are commonly known as the prongs of the
11 *Gingles* test. The first thing you have to do is
12 show that a minority community is sufficiently
13 large and compact to allow for a district to be
14 created. The second is that you must show that
15 that community is politically cohesive. Third,
16 you must show a pattern of what's called racially
17 polarized voting in which members of the voting
18 community tend to vote for candidates that share
19 the same characteristics and that white voters
20 tend to be more supportive of white candidates and
21 less supportive of minority candidates. Then
22 there is additional evidence under the totality of
23 circumstances test that involve evidence that the
24 minority community is disadvantaged in some way
25 and does not have an equal opportunity to

1 participate.
2 Q Professor Mayer, you have written a few opinions
3 that have been submitted in the case with which
4 this deposition is connected; is that right?
5 A That's correct.
6 Q In order to provide those opinions in those
7 reports, is it necessary for you to have a good
8 working knowledge of *Thornburg v. Gingles*?
9 A Well, not in terms of the legal conclusions
10 because the questions that I addressed are more
11 empirical questions.
12 Q So you wouldn't necessarily hold yourself out as
13 an expert on how *Thornburg v. Gingles* might
14 interpret in any given legislative district map?
15 A Well, I believe I could describe the outlines, but
16 typically in a landmark supreme court decision
17 there are many, many elements. I believe I'm
18 conversant in the major ones involving the
19 conditions in which analysis is required to
20 support a claim under that part, under Section 2.
21 Q Fair enough. I would like to go through the
22 prongs. To the extent that you're conversant with
23 them, then perhaps you can provide some answers.
24 If you don't feel like you're sufficiently
25 conversant to answer my questions, let me know.

1 That will be fine. Let's look at the first prong.
2 You mentioned that that involves showing that
3 there's a sufficiently large minority population;
4 that they be I believe large enough to form a
5 majority in a single seat district?
6 A That's a common way of envisioning it.
7 Q Is there a different way of envisioning it?
8 A Well, as I think about it, I believe it requires
9 being able to draw a district that has a majority
10 of the minority population.
11 Q Have you ever heard of the *Thornburg v. Gingles*
12 prongs being referred to as a threshold test?
13 A Yes.
14 Q What's your understanding of what that means?
15 A My understanding of that is that that's a
16 condition that you must meet in order to proceed
17 but that it doesn't end the analysis.
18 Q So just because you meet those three prongs of
19 *Gingles* doesn't mean that you have proven a case
20 of voter discrimination under the Voting Rights
21 Act?
22 A That requires a legal conclusion that I don't
23 think I'm prepared to make.
24 Q That's fair. The *Gingles* factors, those come into
25 play in the context of someone challenging a

1 district map that currently exists, yes? Let me
2 just see if I can clarify the distinction I want
3 to make. I'll tell you how I look at this, and
4 then you can tell me if I'm on the right track or
5 wrong track.
6 A Okay.
7 Q On the one hand you have circumstance where a
8 legislature or court needs to draw a district map
9 so they're looking prospectively at what needs to
10 be done and they know they need to comply with the
11 Voting Rights Act when they do that. On the other
12 hand is someone looking back retrospectively at
13 the map that's been drawn and saying that does not
14 comply with the Voting Rights Act. Do the *Gingles*
15 factors -- do those generally come into play when
16 you're looking back at a map that's been drawn and
17 you're trying to show that map does not comply
18 with the Voting Rights Act?
19 A Again, that calls for a legal conclusion. I would
20 simply say that I believe in both instances -- in
21 the case of the map drawers, that careful map
22 drawers would be cognizant of that as they drew
23 the map and would make an effort to comply with it
24 if they concluded that it was applicable.
25 Q Let's look at it from the context of someone

1 challenging a map for a moment. We're looking at
2 whether the first prong can be satisfied. Is it
3 enough to show that the population is large enough
4 to constitute a majority in a single seat district
5 or do you need to show that the population is
6 large enough that they can form a majority in more
7 single seat districts than the map actually
8 provides for?
9 A I would say it depends. It depends on the
10 concentrations that exist in those districts and
11 the size of the minority population. I don't
12 think I can give you an absolute rule about when
13 it applies and when it doesn't. Much will depend
14 on the context.
15 Q And what would the context be?
16 A It would depend on a judgment as to whether the
17 concentrations of minority voters were sufficient
18 to elect candidates of choice and whether they
19 could be reduced or it was necessary to increase
20 them. So you couldn't necessarily say that this
21 map creates X number of majority-minority
22 districts and that's sufficient. If it were
23 possible to create more, that could be one part of
24 a claim. But, again, it depends on the size of
25 the minority concentrate population, the degree to

1 which it is compact and geographically
2 concentrated and the concentrations of that
3 population in the districts that were drawn.
4 Q Fair enough. Let's use a very simple example just
5 for purposes of illustration. Let's say there's a
6 map that creates a single African American
7 majority-minority district and some people come
8 along and said Wait a minute. That doesn't comply
9 with the Voting Rights Act because there are a
10 sufficient number of minorities in that area, in a
11 compact area and contiguous area, that you could
12 create two African American majority-minority
13 districts. Is it necessary for them to show that
14 there would be enough to create that second
15 African American majority-minority district to
16 satisfy the first prong of *Gingles*?
17 A Well, again, with the qualifier that it depends on
18 the context, but that could well be -- I think
19 that would be part of the claim.
20 Q If they challenged that map that contained only
21 one African American majority-minority district
22 but they couldn't show that there were enough
23 members of that minority community to create a
24 second, would they have satisfied the first prong
25 of *Gingles*?

1 A Well, there are actually a couple of issues going
2 on here. As I understand it, packing does not
3 necessarily have to be a voting rights claim. I
4 do understand that there is not a constitutional
5 or legal requirement to create an influence
6 district if you can't create an additional
7 majority-minority district, but that at the same
8 time that doesn't necessarily mean that the
9 district -- if you had one district with
10 100 percent minority population or say 80 percent
11 and you took 35 percent of that or 25 percent of
12 that population and stuck it into another
13 district, that wouldn't be a majority-minority
14 district. But as I understand it, the claim of
15 packing can be distinct from the voting rights
16 claim; that even though you don't have enough
17 minority voters to create a second
18 majority-minority district votes can still be
19 wasted.
20 Q Let me see if I captured correctly what you're
21 saying. So if there were not enough members of
22 the minority community to create an additional
23 majority-minority district, they would not be able
24 to make out a packing claim under the first prong
25 of *Gingles* although it might make out a claim

1 under some other standard?
2 A I believe that's correct.
3 Q What would that other standard be?
4 A Well, again, there are some legal principles
5 involved. It might be an equal protection claim
6 or some other legal requirement that isn't
7 necessarily a part of the Voting Rights Act. I'm
8 in territory that I think requires more specific
9 legal expertise than I have.
10 Q So in this case would it be accurate to say that
11 you will not be offering an opinion on whether the
12 new district map enacted as Act 43 violates a
13 standard other than the Voting Rights Act with
14 respect to majority-minority districts?
15 A I'm not sure I understand the question.
16 Q That's fair. Let me do it again. You mentioned
17 there may be another legal standard that might be
18 violated by packing minority voters into a
19 district but you're not exactly sure what that
20 might be, fair?
21 MR. EARLE: Object to the form of
22 the question.
23 A As I sit here I can't drudge it up, but, yes, I
24 believe that's true.
25 Q If you meet the standards of *Gingles*, packing

1 could be a claim under the VRA, the Voting Rights
2 Act?
3 A That's correct. Let me just add that --
4 Q Please.
5 A -- the juris prudence is continually changing and
6 there may be decisions that have come down in the
7 last several months that would alter that
8 conclusion that I am not aware of or haven't seen.
9 Q This is the season for new decisions on these
10 issues, isn't it? All right. So as far as we sit
11 here today, your opinions or your reports opine on
12 the question of minority representation issues as
13 it relates to the Voting Rights Act but not some
14 other legal standard of which you're currently
15 unaware?
16 MR. POLAND: I'm going to object to
17 the form of the question and foundation too.
18 A I'll give a qualified yes to that because I don't
19 know that I have all of the information necessary
20 to make that judgment.
21 Q What information would you need?
22 A I would have to see if there were any changes that
23 have occurred since the time I wrote my report.
24 Q So the state of your reports right now at least is
25 that you address minority voting issues only in

1 terms of the Voting Rights Act; is that correct?
2 A I believe that's correct.
3 Q Let's move on to the second prong of *Gingles*. Can
4 you tell me again what that is.
5 A I believe that is that the minority group must be
6 politically cohesive.
7 Q What does it mean to be politically cohesive?
8 A Generally as an empirical matter that's expressed
9 through studying the voting behavior of groups and
10 whether they tend to support -- whether they have
11 the same interest and tend to support the same
12 types of candidates.
13 Q How do we determine that as an empirical matter?
14 A Well, generally the second and third prongs are
15 analyzed in concert through looking at the degree
16 of racially polarized voting and the degree to
17 which members of a minority community show support
18 for candidates who are members of that minority
19 community and the degree to which white voters,
20 most typically, although there are other
21 conditions, tend to support white voters and tend
22 not to support candidates who are members of
23 minority groups.
24 Q You mentioned that the second and third prongs are
25 generally considered together in terms of racially

1 polarized voting.
2 A I'm speaking of the empirics of it. Yes. Just in
3 terms of how you -- as a matter of analyzing the
4 votes to provide evidence. That's correct.
5 Q Would it be accurate to say that when you're doing
6 this analysis of the second and third prongs that,
7 you're looking at the voting behavior of two
8 different groups, the minority group and the
9 non-minority group?
10 A Typically that's correct.
11 Q What are we looking for in terms of the voting
12 behavior of the minority group?
13 A The degree to which they -- well, there are a
14 number of issues that go into a determination of
15 political cohesion not all of which can be
16 expressed in terms of data. Some of it has to do
17 with views of people who are experienced in terms
18 of the political attitudes and behaviors of that
19 particular community, and that complements any
20 analysis that is conducted of voting behavior.
21 The reason voting behavior is important is it's
22 something that is easy to observe and more or less
23 objective.
24 Q Let's start with the voting behavior. How do we
25 gather data on voting behavior to assess whether

1 the minority community votes in a racially
2 polarized way?
3 A Well, there are a variety of ways to do it. It is
4 not a straightforward methodological question
5 because while we can observe the voting behavior
6 of groups of people at the ward level or at the
7 reporting level, we can't observe the behavior of
8 individual voters because we don't have the
9 ability to look at ballots and know the ethnicity
10 of the person who cast the ballot. This is a
11 problem that's known as ecological inference or
12 the ecological inference problem. It's one that's
13 been known for many decades, and there have been a
14 number of efforts to come up with a satisfactory
15 solution to the problems that are posed whenever
16 you are trying to make inferences about individual
17 behavior or groups of individuals when all that
18 you have to look at are aggregate data. The
19 methods that the court accepted in *Gingles* were
20 something known as -- there were three methods
21 that they looked at. One is something called
22 double regression or variously called Goodman
23 regression which is a way of conducting a series
24 of regression models that estimate the behavior of
25 minority and white voters. Another is known as

1 homogeneous precinct analysis. So if I have a
2 ward, a reporting unit, that consists of
3 100 percent of white or minority voters, I know
4 with certainty that everyone who voted in those
5 districts was white and so we can make very clear
6 inferences about the composition or the
7 characteristics of the people who cast ballots.
8 Then the third is known as the method of
9 bounds. We don't have particularly in areas --
10 well, in Milwaukee there are not that many areas
11 that have 100 percent white or 100 percent
12 minority. There are some in the African American
13 community that the populations are very high,
14 concentrations are very high, and then you use a
15 method known as the method of bounds which is a
16 way of establishing upper and lower limits on what
17 the possible range of values can be. For a long
18 time that was the only way of making that
19 determination.
20 All of those methods have well-known flaws.
21 They often produce estimates that make no sense
22 and both statisticians and political scientists
23 have been looking for ways to improve upon that.
24 Q Have they found any ways of improving on that?
25 A Right now what is generally considered in

1 political science to be the best method in the
2 sense that it's superior to the methods that had
3 been in existence up to that point is a method
4 developed by a Harvard political scientist named
5 Gary King which is a combination of a
6 generalization of the method of bounds looking at
7 data in a large number of precincts and also
8 applying different probability distributions that
9 estimate the likelihood that certain votes or
10 certain concentrations of votes will produce the
11 data that's observed. That's what I used.
12 Q Let's then back up just a half-step then and talk
13 a little bit more about the method of bounds. How
14 does that differ from the homogeneous precinct
15 analysis?
16 A Well, they are often done together. The
17 homogeneous precinct analysis typically requires
18 you to have a sufficient number of precincts that
19 are above 90 percent. That's kind of the rule of
20 thumb because as you approach minority or white
21 concentrations that get close to 1 or 0, the
22 precision of your estimates get better and a
23 bound -- if you look at a district or a ward that
24 is 50 percent white and 50 percent minority, the
25 method of bounds will be usually anywhere from 0

1 to 1 which is not useful because it means that
2 just about any possible combination of votes can
3 produce the outcomes that you observe. As you get
4 closer to 0 or 1, those bounds get smaller.
5 Homogeneous precincts requires you to have
6 precincts that are homogeneous or wards that are
7 homogeneous, and that is useful because it tends
8 to produce relatively small differences between
9 the upper and lower bounds. But the method of
10 bounds can be used in precincts that are not
11 homogeneous with the understanding that the size,
12 the range of the upper and lower limits is going
13 to be larger.
14 Q So walk me through how you would do a method of
15 bounds analysis. Do you do this on a ward level?
16 Do you do it on a city, county level?
17 A Typically it's done at the ward level.
18 Q So you find wards and you figure out its
19 demographics, what the percentage of minority
20 versus majority population is?
21 A That's correct. Typically it's done in terms of
22 the voting age population.
23 Q How many wards do you need to get information from
24 before you can have the ability to have a
25 calculation in which you can have a high degree of

1 confidence?
2 A Well, one of the problems with the method of
3 bounds is that I'm not aware of a method that
4 allows you to calculate confidence intervals. And
5 the number of wards -- the general practice would
6 be is that you would look at as many wards as you
7 could. I'm not aware that there's -- certainly
8 looking at just a single ward wouldn't necessarily
9 give you a great deal of information, but it
10 depends on the -- it would depend on the number of
11 wards that exist in a larger jurisdiction that
12 you're looking at and the relationship between the
13 wards and the concentration of minority voters.
14 Q How do you select the wards to look at?
15 A There are a number of different ways to do it. In
16 the case of the analysis that I did, I looked at a
17 number of different -- actually, let me back up a
18 little bit. What drives the decision is not
19 necessarily the number of wards that you need, but
20 what drives it is the races that you're looking
21 at. Not every race is appropriate for racially
22 polarized voting. You need to have a race in
23 which at least one non-minority candidate is
24 running against at least one minority candidate
25 because otherwise if all of the candidates are

1 members of a minority or all of the candidates are
2 white, you can't get any data on the degree to
3 which race plays a role in how people vote. So if
4 you're looking at an aldermanic district, you
5 might have a handful of wards. If you're looking
6 at a citywide district in Milwaukee, you might
7 have several hundred wards. If you were looking
8 at a congressional district, you might have --
9 again, it depend on the state. You might have
10 many hundreds of wards or several thousands of
11 wards. So it depends on -- the unit of
12 measurement is the ward, but the unit of analysis
13 is the race that you're looking at.
14 Q Let's just talk about the map created by Act 43
15 for a moment. That creates the assembly and
16 senate districts for the state of Wisconsin. If
17 we're looking at whether let's say the Milwaukee
18 area districts comply with the Voting Rights Act,
19 which wards would we look at and for what race
20 would we look at?
21 A Well, there are a number of different ways to do
22 it. I observed a number of different races some
23 of which are focused on the particular areas where
24 there are high concentrations of African Americans
25 and Latino voters. But you can also get useful

1 information by looking at a somewhat broader
2 spectrum of areas. You can get useful information
3 in a variety of different contexts, particularly
4 in a city like Milwaukee in which most of the
5 minority voters in the city, both African American
6 and Latino, tend to be concentrated in
7 relatively -- what's the word? Identifiable
8 areas. It's not as if African Americans and
9 Latinos are distributed uniformly across the city.
10 The African Americans tend to live, most of
11 them -- actually, it's not a tendency. We can
12 identify that most of the African American
13 population of Milwaukee lives in an identifiable
14 area and most of the Latino population lives in a
15 particular identifiable area. Not all of them.
16 But when you do a citywide analysis, you are still
17 investigating the voting behavior of most of the
18 Latinos or African Americans that are living in
19 those areas that would be covered by districts,
20 assembly districts, that were drawn in those
21 areas.
22 Q Is it better to look at races that are run in the
23 specifically affected areas where there's a claim
24 that there is a violation of the Voting Rights
25 Act?

1 A Again, it's possible, but given the concentration
2 of voters, of minority voters, as they're
3 distributed in Milwaukee, even a citywide or even
4 a countywide analysis would be most heavily
5 influenced by the behavior of voters that are in
6 those particular areas, minority voters in
7 particular, because that's -- of the 71,000 voting
8 age Latinos, a very large percentage of them live
9 in that particular area that is south of I94, and
10 most of them live, as I noted in my report, in
11 contiguous census blocks. It doesn't mean that
12 there aren't Latino voters elsewhere, but most of
13 them are in those areas.
14 Q The quality of data that you get from a particular
15 race, does that deteriorate as the population
16 you're analyzing gets further away from the
17 affected areas?
18 A It can. But, again, I'm confident that even in
19 the countywide race that for minority voters that
20 there will be no significant deterioration in the
21 quality of the inferences that you can make simply
22 because you're not adding a large number of
23 minority voters to the population that you're
24 investigating.
25 Q Is that what gives you the confidence, that factor

1 that you just mentioned?
2 A Well, confidence in the inferences that I have
3 made with regard to the voting behavior of
4 minority populations.
5 Q When you select a race to analyze to look for
6 evidence of polarized voting when you're doing the
7 method of bounds approach, do you include all of
8 the wards? Do you look at some of the wards and
9 say this one is not going to provide especially
10 useful information to me so we're going to set it
11 aside and not analyze it?
12 A Well, I can't answer that question because I
13 didn't use that method.
14 Q Okay. You used, I think you said, the King
15 method?
16 A Right. That uses all of the wards. It makes no
17 distinctions. I didn't look at the wards and say
18 I'm going to use this one but not that one because
19 it doesn't look like I'm going to get good
20 results. You use all of them, and what comes out
21 of that is an estimate of the percentage of
22 minorities and whites that voted for minority and
23 white candidates. And then probably one of the
24 most -- the two most important advantages or two
25 most important qualities of the EI method as it's

1 known is it will always produce estimates of
2 percentages that are between 0 and 1 whereas the
3 method of bounds or in particular Goodman
4 regression or double regression will frequently
5 produce estimates that show that over 100 percent
6 of the voters voted for white candidates and a
7 negative number of minority voters. That can't
8 happen in EI because the mathematical properties
9 of the distributions that are used to estimate the
10 data are constrained to be between 0 and 1. But
11 the other quality is that the EI method produces
12 standard errors which you can use to investigate
13 the precision of those estimates. And to the
14 degree that the method of bounds or the use of
15 bounds are going to produce less precise
16 estimates, that will simply mean that the standard
17 errors of the final results will be greater.
18 There's much more to EI than just looking at the
19 method of bounds in every district and deriving
20 the estimate solely from that.
21 Q I might have gotten this wrong. I think you
22 described the ecological inference method as being
23 a combination of method of bounds and doing the
24 probability distribution. Does that get it right?
25 A Well, that's not quite right. It's more properly

1 described as a generalization of the method of
2 bounds and using that data in a way that's not
3 typically done with the method of bounds and is
4 able to extract more useful information than
5 simply looking at the method of bounds because
6 what the -- and then overlaying on that a
7 distribution that fits with the data that's
8 observed whereas the method of bounds you simply
9 look at the number of votes that are cast for each
10 candidate, you estimate the number of voters from
11 each my minority group which you can't directly
12 observe and you try to fill in the internal cells
13 on that table. The method of bounds simply gives
14 you a range of what those values can be, and
15 that's where that method stops.
16 Q And that's where ecological inference picks up?
17 A That's a qualitative way of describing it that's
18 not completely correct. The EI model goes well
19 beyond simply looking at the numbers precinct by
20 precinct. It would be difficult to describe in
21 words, but I would say that the sources I provided
22 in the software will give you a better indication
23 of precisely how it works.
24 Q So at that point ecological inference becomes
25 really much more a question of math?

1 A It becomes not simply math but a question of
2 trying to extract as much information as possible,
3 which the other methods miss, and using methods
4 that ensure that the results are meaningful in the
5 sense that they don't produce estimates that can't
6 be empirically true.
7 Q Let's look at it this way: Once you have selected
8 the races to analyze in performing the ecological
9 inference analysis, are there any other subjective
10 decisions that are made to complete that analysis
11 or is it simply a matter of applying an objective
12 process to that data?
13 MR. POLAND: I'm just going to
14 object to the form of the question.
15 A Well, there are certain decisions in terms of
16 different variants of or different methodological
17 decisions that can be made.
18 Q What would those be?
19 A There are some variants of EI that allow you to
20 utilize non-election data or other co-variate of
21 voting behavior. There are different variants
22 of the -- the basic model applies to a two-by-two
23 table in which you have minority voters and white
24 voters and one minority candidate and one
25 non-minority candidate. There are also extensions

1 that allow you to apply the model to larger tables
2 because usually you don't simply have white voters
3 and black voters or Latino voters. You also have
4 non-voters. Sometimes you have two white
5 candidates and two Latino or African American
6 candidates, and there is an extension, which is
7 what I used, that allows you to analyze somewhat
8 larger tables. That uses a slightly different --
9 in the two-by-two table the probability
10 distribution that you use to generate the
11 estimates is a bivariate normal, which is -- if
12 you think of a bivariate curve as a bell-shaped
13 curve, the bivariate normal would be that bell
14 curve rotated in three dimension so it looks like
15 a bell. The generalized method uses a different
16 distribution called the Dirichlet distribution
17 which is enormously complicated. The advantage it
18 has is that all of the parameters of that
19 distribution are between 0 and 1 which fits with
20 the need to have all of your estimates be between
21 0 and 1 because we're estimating the percentage of
22 voters that vote for a candidate which can't be
23 less than 0 or more than 100 or 1.
24 Q What did you call that variant?
25 A Generally that's called the -- in the literature

1 it's known as -- the base method of EI applies to
2 two-by-two tables. The variant is something
3 that's usually known as the R-by-C with R as the
4 number of rows and C as the number of columns.
5 There is software part of the package that's made
6 available for EI, which is all open source, that
7 will generate those estimates.
8 Q It sounded like there was a name.
9 A The R-by-C method is different because it uses a
10 different probability distribution to generate
11 those estimates. There isn't a subjective
12 determination that if I look at a particular race
13 I'm going to use all of the information available
14 for that race and I'm not going to toss anything
15 out because I don't think that it's going to be
16 helpful. So if I'm looking at the -- say in
17 Milwaukee looking at the races in the 8th assembly
18 district. If they meet the pre-conditions, which
19 is one minority candidate and one white candidate,
20 I'll use it. If I'm looking at the 8th or 12th
21 aldermanic districts, which are in the same area,
22 they meet the criteria, I use them and I use all
23 of the available information. I don't arbitrarily
24 toss out or actually not even arbitrarily. I
25 don't toss out information unless it's unusable

1 which sometimes occurs.
2 Q Under what circumstances would the data be
3 unusable?
4 A If nobody voted in a precinct, if a ward -- if we
5 were not able to generate data in which we had
6 confidence that the census figures for the
7 population of that district were correct. But
8 those would be the only types of circumstances in
9 which that would occur.
10 Q If there is a race that has let's say one minority
11 candidate and more than one non-minority
12 candidate, how does that affect, if at all, this
13 analysis?
14 A You will still be able to generate -- the goal is
15 to generate an estimate of the percentage of
16 minorities and whites who vote for on the one hand
17 the minority candidate and on the other the white
18 candidate. In a case like that sometimes the
19 white candidates are collapsed into a single
20 category. Sometimes they're not. Sometimes you
21 produce both estimates. They typically won't
22 differ by much. The only time you would really
23 see that would be in a primary where you have
24 multiple candidates running. Most of the time by
25 the time you get to the general election you will

1 have only two candidates.
2 Q So the method that you employed did not -- let me
3 try that over. The method that you employed
4 considered all non-minority candidates as being
5 one for purposes of this analysis in any given
6 race?
7 A I'm just trying to think of the -- I believe I
8 collapsed them, but I'm not 100 percent sure. I
9 would have to go back and look at the original
10 data. Most of what we looked at or of what I
11 looked at were general election races where that
12 was not a problem although I think there were a
13 couple where there were multiple candidates. But,
14 again, the literature is pretty clear that that
15 usually doesn't make a significant difference
16 especially since I don't think we had any races
17 where we had multiple candidates in each category.
18 But, again, I have to go back and confirm that.
19 Q Could you tell me a little bit about the
20 literature that suggests that having multiple
21 non-minority candidates doesn't have an affect on
22 the racial polarization analysis. Let me just
23 tell you what my question is here. It kind of
24 bounced around in the back of my mind. It seems
25 to me that in any given election you're going to

1 have a certain number of people who vote but don't
2 really know a whole lot about the candidates and
3 there's going to be some measure of scattering
4 simply because they go in and they say this name
5 rings a bell and they vote for that person. If
6 there are more non-minority candidates -- if
7 there's more than one, wouldn't that raise the
8 possibility that the vote is not necessarily due
9 to a racial polarized influence but something
10 else?
11 A It's possible, but as I understand the -- again,
12 I'm not a lawyer. In terms of the understanding
13 that I have in how to implement that that it
14 doesn't matter what the other factors are; that
15 the main one is simply whether members of a
16 minority group vote for candidates of that --
17 again, you can analyze them in terms of I talked
18 about Gwen Moore running and she -- in one of her
19 races she ran against a white candidate and a
20 significant number of whites voted for her. She
21 was an incumbent. Milwaukee is a democratic city.
22 You can explain that. You still saw a
23 significantly larger percentage of African
24 American voters vote for her than white voters.
25 Q That's a good example. Let's just carry through

1 on that just on the methodological basis. So the
2 ecological inference method of determining whether
3 there is racially polarized voting does not
4 account for other potential influences on the vote
5 like partisan makeup of the electorate?
6 A That's correct.
7 Q Is there any way of backing that out of the
8 analysis?
9 MR. EARLE: I'm going to object to
10 the form of that question. Backing out?
11 MR. KELLY: Controlling for it.
12 Better?
13 MR. EARLE: Yes.
14 A There may be. I'm not aware of any. I would have
15 to say I'm not aware of any.
16 Q So when we look at the results of an ecological
17 inference analysis of racially polarized voting,
18 would it be fair to say that we can't tell how
19 much of that is attributable to the partisan
20 makeup of the electorate?
21 A That's possible. But my understanding of how the
22 supreme court looks at it, that doesn't matter.
23 It doesn't matter why -- the question is the
24 degree to which members of a minority community
25 will vote for the minority candidate and members

1 of the white voters will be unwilling to vote for
2 the minority candidate. It's true that there are
3 a lot of factors that go into that, but as far as
4 the finding of racially polarized voting, what
5 matters is the ultimate voting decision and the
6 degree to which that is associated with the racial
7 composition of voters and the racial
8 characteristics of the candidates.
9 Q So would it be fair to say that your understanding
10 of the supreme court cases is that it does not
11 matter whether the members of the electorate are
12 voting for a person because of their race or
13 because of their party affiliation in determining
14 whether there's racially polarized voting going
15 on?
16 MR. EARLE: Form objection.
17 MR. POLAND: Join.
18 A I believe that's true. It certainly was the case
19 in *Gingles*. There may have been other district or
20 appeals court decisions in which they did take
21 that into account, but --
22 Q Just out of curiosity, do you know if there is a
23 degree of correlation between minority status of a
24 voter and his party affiliation?
25 A Yes.

1 Q What is that correlation?
2 A Well, African American voters tend to be
3 overwhelmingly democratic. Latino voters tend to
4 be strongly somewhat less overwhelmingly
5 democratic. And that's consistent across the
6 country.
7 Q You mentioned earlier, and I think I got this
8 right, you mentioned earlier that as part of the
9 second prong of *Gingles* in addition to looking at
10 voting behavior you could also look to the views
11 of people who are experienced and the political
12 attitudes and behaviors of that community to
13 determine if there is racially polarized voting
14 that occurs.
15 A No. That would be one piece of evidence that you
16 could use to reach a conclusion about whether that
17 community was politically cohesive.
18 Q All right. And let's just follow up on that for a
19 moment. What types of people would we be looking
20 to to find out if that minority community is
21 cohesive?
22 A If I were to do it, I would look for people who
23 had deep roots and experience in the community,
24 people who had run for office in the community,
25 people who had been involved in different groups

1 in the community. Not everybody -- in the case of
2 the Latino areas, not everybody who is Latino is
3 going to know a lot about that community just
4 because they share the same ethnic
5 characteristics. But that would be one piece of
6 information that could be useful.
7 Q Did you do any research on those kinds of people
8 who would be able to provide that kind of insight
9 into the minority communities with respect to the
10 African American community?
11 A Did I do any of that research?
12 Q Yes.
13 A My analysis was restricted to the data, so, no, I
14 did not talk to people in the community as part of
15 my report.
16 Q And that is true both with respect to the African
17 American community and the Latino community, yes?
18 A I had somewhat more familiarity with the Latino
19 community based on earlier work that I had done in
20 the Milwaukee aldermanic. But, no, I did not
21 speak with anybody for the purposes of gathering
22 data in order to conduct my analysis.
23 Q Would it be accurate to say then that your --
24 well, let me back up. Did you conclude that the
25 African American community is politically

1 cohesive?
2 A Based on their voting behavior I did.
3 Q Did you conclude that the Latino community is
4 politically cohesive?
5 A Based on their voting behavior I did.
6 Q You mentioned work that you did with respect to
7 Milwaukee aldermanic districts. What was that
8 work?
9 A I consulted. There was no litigation, but I
10 consulted with Voces de la Frontera in attempting
11 to -- not attempting to. I did draw some notional
12 aldermanic districts that took into account growth
13 in the Latino population over the previous ten
14 years. Let me add to that that both of the
15 districts, the 8th and 12th, which comprise much
16 of the area in the 8th and 9th are both currently
17 represented by white males on the common council.
18 Q What did Voces ask you to do in your consultations
19 with them on the Milwaukee aldermanic districts?
20 A They asked me if it would be possible to draw
21 aldermanic districts, they had different
22 population requirements and different numbers,
23 that would create a district with a majority
24 population of Latinos. But that's not really
25 information that I used in the reports that I did

1 for this litigation.
2 Q That's fair. Were you able to draw any aldermanic
3 district maps that created majority Latino
4 populations?
5 A Yes.
6 Q How many?
7 A I believe one.
8 Q In drawing that map, were you looking at Latino
9 voting age population or Latino citizen voting age
10 population?
11 A At that point I don't believe I looked at citizen
12 voting age population. Let me correct that. I
13 did look at citizen voting age population, but the
14 analysis that I did was less formal than it was in
15 this case.
16 Q In which aldermanic district was it that you were
17 able to create a Latino majority?
18 A It's been a long time. I actually don't recall.
19 Q Do you happen to recall what the percentage of the
20 Latino voting age population was in that district
21 that you created?
22 A I'm afraid I don't.
23 Q Do you remember what the Latino citizen voting age
24 population was in that district you created?
25 A I do not.

1 Q Do you know if you had a goal in mind for what
2 percentage you thought would be necessary to have
3 either Latino voting age population or Latino
4 citizen voting age population?
5 A I believe -- I'm working on recollection because I
6 haven't looked at this in six months. I believe
7 my goal was to create a district with a majority
8 of the citizen voting age population.
9 Q Do you recall what your benchmark was for the
10 majority? Was it a bare majority? Was it
11 60 percent?
12 A I don't remember.
13 Q You mentioned that as part of that consultation
14 that you were looking at the growth of the Latino
15 population over the past ten years; is that
16 correct?
17 A No. I was simply looking at the census data from
18 2010. I knew that the population had grown, but
19 those growth patterns themselves were not
20 something that I took into account. I was working
21 simply with the 2010 census data.
22 Q And you knew the Latino population had grown by
23 comparison with the 2000 census data?
24 A That's correct.
25 Q Do you have any experience in projecting

1 demographic growth?
2 A Not specifically, but the tools are not that
3 complicated or magic. No, I did not do any of
4 those projections.
5 Q You didn't do any of those projections for the
6 work you did for Voces in the Milwaukee aldermanic
7 districts?
8 A That's correct.
9 Q Did you do any of those kinds of projections in
10 your work with respect to Act 43?
11 A I did not.
12 Q So would it be fair to say that in this case you
13 won't be offering any expert opinions on
14 projections in the growth of minority communities?
15 A Not entirely. I will be offering opinions about
16 my view of Dr. Morrison's work.
17 Q Let's move to the third prong of *Gingles*. And, as
18 I recall you saying, the second and third prongs
19 are generally considered together?
20 A As an empirical matter that's correct.
21 Q The second prong, though, is generally looking at
22 how the minority community votes and the third
23 prong looks at how the non-minority community
24 votes?
25 A That probably is applying too stark a distinction.

1 But the key in the third prong is an assessment of
2 whether minority voters have an equal opportunity
3 to elect candidates of choice, and that requires
4 looking both at voting behaviors of minorities and
5 the voting behavior of non-minorities.
6 Q Let's do this: Give me your best summary of what
7 you believe the third prong of *Gingles* to require.
8 A My understanding of the third prong is that given
9 a particular district composition that white
10 voters voting as a block will tend to vote in a
11 way that prevents a minority community from
12 electing a candidate of their choice which can
13 happen even in a majority-minority district if the
14 minority population is not sufficiently large.
15 Q How would that happen in a majority-minority
16 district?
17 A Well, it's well established that white voters are
18 more likely to register and more likely to turn
19 out, and that can overwhelm in the sense that it
20 can more than compensate for having a small
21 majority of minority voters. So typically a
22 majority-minority district requires more than just
23 a bare majority in order to be considered an
24 effective majority-minority district.
25 Q To meet the third prong of *Gingles* is it necessary

1 to demonstrate that historically the non-minority
2 electorate has been able to frustrate the minority
3 community's ability to elect a candidate of
4 choice?
5 A Not necessarily because it's possible under an
6 existing district configuration that minority
7 communities have been able to elect candidates of
8 choice but that they would have less of a chance
9 under a new configuration. So the fact that
10 District 8 has been represented by a Latino
11 assembly representative for the last I believe
12 eight years does not mean that if you change that
13 district, reduce the concentrations at areas that
14 are not part of the existing Latino community,
15 that you will continue to be able to do so.
16 Q We'll get to that a little bit more later. I'm
17 thinking more in the conceptual aspect of the
18 third prong of *Gingles* when it talks about the
19 voting behavior of the non-minority population
20 acting in such a way that it frustrates the
21 minority community's ability to elect a candidate
22 of choice. What I'm wondering is to satisfy that
23 prong do you need to show, actually make a
24 showing, that historically and empirically that
25 the non-minority community has in fact frustrated

1 the minority community's ability to elect a
2 candidate of choice?
3 MR. EARLE: Form objection.
4 A It depends on the context. In a given
5 jurisdiction or a community there are going to be
6 a number of different races. In the case of the
7 8th district it has been represented by a Latino
8 candidate, but there are other races in that area
9 in which you do see patterns of racially polarized
10 voting which have either resulted in the election
11 of white candidates or patterns that are
12 sufficiently large that they could result in that
13 pattern extending to the assembly races. So while
14 that would be one piece of the totality of
15 circumstances, I would not regard the fact that a
16 district had elected minority candidates as
17 evidence that they would continue to do so under
18 alternative configurations. In racially polarized
19 voting the analysis does not require that the
20 minority candidate lose. You can still get useful
21 information and estimates of the voting behavior
22 when minority candidates win. The key is to apply
23 that to alternative configurations where you may
24 be adding white voters to say a district or
25 reducing the concentration of minority voters.

1 I'm going to need to take a break in a little
2 bit if that's okay.
3 Q One more question here. I think a break would be
4 a good idea. When we're looking at -- we will get
5 into the 8th district in a little more detail
6 later. I'm glad you brought that up now because
7 it gives a good reference point for the question.
8 When we're looking at whether a district engages
9 in racially polarized voting and the race that
10 we're using to make that analysis extends beyond
11 that district, would it be more accurate or would
12 you get a more accurate picture of racially
13 polarized voting if you looked only at the wards
14 within that district?
15 A Probably. I've actually done that analysis. I
16 did it after I submitted my report, but it's in
17 the materials that I produced. If I recall
18 correctly, it shows a degree of racially polarized
19 voting that's at least as high as what you see in
20 the other races.
21 Q So that analysis is not in the reports but it's in
22 the materials that you have produced here today?
23 A That's correct.
24 MR. KELLY: All right. Let's take
25 a break.

1 (Recess)
2 Q Professor Mayer, thank you for the time you took
3 in walking me through the three prongs of *Gingles*.
4 I want to move on now. If I recall, we had
5 referred to those three prongs as a threshold; is
6 that right?
7 MR. POLAND: Object to the form of
8 the question.
9 A I believe that's correct.
10 Q So even though you can show all three prongs, that
11 in and of itself does not constitute a violation
12 of the Voting Rights Act. You need to take
13 another step.
14 A Well, I considered it a threshold as something
15 that you must meet in order to make a voting
16 rights claim. I don't know that I would agree
17 that you need to do other things once you have met
18 that. But I do think it's true that if you can't
19 meet those thresholds then there's an issue.
20 Q That's fair. One of the other things that you had
21 mentioned as being part of the Voting Rights Act
22 claim was this idea of the totality of the
23 circumstances. Do you recall that?
24 A Yes.
25 Q Can you tell me what that is.

1 A That was another part of the decision that --
2 Q I'm sorry to interrupt. The decision is the
3 *Gingles* decision?
4 A The *Gingles* decision that talks about other types
5 of evidence that would suggest that members of the
6 minority community face disadvantages in their
7 ability to participate. And as I understand it,
8 as someone who looks at this empirically, it's
9 another piece of evidence that is considered in
10 reaching a conclusion or finding that minority
11 populations or other protected classes under the
12 Voting Rights Act are denied an equal opportunity
13 to elect candidates of choice.
14 Q I understand that any time that a test is referred
15 to as the totality of the circumstances it's
16 subject to some degree of amorphism. Do you know
17 what kind of circumstances are considered in that
18 totality of the circumstances test?
19 A I don't know that I can give a comprehensive list,
20 but among the things that would be taken into
21 account are participation rates, whether a
22 minority group is disadvantaged in terms of
23 education, socioeconomic status, patterns of
24 discrimination. I'm sure there are others that
25 suppress or -- suppress is probably not the right

1 word -- that reduce their participation and their
2 ability to participate in the political process.
3 And, actually, let me add one more with respect to
4 the change in Wisconsin law, I think it's likely
5 that the voter ID laws will have an impact, a
6 particularly hard impact, on minority communities
7 in Milwaukee.
8 Q What is it that the totality of the circumstances
9 test is trying to discern?
10 A Again, my understanding is that it's one piece of
11 information that goes into the ultimate finding or
12 conclusion that minority populations or protected
13 classes are denied an equal opportunity to elect
14 candidates of choice.
15 Q Would it be fair to say that if that's what we are
16 trying to find out if it exists that we are
17 looking at state actions that would cause that to
18 occur?
19 A Not necessarily.
20 MR. EARLE: Form.
21 Q Why not?
22 A Because things like education and low income
23 wouldn't necessarily be the result of state
24 action. There may be state actions that could be
25 implicated in that finding, but, again, my

1 understanding is looking at this as a social
2 scientist not as a lawyer or a legal scholar. But
3 many of the factors are not due to any particular
4 state action. By state if you mean government --
5 Q Government.
6 A Right.
7 Q Thank you. State in political science terms.
8 A Understood.
9 Q If what we are trying to do is find out if there
10 has been a violation of the Voting Rights Act, how
11 would non-state actions play into that
12 determination?
13 A Well, the factors that go into things like turnout
14 and registration are fairly well understood.
15 Registration is a state action, but it is not so
16 in the sense that people who are poor who don't
17 have significant amount of formal education and so
18 forth are less likely to participate than people
19 with higher incomes and higher levels of
20 education. So that can play a role as well.
21 Q Let's say for the sake of our conversation this
22 afternoon or this morning yet -- let's say that it
23 is true that --
24 MR. EARLE: I'm going to
25 retroactively insert an objection on the

1 grounds that he's asking for a legal
2 conclusion as to the role of state action.
3 Go ahead.
4 MR. KELLY: Let's see if I can
5 remember where I was at.
6 MR. EARLE: I apologize.
7 MR. KELLY: Don't worry. That's
8 fine.
9 Q Let's say for the sake of our conversation this
10 morning that minority populations do register to
11 vote at a rate lower than non-minority
12 populations. Registration of course is something
13 that the state requires in order to vote; is that
14 correct?
15 A Correct.
16 Q The ability to register to vote is not impacted by
17 whether you're a minority or a member of a
18 non-minority population.
19 A Not directly.
20 Q Indirectly?
21 A Indirectly because there are certain factors that
22 make you less likely to register.
23 Q The factors that make you less likely to register,
24 are those things that the state has done?
25 A Some of them can be.

1 Q Like what?
2 A Well, for example, a requirement that you register
3 well in advance of an election places a burden on
4 people to pay attention and to take action long
5 before. It can be up to 30 days. The location
6 and the ease with which you can register and the
7 documents that you need in order to register. So
8 I draw a distinction between the specific steps,
9 legal steps, that you must take in order to
10 register which are primarily a function of some
11 type of state action and the factors that make
12 people more or less likely to get to the point
13 where they decide to take those steps. That can
14 be a function indirectly of the stringency of that
15 state action but it's more of a factor of the
16 socioeconomic characteristics and the engagement
17 that the people have with politics and government,
18 and that's less of an issue of direct or often
19 will not be a function of direct state action.
20 Q Did I hear you say that the more significant
21 issues that play into whether someone participates
22 in the electoral process are those that come from
23 socioeconomic situation rather than the process of
24 say registration?
25 A Well, in terms of the affect on the likelihood of

1 voting?
2 Q Uh-huh.
3 A I think that's true. There have actually been
4 studies that estimate the affect of what an
5 additional few years of education or being
6 older -- just to give you one example, people
7 between the ages of 18 and 24 are much less likely
8 to register and vote because they don't have much
9 experience, they haven't developed a habit of
10 voting, many of them are at college and they're
11 sort of geographically mobile and so the
12 turnout -- the likelihood that you register and
13 vote goes up as you get older. It also goes up as
14 your income increases. It goes up as you get more
15 education. Some of those -- if we're comparing
16 turnout among 18-year-olds and turnout among
17 60-year-olds, you're going to see very large
18 differences. Another factor behind that is that
19 it's well established that members of minority
20 groups are less likely to vote, register and vote,
21 than members of non-minority groups, and much of
22 that has to do with differences in income and
23 education and other factors. If you had two
24 comparable people of comparable education and
25 income and age and one was white and the other was

1 a member of a minority group, you wouldn't see a
2 large difference or perhaps not any significant
3 difference. But it's an empirical fact that
4 minority groups tend to be lower income with less
5 education than non-minorities.
6 Q And those socioeconomic factors, those are not
7 impressed by law?
8 MR. POLAND: Could you read back
9 the question?
10 (Question read)
11 A I think I understand.
12 MR. POLAND: I object to the form.
13 A I think I understand what you mean by impressed,
14 but I'm not sure.
15 Q Let me rephrase it then. Those socioeconomic
16 factors are not imposed by law?
17 A Generally no.
18 Q Is it important in looking at this totality of the
19 circumstances part of the Voting Rights Act
20 analysis -- is it important to look at those
21 factors that are imposed by law as opposed to
22 those that are not?
23 MR. EARLE: I'm going to object to
24 the form of the question to the extent you're
25 asking for a legal conclusion.

1 A I believe that both need to be taken into
2 consideration.
3 Q What significance on the question of
4 discrimination against minority voters do factors
5 have that are not imposed by law?
6 A Well, if you have historical patterns of
7 discrimination by private entities, that's one
8 factor. I'm trying to classify things as either
9 state action or not state action. Again, I think
10 I'm going to simply state that things that are not
11 directly caused by state action can be part of the
12 totality of circumstances test. Again, a lot of
13 that reflects the difference between a Section 5
14 claim, which is not an issue here, and a Section 2
15 claim.
16 Q And how would that differ between Section 5 and
17 Section 2?
18 A Section 5 applies specifically to changes in
19 voting practices and procedures which are by
20 definition matters of state action whereas
21 Section 2 is an equal opportunity to elect
22 candidates of choice which is a broader set of
23 considerations not all of which -- well, many of
24 which do not implicate state action.
25 Q Let's do this --

1 A Can I amend that answer?
2 Q Yes.
3 A Certainly the drawing of districts is a matter of
4 state action, so that could affect the ability.
5 The way the districts are drawn is not going to
6 have a significant affect or much affect on the
7 socioeconomic status of the people who live within
8 that district.
9 Q And drawing the district lines is not going to
10 make any given individual more or less likely to
11 register to vote.
12 A By itself no, but it would certainly change the
13 characteristics of the groups or the number of
14 people in the district who have registered to vote
15 and who vote. It would not consider the district
16 itself as an independent variable that will have a
17 strong affect on whether an individual decides to
18 register.
19 Q So regardless of where that district line is, the
20 individual could still decide to register or not
21 register. It's up to him.
22 A That's correct.
23 Q And he could still decide to vote or not to vote.
24 It's up to him.
25 A That's correct.

1 Q For purposes of the analysis that you did, let's
2 divide the state action from the non-state action.
3 Let's look at first the African American
4 community. I'm sorry. We should probably back up
5 one step. Did you do a totality of the
6 circumstances analysis with respect to the African
7 American community and the Latino community?
8 A I did with respect to the Latino community. I do
9 not recall doing a specific totality of
10 circumstances analysis other than to note the
11 lower likelihood of registering and voting.
12 Q For the African American community?
13 A Right. That was indirect. But I did do that
14 specific analysis for the Latino community.
15 Q Is there a reason that you didn't do a specific
16 analysis for the African American community?
17 A No.
18 Q Looking at the Latino community, let's distinguish
19 between state action versus non-state action in
20 the totality of the circumstances analysis. What
21 state actions did you consider with respect to the
22 Latino community in the totality of circumstances
23 analysis?
24 MR. POLAND: I'm going to object to
25 the form of the question to the extent that

1 it calls for a legal conclusion about what is
2 or is not state action.
3 MR. EARLE: Join.
4 A I would say that the major part of that -- I
5 didn't conceive of my analysis as incorporating
6 that distinction, but sitting here now I would say
7 that -- again, we have to draw a distinction
8 between action that affects the propensity to vote
9 or the likelihood of voting and state action that
10 has the affect or can have the affect of denying
11 an equal opportunity. Those are two different
12 things. I would say that in terms of the ability
13 to cast a ballot formally, things like voter ID is
14 likely to have an affect because there's
15 substantial evidence that members of minority
16 groups are less likely to possess the
17 identification necessary to vote and less likely
18 to be able to get access to the documentation
19 necessary to obtain that identification. And as
20 far as the equal opportunity which is the more
21 collective aspects of drawing a district that does
22 not have sufficient concentration of eligible
23 minority voters would constitute a form of state
24 action that could implicate voting rights.
25 Q Let's pick up on the last one first. Drawing a

1 district that has an insufficient population of
2 minority voters. That's not going to affect their
3 ability to cast a vote, right? It my affect their
4 ability to elect a candidate of choice, but they
5 can still vote.
6 A Right. That's correct, but I don't think that's
7 the question at issue.
8 Q What is the question at issue?
9 A Whether they have an equal opportunity to elect
10 candidates of choice.
11 Q Let me make sure. I heard you make two
12 distinctions, and I might have gotten them wrong,
13 with respect to state action factors. You
14 mentioned those that affect the propensity to vote
15 versus those that deny the equal opportunity to
16 vote; is that correct?
17 A That's correct.
18 Q And voter ID, which one did you put that one in?
19 A I would characterize that in the second category,
20 the state action category.
21 Q The state action category that speaks in terms of
22 denying the equal opportunity to vote?
23 A Well, in the specific case of voter ID that's one
24 conclusion, yes, because my own analysis suggests
25 and research done by others suggests that it will

1 have a specific and larger impact on minority
2 voters.
3 Q Have you studied Wisconsin's voter ID law?
4 A Yes, I have.
5 Q What are the types of documents that someone needs
6 to have to get a photo ID sufficient to vote?
7 A I believe it is a birth certificate and a social
8 security card.
9 Q Are there any others that would suffice to get a
10 photo ID capable of allowing you to vote?
11 A I believe a baptismal certificate may suffice, but
12 I don't believe there is an exception that allows
13 for an affidavit from a third party.
14 Q Is it your understanding then that a birth
15 certificate, a social security card or baptismal
16 certificate are the only forms of documents that
17 will suffice to obtain a voter ID card that would
18 allow you to vote?
19 A If you had a driver's license from another state
20 or some other document that established your
21 identity but wouldn't suffice for ID for voting,
22 presumably that would work as well.
23 Q So if you had a driver's license from another
24 state, you could get something that would allow
25 you to vote in the state of Wisconsin?

1 A I believe that's correct.
2 Q The studies that you have considered in forming
3 your opinion on the affect that Wisconsin's voter
4 ID law might have, in the other states that had
5 those voter ID laws did they allow for all of
6 these types of documents to suffice to get an
7 identification card sufficient to vote?
8 MR. EARLE: Object to the form of
9 the question.
10 A I'm not completely and fully informed about the
11 specifics of all of the other states in terms of
12 how to obtain ID that allows you to vote. I do
13 know that Wisconsin's law is considered one of if
14 not the strictest in the country in terms of what
15 documents you must present at the poling place in
16 order to vote. I'm less sure about the
17 requirements to obtain an ID in other states that
18 have voter ID laws such as Indiana, Georgia or
19 that have strict voter ID laws, Idaho.
20 MR. KELLY: I think we need to
21 change the tape. Shall we go ahead and do
22 that?
23 (Recess)
24 Q Professor Mayer, before we went off the record for
25 the break we were talking about the affects that

1 Wisconsin's voter ID law might have on minority
2 turnout. Do you recall that?
3 A Yes.
4 Q You mentioned that this could have an affect
5 because members of minority groups are less likely
6 to have the documents necessary to get a photo ID;
7 is that right?
8 A Mostly because they are less likely to have one of
9 the forms of ID that are required to vote such as
10 driver's license, a state ID, a passport, military
11 ID, et cetera.
12 Q Why would minorities be less likely to have one of
13 those forms of identification?
14 A If you don't have a car, you don't need a driver's
15 license. If you are low income, you're less
16 likely to have a passport. Passports are
17 expensive and they're only necessary for
18 international travel. There have been a number of
19 studies both in Wisconsin and in other states,
20 particularly Indiana, that find a consistent
21 pattern of significant disparities in the
22 percentage of voting age whites that have the
23 necessary documents and the percentage of
24 minorities who have those documents. Let me be
25 clear in speaking of forms of identification it's

1 what's necessary in order to vote and the
2 foundational documents are those that are
3 necessary to obtain a form of identification
4 necessary in order to vote.
5 Q Just so I make sure I understand what you're
6 saying, are you saying that the studies show that
7 not only are minorities less likely to have the
8 specific forms of identification necessary to vote
9 and that they are less likely to have the
10 foundational documents necessary to get the voter
11 identification card?
12 A Well, let me see if I can be precise. I do
13 believe there is evidence that they are less
14 likely to have the foundational documents and will
15 have a tougher time obtaining them if they don't
16 have them. In terms of the disparities, I think
17 what I can say is that it is a disparity in
18 possession of the forms of ID necessary to vote.
19 Q Do any of the studies to which you have referred
20 establish that minorities are less likely to have
21 birth certificates, social security cards,
22 baptismal certificates or driver's licenses?
23 A Driver's licenses, yes. The others there may be.
24 Sitting here I can't state whether they also show
25 that.

1 Q There's nothing in the reports that you have
2 submitted in this case that suggests that
3 minorities are less likely to have a birth
4 certificates, social security cards or baptismal
5 certificates?
6 MR. EARLE: Object to the form of
7 the question.
8 MR. POLAND: Join.
9 A Can you state that again?
10 Q You have not opined in your reports on whether
11 minorities are less likely to have birth
12 certificates, social security cards or baptismal
13 certificates.
14 A You are correct that I have not submitted
15 anything. I don't want to say yes to a no
16 question or no to a yes question.
17 Q Thank you. Good clarification. And you don't
18 intend to offer any opinion at trial on whether
19 minorities are less likely to have birth
20 certificates, social security cards or baptismal
21 certificates?
22 A Well, that depends on what happens at trial. I
23 can't answer that question with certainty.
24 Q What would have to happen at trial for you to
25 offer an opinion on that issue?

1 A I believe my understanding is that my ability to
2 testify at trial would be on issues that -- that
3 it would have to be related to the reports or in
4 the rebuttal reports. There would have to be a
5 connection.
6 Q Have you seen any evidence in the state of
7 Wisconsin that minorities are less likely to have
8 birth certificates, social security cards or
9 baptismal certificates?
10 A Not at this point.
11 Q I think this is what you said earlier. Correct me
12 if I'm wrong. In Wisconsin under the voter ID law
13 you can obtain a photo ID if you have a birth
14 certificate, social security card or baptismal
15 certificate; is that correct?
16 A I believe so. I'm not sure precisely what
17 combination, but you need to have documents that
18 establish your identity and citizenship. I would
19 imagine that a passport and a certificate of
20 naturalization would -- a foreign passport and a
21 certificate of naturalization would also suffice.
22 Q Do you know if there's any cost to get that photo
23 ID in the state of Wisconsin?
24 A It is free although you have to ask for it. It's
25 not offered. My understanding is that the DOT

1 made a decision, policy decision, that they would
2 not tell people it was free but if you asked and
3 said that you didn't want to pay for it they would
4 give it to you.
5 Q Do you know if that policy still stands today?
6 A I don't.
7 Q In the studies to which you have referred
8 suggesting that minorities are disproportionally
9 affected by the requirement to have a photo ID to
10 vote, do you know if they were studying all
11 minority populations or citizen minority
12 populations?
13 A In the case of African Americans it's a
14 distinction that doesn't really matter. In the
15 case of Latino populations I would say that it
16 looks at the overall population, but I could be
17 incorrect about that.
18 Q So when these studies have looked at Latino
19 communities, you don't know whether they made a
20 distinction between citizens and non-citizens?
21 A That's correct. But if someone is here legally,
22 they can obtain a driver's license. In a sense
23 any disparity would be less than the overall --
24 you can have a driver's license even if you are
25 not eligible to vote.

1 Q Do you know if the studies have made a distinction
2 between the minority voting age population versus
3 those who are not of voting age?
4 A I believe they're restricted to voting age
5 population. In most states the age for obtaining
6 a driver's license is 16 but the voting age is 18
7 although I believe there are some states that have
8 a higher age requirement. I believe these studies
9 are limited to the voting age population.
10 Q Let's move away from *Gingles* for a little bit. I
11 believe you mentioned that in the state of
12 Wisconsin, at least for state assembly and senate
13 districts, there is a requirement that they be
14 compact?
15 A That's correct.
16 Q What is compactness?
17 A It is a measure, and there are a number of
18 different measures -- the best way to describe it
19 is it's a measure of the regularity of the shape.
20 A perfectly compact shape is something like a
21 perfect circle or a perfect square or a perfect
22 polygon. That describes an ideally compact shape.
23 Q What are the different measures of compactness?
24 A There are probably 20.
25 Q Let me just stop you there. Why so many?

1 A Because each of them measures different things.
2 Just to give you one example, one measure of
3 compactness is the ratio of the longest axis of a
4 district to the shortest axis of a district and
5 that tells you whether a district is elongated,
6 thin on one dimension and thick on the other.
7 There are other measures that compare the district
8 to a regular shape, typically a circle, that is
9 the smallest circle that can completely surround
10 the district or the area of the circle with the
11 same perimeter of a district. There are a number
12 of others that often have names associated with
13 them, Popper, Roeck and so forth, but they are all
14 designed to assess the degree to which the shape
15 of the district is regular.
16 Q In looking at the regularity of the shape, are
17 there different factors to the regularity that
18 different tests try to describe?
19 A In a sense, yes. So the X and Y measure, which is
20 not commonly used because it misses a lot -- some
21 of them depict the degree to which a district is
22 spread out. Some of them measure the relationship
23 between a district and an ideal shape. There are
24 different measures that attempt to capture
25 different aspects of shape.

1 Q You mentioned there may be as many as 20 different
2 types of measurements. Do they fall into
3 different kinds of categories according to what it
4 is they're trying to capture in their analysis
5 with respect to compactness?
6 A I believe they do.
7 Q What would those categories be?
8 A Well, categories would be comparison to a regular
9 shape, the relationship between the area of a
10 district and its perimeter and measures that
11 attempt to capture elongation. I don't think I
12 could give you a comprehensive list of all of the
13 different classifications.
14 Q Is it possible that there are as many different
15 classifications as there are tests?
16 A I don't think that's true because I think there
17 are a number of tests that share common features
18 and attempt to measure similar elements.
19 Q What are the most common categories of compaction
20 tests that are used?
21 A I think the ones that are most commonly used are a
22 test that's called a minimum circumscribing circle
23 which is you take a district that could be of any
24 shape and you draw the smallest perfect circle
25 around it that contains every part of the district

1 and you compute the area of the district and the
2 area of that circle and you take the ratio. So a
3 value closer to one would indicate a more compact
4 shape. Values closer to zero would be a less
5 compact shape. Another is called -- it's a
6 variant of a perimeter test which is you measure
7 the perimeter of a district and then you draw a
8 circle with the same perimeter and again you
9 calculate the area of the district and the area of
10 that circle and you take the ratio. Those are the
11 two that I use most often because I find them most
12 useful in both characterizing and conceiving of
13 the relationship between the district and a
14 regular shape.
15 Q So the ones you most commonly use are the minimum
16 circumscribing circle and then the variant of the
17 perimeter test that you just described?
18 A That's correct.
19 Q What other commonly used tests are out there?
20 A I don't know that I could name them. I listed
21 some in my report. Most of them are variants of
22 these kinds of things. Some of them use hexagons.
23 Some of them use different shapes as comparison.
24 But sitting here I'm not able to recall all of the
25 different measures.

1 Q What is the single best test to measure
2 compactness?
3 A I do not think there is consensus that there is a
4 single best way --
5 Q Why not?
6 A -- or a single best measure.
7 Q Why is that?
8 A Because the different measures of compactness
9 measure different things.
10 Q Did we go over the different things that they
11 measure?
12 A Yes.
13 Q So the things we have already talked about?
14 A Right.
15 Q Is it important to try to capture all of those
16 different things the different tests are trying to
17 measure?
18 MR. EARLE: Object to the form.
19 A Within reason I suppose, yes. I don't think it's
20 necessary to calculate every possible measure.
21 Q Is there a specific name for the second test that
22 you used, the variant of the perimeter test? Is
23 there a specific name for that? I just want to
24 know for ease of reference.
25 A I think it's either called the Roeck test,

1 R-o-e-c-k, or Popper.
2 Q For our purposes today, and I won't hold you to
3 this at trial or anything, but can we refer to it
4 as the Popper test?
5 A I think the Roeck test is probably better.
6 Q Roeck?
7 A Yes.
8 Q We'll do Roeck. So we have the minimum
9 circumscribing circle and the Roeck test. How
10 many of the different things that the various
11 compactness measures try to capture do those two
12 tests capture?
13 A One of them captures the relationship between the
14 district and a regular circle shape.
15 Q That's the minimum circumscribing?
16 A Yes. And the other one, and, again, I'm not sure
17 it's called the Roeck test, captures the
18 relationship between the length of a perimeter of
19 the district and the degree to which it's a
20 regular shape.
21 Q Are you familiar with anything that captures
22 dispersion?
23 A Yes.
24 Q What would that be?
25 A I believe that would be a perimeter to area test.

1 That a district with a very large perimeter but a
2 very small area would be a district that was
3 spread out in terms of having parts of the
4 district that are far away. There are also more
5 complicated measures that try to estimate what you
6 might call the central moment or the geographic
7 center of a district and the distance between that
8 center and the most distance part.
9 Q Do either the minimum circumscribing circle or the
10 Roeck test capture dispersion?
11 A They can. A district that's more dispersed will
12 require a larger circle to encompass it and will
13 also constitute a smaller fraction of the area of
14 that circle.
15 Q To the best of your knowledge what is an
16 acceptable range of compactness?
17 A There's no particular threshold.
18 Q So how does one determine if a district is too
19 compact or compact enough?
20 A Well, I don't know that there would be any such
21 thing as a district that was too compact.
22 Q After I said that I kind of -- yes. Let's try
23 that one again.
24 A Okay.
25 Q How would one determine if a district is

1 insufficiently compact as opposed to permissibly
2 compact?
3 A It's a subjective determination because although
4 the term compactness is used in statutes and
5 constitutions, I'm not aware of any legal
6 requirement that it meet a particular threshold.
7 In a series of supreme court decisions in the '90s
8 and 2000s about dealing with racial
9 majority-minority districts in congress, in
10 several cases the supreme court overturned
11 districts because in the view of Sandra Day
12 O'Connor or another justice they were simply
13 bizarrely shaped. There were a number of
14 districts that you look at them and they are well
15 known in the redistricting community as
16 constituting districts that were overturned.
17 Again, it's subjective determination.
18 Q Who gets to make the subjective determination of
19 whether a district is sufficiently compact?
20 MR. POLAND: Object to the form of
21 the question.
22 MR. EARLE: Join.
23 A Well, there are a number of elements to that
24 question. Initially the person who decides
25 whether a district is compact is the person or

1 persons who drew the map. And then ultimately I
2 suppose it could be up to a judge to determine
3 whether a district was sufficiently non-compact
4 that it failed to meet the legal requirement.
5 Q And legal requirement being what exactly?
6 A That it be compact.
7 Q But without being able to point to any particular
8 measurement describing what would be sufficiently
9 compact?
10 A I don't believe that there's any bright line
11 standard or threshold.
12 Q Do you know whether courts defer to legislatures
13 more with respect to what they consider to be
14 sufficiently compact versus when a court is in the
15 first instance drawing a district map?
16 A I have an idea, but I think that calls for a legal
17 conclusion that I'm not prepared to give.
18 Q So you would not say that that's in your area of
19 expertise?
20 MR. POLAND: Object to the form of
21 the question.
22 A Well, in terms of the specific differences between
23 the degree of deference that a court grants a
24 legislature and the different views a court might
25 take of compactness when it's reviewing a

1 legislative plan or whether it's drawing its own
2 plan? I would say that particular fine point is
3 not something that I'm an expert on.
4 Q When considering compactness, is it important to
5 look at the map as a whole as opposed to
6 individual districts?
7 A It depends.
8 Q What does it depend on?
9 A There may be -- looking at a map as a whole if you
10 looked at an average measure of compactness by
11 calculating the compactness measure for each
12 district and taking the average. That would give
13 you some idea. But, again, there would be -- you
14 would have to also look at particularly districts
15 because I think it would be certainly possible for
16 a map that had an overall compactness score of X
17 or Y to have a certain number of districts that
18 were so bizarrely shaped that they would be
19 considered insufficiently compact.
20 Q Do you know if the acceptability of a compactness
21 measure is influenced by any of the other
22 traditional redistricting principles?
23 A Yes.
24 Q What would that relationship be?
25 A Well, it would depend on natural boundaries. Any

1 district that you drew in Door County is going to
2 be non-compact because it's bounded by water and
3 it's a point that extends several hundred miles.
4 It depends on whether a district is bordered by
5 some body of water or some other irregular
6 boundary like a state boundary that might be a
7 straight line such as the border between Wisconsin
8 and Illinois. It would be somewhat harder when
9 you're looking at districts that border Minnesota
10 or the Upper Peninsula. Of course it would vary
11 depending on how population is distributed. It
12 would depend on how local political subdivisions
13 are configured. There are a variety of things
14 that would need to be taken into account that
15 would have an affect on how compact a particular
16 district is.
17 Q So in doing the compactness analysis it's
18 important to account for all of those different
19 issues you just identified.
20 A The reason I'm hesitating is I want to make sure
21 that I accurately understand taking into account.
22 It would be --
23 Q Let me put it this way: In doing the most
24 accurate compactness analysis possible, is it
25 important to control for those issues that you

1 just described that could affect the compactness
2 of a district?
3 A It could be, yes.
4 Q Is that important in Wisconsin?
5 A It could be. It depends on what districts you're
6 looking at and what measures you're looking at.
7 Yes. I can see that it could be.
8 Q When you looked at the compactness of districts in
9 Wisconsin, did your analysis control for all of
10 those issues that you just mentioned?
11 A No.
12 MR. POLAND: Objection. Object to
13 the form.
14 THE WITNESS: I'm sorry.
15 A No.
16 Q Why not?
17 A I was interested in doing a comparison. I suppose
18 it was partially a matter of time and the
19 compactness measures of districts -- those reports
20 are fairly simple to generate. It would be a much
21 more labor intensive matter to identify and place
22 the districts into different categories depending
23 on some of those other factors.
24 Q Did you do any kind of a difference of means
25 calculation for compactness across the state of

1 Wisconsin?
2 A I did not.
3 Q Why not?
4 A Because one of the things that I looked at
5 was the -- the analysis that I did looked at the
6 most compact districts and the least compact
7 districts. The one variable I looked at was the
8 party of the incumbent who represented that
9 district after 2010. The analysis that I did
10 didn't require a difference of means test which
11 would be required if you were comparing say
12 overall means. Let me add to that that I know
13 Professor Gaddie did conduct that analysis, a
14 difference of means test, and it showed that there
15 was no statistically significant difference in
16 compactness between democrat and republican
17 districts in the senate. But I believe it did
18 show a statistically significant difference
19 between democratic and republican districts in the
20 assembly.
21 Q Do you know if he then performed any analysis that
22 controlled for those non-partisan type of issues
23 that could affect the compactness of a district?
24 A He did not. He performed a multiple regression
25 analysis that looked only at incumbency, but he

1 did not include any independent variables such as
2 bordering on water or anything else that in my
3 view a proper multiple regression analysis should
4 have included.
5 Q Do you know what his regression analysis was
6 trying to identify?
7 A I believe he was trying to identify whether there
8 was a difference between democratic incumbents and
9 republican incumbents to see whether districts
10 represented by republicans were more or less
11 compact than districts represented by democrats.
12 Q Did that analysis show that there was any
13 correlation between lack of compactness and
14 partisan affiliation of the incumbent?
15 A I would have to look at the report, but in my
16 view -- and, again, let me preface any criticism
17 of Professor Gaddie. I know you went through this
18 in his deposition. He's a friend of mine.
19 Q Yes.
20 A We get along very well. We have a rule that
21 nothing that happens in here is taken personally
22 by either of us.
23 Q And he has said the same of you.
24 A I don't think he did that analysis correctly and
25 so I don't think that even if it did show a

1 difference or that it didn't show a difference I
2 would not regard that as definitive.
3 Q What was wrong with that analysis?
4 A Too many excluded variables of the type that we
5 were talking about. There's a well-known problem
6 in regression that any omitted variables that are
7 going to be correlated in any meaningful sense
8 with the dependent variable will cause the
9 regression analysis, the coefficient estimates, to
10 be biased and incorrect.
11 Q Do you know what that analysis would have shown if
12 he had included those other independent variables?
13 A I do not.
14 MR. KELLY: Doug, it's noon.
15 MR. POLAND: Yes.
16 MR. KELLY: Do you think lunch is
17 here?
18 MR. POLAND: It was supposed to be
19 here sometime between 12:00 and 12:15, so it
20 may very well be.
21 (Recess)
22 Q Professor Mayer, this morning we were talking
23 about the Voting Rights Act and equal population
24 and a little bit about compactness all as they
25 relate to how one draws a map in terms of it's a

1 good map versus a not good map. I would like to
2 turn now for just a little while to what you
3 mentioned as the traditional redistricting
4 factors, and, recognizing that we have already
5 dealt with compactness, what are the traditional
6 redistricting factors of which you're aware?
7 A Well, again, this is not necessarily a
8 comprehensive list. I've got equal population,
9 contiguity, compactness, respect for local
10 political subdivisions, maintaining communities of
11 interest, adhering to other principles, key
12 principles of federal law. I would like to add
13 two others that I didn't mention this morning
14 which is preserving core district population so
15 that you don't shift populations unnecessarily,
16 and, in the case of a state like Wisconsin that
17 has staggered senate elections, to disenfranchise
18 a minimum number of voters who in Wisconsin when
19 they're moved from an even to an odd senate
20 district they lose their -- they wind up not being
21 able to vote in the 2012 elections.
22 Q Just one last point on compactness. We were
23 discussing that in terms of the state legislative
24 districts, the assembly and the senate districts,
25 and I think you noted that compactness is a

1 constitutional requirement for those districts; is
2 that right?
3 A I believe so.
4 Q That's not true of the congressional districts,
5 though; is that right?
6 A It's not a federal constitutional requirement.
7 Without look at the state constitution I can't say
8 definitively whether that's a state constitutional
9 requirement. I'm most familiar with the state
10 legislative.
11 Q Then when we're looking at congressional
12 districts, would it be fair to say that
13 compactness falls within that category of
14 non-constitutional traditional redistricting
15 factors?
16 A Again, without having the constitution in front of
17 me, I can't say definitively. But if it's not
18 there, it is still within the ambit of principles
19 that are normally taken into account when drawing
20 a map.
21 Q With respect to compactness in terms of
22 congressional districts, do you know if there are
23 any statutes that require that those districts be
24 compact?
25 A In the state of Wisconsin?

1 Q Well, anywhere in the country addressing
2 congressional districts.
3 A Well, I know there are statutes, federal statutes,
4 that require house districts to be single member
5 which has been around since I believe the middle
6 of the 19th century. It's possible because I know
7 that there are state laws that implicate the
8 drawing of congressional districts such as in Iowa
9 that they require congressional districts as much
10 as possible to be comprised of whole counties and
11 also prohibit map drawers from looking at
12 political data or incumbency residence. So I
13 would say it's entirely possible and in fact I
14 would say based on that that it's probable that
15 states have their own process for drawing
16 congressional districts because that like state
17 legislative districts is a process that is
18 typically performed by state legislatures or
19 bodies that the legislature designates as having
20 that authority. In California they did it by
21 referendum establishing an independent commission
22 and in Arizona too.
23 Q Let's step through this just a little bit more
24 slowly. Are you aware of any federal statutes
25 that require congressional districts to be exact?

1 A I'm not.
2 Q Are you aware of any Wisconsin statutes that
3 require congressional districts to be exact?
4 A Again, I would have to look at the constitution to
5 be certain.
6 Q So there may be. So what you're telling me is
7 that it's possible the constitution might have
8 something to say about the compactness of
9 congressional districts?
10 A Yes.
11 Q You would have to see the constitution?
12 A I know that there are principles that have guided
13 federal courts in determining whether a district
14 was insufficiently compact or bizarrely shaped. I
15 don't know whether that's a particular statute or
16 whether that is something that's derived from a
17 different constitutional claim.
18 Q But as you sit here today in putting to one side
19 for a moment what the Wisconsin constitution might
20 say about congressional districts, you're not
21 aware of any Wisconsin state statutes that require
22 that congressional districts be exact.
23 A Today I'm not aware of any, but I can't say that
24 there aren't.
25 Q That's fair. Let's talk about communities of

1 interest. Let's start here. What is community of
2 interest?
3 A A community of interest is a particular area or
4 population that shares some type of common
5 interest. There are a number of things. It could
6 be economic, cultural, environmental, political,
7 industrial. Just some common thread that links an
8 area as having some type of identifiable interest
9 or set of interests.
10 Q Is there a list of communities of interest that we
11 can find anywhere for the state of Wisconsin?
12 A I don't believe so.
13 Q How does a community of interest factor into
14 creating a legislative district map?
15 A Well, the idea is that districts are supposed to
16 maintain communities of interest and not
17 unnecessarily split them or arbitrarily split them
18 into different districts so that they have some
19 coherence to their relationship of that area of
20 that community of interest and their
21 representative.
22 Q So a bad map would split too many communities of
23 interest perhaps?
24 MR. EARLE: Form.
25 MR. POLAND: Join the objection.

1 A It's difficult to say because there are many
2 different ways to devise a map and other things
3 being equal -- most of the time it's difficult to
4 make other things being equal. A map that
5 maintains communities of interest would, other
6 things being equal, be preferable to a map that
7 does not.
8 Q When we assess a district map for how faithfully
9 it maintains communities of interest, what are the
10 steps that we go through in doing that?
11 A Well, the first step is to identify what you
12 consider to be communities of interest. There is
13 no bright line definition. It could be an area
14 that has interconnected economic relationships or
15 an area with a particular demographic
16 characteristic or an area that had been or cities
17 or areas that had been connected for a sufficient
18 time to forge a community of interest. You would
19 then look at the map and see what the map does to
20 what you have identified as communities of
21 interest.
22 Q When we assess whether a map faithfully adheres to
23 protecting communities of interest, is there any
24 way of determining how many communities of
25 interest that are not kept whole that creates a

1 problem?
2 MR. EARLE: Object to the form of
3 the question.
4 A So are you asking if there's a threshold, a
5 number, that you must stay beneath in order to
6 meet some criteria?
7 Q I think Peter is right. I object to the form of
8 the question too.
9 MR. EARLE: I welcome you joining
10 me.
11 MR. KELLY: I join.
12 Q Let's look at it this way: If a map does not
13 respect communities of interest, that is to say it
14 splits that community of interest; is that right?
15 A Yes.
16 Q How many split communities of interest would be
17 too many?
18 A Well, it's a contextual issue.
19 Q What's the context?
20 A Well, the context is -- let's take a city like
21 Marshfield which is a relatively small city but
22 has some identifiable economic and industrial
23 commonalities, and, as best as I can determine,
24 the city of Marshfield has been in the same
25 assembly district since at least the 1950s when

1 assembly districts were drawn largely on the basis
2 of county lines. As of 1959 the entire city laid
3 within Wood County, which was one assembly
4 district or might have been two assembly
5 districts, and this was before the reapportionment
6 decisions. So in that case I think you could make
7 an argument that the city of Marshfield and the
8 surrounding areas constituted a community of
9 interest and also a political subdivision that
10 under Act 43 was split and split in a rather
11 strange fashion where a portion of the
12 southeastern part of the city was carved out from
13 the suburbs all of the way to downtown.
14 You could also make a case that the central
15 part of Wisconsin, the area of Wausau and Stevens
16 Point and areas around there, have similar
17 economic and agricultural interests and that that
18 would be an area that you would want to pay
19 attention to and not unnecessarily split it. As I
20 said before, there's no bright line definition of
21 what constitutes a community of interest. It
22 could be port city and a surrounding area. It
23 could be a number of different things.
24 Q Is it possible for one geographic spot to be a
25 part of more than one community of interest?

1 A Yes.
2 Q And is it possible that those various communities
3 of interest of which that one geographic spot is a
4 part would not necessarily all have the same
5 boundaries?
6 A It is certainly possible, but generally a
7 community of interest may very well be the type of
8 designation or the type of concept that doesn't
9 have strictly defined boundaries.
10 Q That's fair. Is it possible that in maintaining
11 one community of interest in which a geographic
12 spot is a part it would necessarily split a
13 different community of interest of which it is a
14 part?
15 A Well, again, it depends on context. It depends on
16 how long those areas have been together and
17 considered a community of interest. I suppose you
18 could carve up a map any way you wanted and make a
19 claim that the way that you have done
20 it constitutes a community of interest by
21 identifying what you think are the common factors
22 that link together the areas as you have linked
23 them. So there's more to it than just deciding
24 that you have created a community of interest. I
25 would say it's a bit more nuanced and it depends

1 on factors that include the views of the people in
2 the community and how they see the representative
3 structure and the relationships that they have
4 built up.
5 Q That's a nice segue into my next question which is
6 who gets to decide what a community of interest
7 is, and, if there are competing claims to that
8 geographic spot by differing communities of
9 interest, who decides which is the more
10 significant and therefore more worthy of not being
11 split?
12 A Well, that's a difficult question to answer
13 because while it's true that different people,
14 different stakeholders, might have different views
15 of what a community of interest constitutes, I
16 think in many cases you would be able to assess
17 which of those claims was more persuasive. But it
18 would depend on an assessment of what people in
19 the community thought. There may be some clearly
20 identifiable economic or environmental interests
21 that you could identify.
22 Obviously the people in Act 43 who made those
23 decisions were the people who drew the map. They
24 were the ones who decided which communities of
25 interest and to what degree they would try to keep

1 them together, but that doesn't mean that those
2 were the right decisions and I identified some
3 areas in my report where I think my conclusion is
4 that they made poor decisions.
5 Q I like the way you put that. In your opinion they
6 made some poor decisions. Is that different from
7 making a wrong decision?
8 A It can be. If those decisions were not consistent
9 with traditional redistricting principles, you can
10 make a claim or make an argument as I did that
11 that conflicts with that and that that decision
12 should not have been made. So there's a poor
13 decision and a wrong decision. Those may be the
14 same thing.
15 Q Is there any distinction between a poor and a
16 wrong decision in deciding what communities of
17 interest ought to be preserved?
18 A Well, I guess I would need to know more precisely
19 what you meant by wrong decision.
20 Q Well, that's what I'm trying to figure out from
21 you. What I'm looking for is some kind of a
22 standard that we can say here are the types of
23 characteristics where a legislature, a court,
24 simply may not split a community of interest. It
25 would be a wrong decision to do that. Can we

1 identify a standard like that?
2 MR. POLAND: I'm going to object to
3 the form of the question.
4 MR. EARLE: Join.
5 MR. POLAND: If you understand, you
6 can go ahead and answer.
7 A It would depend on the degree to which that
8 decision was necessary in order to achieve another
9 goal such as equal population or respecting
10 municipal subdivisions.
11 Q Or any of the other traditional redistricting
12 principles?
13 A Correct. But those traditional redistricting
14 principles are not accorded equal weight. In the
15 case of Marshfield, my argument is that this a
16 community that has some identifiable industries,
17 healthcare, hospitals, some basic industry, and
18 that it had been kept in the same district for at
19 least 60 years and possibly -- I wasn't able to
20 find maps going back prior to 1950, but unless
21 there was some radical change in the way that
22 Wisconsin apportioned its assembly districts, it
23 may have been that way since the creation of the
24 state; that that's an important criteria to keep
25 in mind and that an area that had been kept

1 together for that long ought not to be split
2 unless there was a very good reason.
3 Q I want to explore one comment you just made that
4 not all traditional redistricting factors are
5 accorded the same weight. Did I get that right?
6 A That's correct.
7 Q Is there a recognized hierarchy of importance of
8 those redistricting factors?
9 A Not really. There's no consensus list that --
10 other than equal population being at the top and
11 that you can't say this one is number four and
12 that one is number six.
13 Q Okay.
14 A There's no such agreement at least in political
15 science that I'm aware of.
16 Q For the sake of this part of the conversation
17 let's take equal population and compliance with
18 Voting Rights Act and we will set those aside.
19 A Okay.
20 Q We will talk about all of the other traditional
21 redistricting factors. You mentioned that they
22 are not all accorded the same weight. How do we
23 decide what weight to accord to each one of them?
24 MR. POLAND: Object to the form of
25 the question.

1 A It's contextual and is based on -- when you begin
2 to draw a map, you make many, many decisions about
3 do you extend this district north? Do you extend
4 it west? Where do you start drawing the map?
5 There are all kinds of decisions that you make.
6 So in effect there are a very, very large number
7 of different permutations and combinations of
8 districts that you are able to draw. If you think
9 about the various criteria, you can't rank them in
10 an ordinal or in a cardinal rank that this is one,
11 two, three, but you can make some statements that
12 these are generally going to be more important
13 than others. What's written in the constitution,
14 the state constitution, for example. The factors
15 that you will place more weight on than others.
16 In terms of communities of interest,
17 generally the way that if I were drawing a map I
18 would make an effort to preserve those communities
19 of interest as I understood them and not
20 arbitrarily split places. And if I was in a
21 position where it turned out to be -- I felt it
22 was necessary to split that community or to split
23 a city in order to achieve some type of population
24 equality, I would probably back up and see if
25 there was another way to approach it in which I

1 could draw districts that didn't require me to do
2 that or that didn't result in my doing that.
3 Q When you say that the relative importance of the
4 redistricting factors is contextual, is that just
5 another way of saying that it's subjective?
6 A Not subjective so much but contextual meaning that
7 it depends on the circumstances and the specific
8 facts that you're dealing with.
9 Q Let's take this as an example. You mentioned that
10 some of this will be impacted by where you decide
11 on the map to start drawing the districts, right?
12 A That's correct.
13 Q So as you build those districts, that's going to
14 have a dynamic affect on the next district to be
15 drawn; is that fair?
16 A I don't know if dynamic is the word that I would
17 use.
18 Q What word would you use?
19 A I would say that the affect is cumulative; that if
20 you start drawing a map in this place you will
21 make certain decisions because you will stop and
22 conclude that you have achieved a proper
23 population or sufficient population that's within
24 your goals for achieving population equality and
25 then you start drawing the next districts and the

1 next district off of that and the decisions that
2 you make early in the process are going to affect
3 what happens throughout the process. So it's not
4 necessarily -- I guess dynamic is because I'm
5 thinking in terms of the descriptions of chaotic
6 systems in which small changes in the initial
7 conditions can produce major affects later on.
8 Q Is that the case here, small changes made in the
9 beginning can affect major changes later on?
10 A Well, certainly as a conceptual basis they can. I
11 don't know and it's not clear exactly what the
12 process that was used to draw the maps -- what
13 that process was and why certain decisions were
14 made. So I can't speak directly to what decisions
15 caused which effects. Some places I can. It's
16 very clear to me that at virtually every stage in
17 the process you have -- the decisions will branch.
18 You can decide to go off in one direction or go
19 off into another and maybe four or five different
20 decisions. And those decisions will have an
21 impact on what happens later on in the process.
22 Q This should be just a short diversion here. We
23 will get to your report shortly. In your report
24 you have opined on several of the traditional
25 redistricting factors for Act 43; is that correct?

1 A Some of them, yes.
2 Q Have you attempted to draw a map for the entire
3 state of Wisconsin that would respect all of the
4 traditional redistricting factors in the way that
5 you weighed them?
6 A I have not, but I'm quite confident it could be
7 done.
8 Q Will you be doing that before the trial?
9 A No. I don't believe so.
10 Q And then we will back up and we will get back on
11 the main track here I think. You mentioned that
12 you have a way of weighting the traditional
13 redistricting factors. Some are, generally
14 speaking, always going to be more important than
15 others; is that fair?
16 A Yes. I can give an example.
17 Q What I would like to have you do if you could is
18 setting aside equal population and the Voting
19 Rights Act compliance, putting those to the side
20 for a moment, tell me generally how you weight the
21 remaining traditional redistricting factors in
22 relation to one another.
23 A Well, contiguity would probably be next in the
24 sense that every part of the district has to be
25 connected to the rest of the district. There are

1 certain exceptions, municipal islands and literal
2 islands that are in water. So there are a variety
3 of circumstances in which that contiguity is not
4 applied literally. I think compactness is
5 important and although, as I noted earlier,
6 there's no particular threshold of you do the
7 minimum circumscribing circle and you decide that
8 a .61 average is not high you have and it needs to
9 be .7 but you can look at a map and determine or
10 form an impression about which districts seem to
11 be oddly shaped and the degree to which that's
12 necessary. If you have a city that is very close
13 to an ideal population and you make a decision
14 that that's going to be one assembly district,
15 well, you're going to follow those municipal
16 boundaries and that's going to drive the decision
17 about what the district looks like, compact or
18 not.
19 Q After contiguity and compactness what do you
20 figure is --
21 A I would say respect for political subdivisions and
22 not unnecessarily and arbitrarily splitting those
23 subdivisions whether they are counties or
24 municipalities, townships or whatever. Respecting
25 communities of interest to the degree that you

1 can. As you make those decisions, you need to be
2 cognizant and the relative importance that you
3 place would depend on how these decisions have an
4 impact on for example the number of people that
5 you move. So I would say preserving the core
6 district population is going to be in that mix as
7 well as well as the question of disfranchising as
8 few people as possible. That ultimate conclusion
9 might be complicated because you ultimately
10 wouldn't know how many people you have moved in
11 totality or how many people are disenfranchised
12 until you had completed the map drawing process.
13 But you can always go back and make revisions and
14 try again and in my experience that this is a
15 highly iterative process where you don't sit down
16 one afternoon and decide you're going to draw a
17 map and then 12 hours or three days later say here
18 it is. There's much more involved than that.
19 Can I add to my answer?
20 Q Please.
21 A Certainly the number of decision points is made
22 much, much larger when you are drawing the
23 districts based on census blocks in which there
24 are -- I don't know exactly how many there were in
25 the 2010 census, but it was on the order of half a

1 million as opposed to the traditional practice of
2 using wards that were drawn by local governments
3 of which there are, again, depending on how you
4 count, between 3,500 and 4,000 populated wards.
5 Q In judging a map based on the preservation of
6 communities of interest, are we concerned
7 primarily with the number of communities of
8 interest that get divided or are we identifying
9 specific communities of interest in saying that
10 one there, that should not be divided. What is
11 the measuring stick?
12 MR. EARLE: Form.
13 A I don't think you can give a bright line answer to
14 that question. Certainly you want to preserve
15 them to the extent that you can and so rather than
16 saying okay here is my standard, I'm going to draw
17 a map and I'm not going to split more than ten
18 communities of interest, it's more a question of
19 looking at a map and reaching a conclusion that
20 says that doesn't look right. That doesn't look
21 like a defensible decision because it seems to
22 split an identifiable community of interest in a
23 way that doesn't seem to be required by a
24 different principle. So I don't think that you
25 can look at a map and identify a minimum number

1 that gives you a safe harbor. It could be one,
2 and, if it was drawn in a way that wasn't
3 defensible, you might have to change that. You
4 wouldn't necessarily have to redraw the entire
5 map, but you would have to correct the
6 deficiencies that are found.
7 Q What would justify splitting a community of
8 interest?
9 A Well, in the case of a city if it was so large
10 that you could not contain it in a single assembly
11 or senate district, that would justify it. If
12 there was no other way to draw a district that
13 allowed you or that provided an opportunity to
14 meet one of the other redistricting criteria such
15 as contiguity or equal population. So there are
16 certain interests that could justify that, but it
17 would have to be based on some other principle
18 that you were trying to achieve when you do that.
19 Q Let's take a look at the question from a slightly
20 different perspective. Communities of interest
21 appear to carry a good deal of weight with you.
22 Would it be justified to privilege community of
23 interest over other traditional redistricting
24 factors such as, let's just pick one, core
25 preservation?

1 A Again, it's difficult to give an answer to that
2 because it depends on the context in the sense of
3 where you are. The issue of communities of
4 interest is not going to arise with uniformity
5 throughout a state. But if you were drawing a
6 district and you were -- you typically draw the
7 district by starting at one edge and working
8 across as opposed to drawing districts in
9 different spots and then trying to converge. I
10 would think that a good deal of the time those
11 things would go together, particularly in a case
12 where a district had been represented by one
13 district for a good period of time which is not
14 the only factor but one of the factors that you
15 look at in reaching a conclusion about whether a
16 particular area constitutes a community of
17 interest. The two don't necessarily conflict.
18 Q Let's say that the map drawer looks at a
19 particular area and says well, you know, the
20 current map splits this community of interest and
21 we're interested in preserving that community of
22 interest so what we're going to do is we are going
23 to -- in the map we're going to put those two
24 pieces of the community of interest back together
25 again. Would that be okay to do even though it

1 might adversely affect core preservation?
2 A Again, it depends entirely on the context. There
3 would be some circumstances in which that would be
4 a defensible decision. There would be other
5 contexts in which it would be less defensible. It
6 depends on a variety of factors that are external
7 to that particular decision, how that population
8 -- equal population, respect for political
9 subdivisions and so forth.
10 Q Let's say that they were able to respect equal
11 population, political subdivisions, comply with
12 the Voting Rights Act but the map drawer looked at
13 it and said I think it's more important to reunite
14 this community of interest rather than to preserve
15 the core of the old districts. Would that be a
16 legitimate choice to make?
17 A Well, again, I can't give a definitive answer. I
18 can easily envision circumstances where that would
19 be an appropriate decision.
20 Q Would that also be possible when it would
21 adversely affect the delayed voting metric?
22 A It's conceivable, but, again, it would depend on
23 the context.
24 Q Is there any way that you can identify all of the
25 factors that would tell me whether or not that

1 would be a justifiable decision?
2 A Well, I can tell you what the factors you should
3 consider would be, but without reference to a
4 specific example it would be difficult to reach a
5 firm conclusion about whether that decision seemed
6 to be justified.
7 Q Tell me all of the factors that we would need to
8 consider.
9 A Assuming that equal population has been taken care
10 of, the nature of the political subdivisions, the
11 nature of the community of interest. Trying to
12 keep track of this in my head is a little tricky.
13 Q If you would like some note paper if that would
14 help you --
15 THE WITNESS: Is that okay?
16 MR. POLAND: Yes. Absolutely.
17 THE WITNESS: Okay.
18 MR. EARLE: Write neatly. He will
19 probably mark it.
20 A I'm not putting these in any particular order.
21 MR. EARLE: I don't want you to
22 struggle later and not be able to read it.
23 MR. KELLY: Thank you. I
24 appreciate that consideration.
25 MR. EARLE: It's totally for your

1 convenience.
2 MR. KELLY: You're a good man,
3 Peter.
4 A Well, assuming that the final decision that you
5 reach is whether or not you were going to split a
6 community of interest, which could also be applied
7 to a decision about whether you're going to split
8 a municipality, I would look at the affect or the
9 relative balancing or what the affect would be on
10 other variables such as core district retention,
11 whether it had a significant impact on
12 disenfranchisement, whether it respected other
13 political subdivisions. Again, many of these
14 decisions are in fact subjective. There's no
15 checklist that you can go down and say you must
16 take care of this, this, this, this and in that
17 order. Again, at every point on a map you're
18 going to be faced with decisions about how you're
19 going to branch off and do other things. Again,
20 it's another way of saying that it's highly
21 contextual.
22 Q So the decision on how to privilege one of these
23 factors over another is going to vary from person
24 to person depending on who's drawing the map?
25 MR. EARLE: Form.

1 A Well, I wouldn't necessarily phrase it that way
2 because -- of course different people may have
3 different ideas about the appropriate decisions
4 and the appropriate weight, and, to the degree
5 that politics enters into that -- we haven't
6 talked about that, but that's clearly one of the
7 factors that enters into the minds of the people
8 drawing the maps. It wouldn't vary so much from
9 person to person. It would be a decision about --
10 privileging is one way of stating it, but I would
11 think about it in terms of which of these
12 principles do you think is most important at any
13 particular point on the map in which you have to
14 make the next decision about which direction or
15 which areas or what you need to do.
16 Q Let's say for sake of our conversation that you
17 and Professor Gaddie were in a room drawing a map.
18 You mentioned all of these decision branches that
19 occur in the process of drawing a map and at one
20 particular point Professor Gaddie says *You know*
21 *what. I think it would be good to reunite this*
22 *community of interest even though it's going to*
23 *have an adverse affect on core preservation and*
24 *delayed voting* and you said *No. I disagree. We*
25 *need to give more weight to core preservation and*

1 *delayed voting issues than reuniting a community*
2 *of interest*. Is there a way that we would be able
3 to tell if one of you was right and the other
4 wrong?
5 MR. POLAND: Object to the form of
6 the question.
7 MR. EARLE: Join.
8 A Well, in that situation, I don't think that would
9 be the end of the discussion. I think that would
10 be the beginning of a discussion of what the
11 community of interest is, the degree of the
12 impact. If we're talking about disenfranchising
13 15 more people as opposed to 15,000, that makes a
14 difference. So the way that I would attempt to
15 resolve that is try to be more specific about what
16 interests and principles are in play and what the
17 magnitude of the affects would be. Knowing in
18 this particular case that Keith and I get along
19 well, I suspect we would be able to reach some
20 consensus about what constituted a decision that
21 we regarded as defensible.
22 Q What if it was someone you didn't get along with
23 quite so well and you couldn't reach a consensus?
24 Would the two of you be looking at any objective
25 standards to help you determine which one of you

1 got that next decision branch correct and which
2 got it wrong?
3 A Possibly.
4 MR. POLAND: Object to the form of
5 the question.
6 MR. EARLE: Join.
7 A Possibly. If there were very large differences in
8 the impact the different decisions that -- the
9 impact that this decision would have on some of
10 these other interests, I think you could make an
11 objective determination that doing it this way is
12 going to disenfranchise 10,000 people and result
13 in a district that is obviously non-compact and
14 doing it this other way results in far fewer
15 disenfranchised people that you might be able to
16 make a determination that you would be able to
17 show to a third party and have them say I think
18 one decision is better than the other and one
19 decision is indefensible and the other decision
20 is.
21 Q Well, that kind of gets to the nub of the
22 question. When you have a disagreement like that,
23 is it because one person has made a better
24 prudential decision or is it because someone just
25 went off the rails and made a wrong decision?

1 MR. EARLE: I'm going to object to
2 the form of the question. I guess in
3 retrospect these are wildly incomplete
4 hypotheticals.
5 MR. KELLY: Of course they are.
6 MR. EARLE: So I will object on
7 that basis as well.
8 MR. POLAND: Object to the form.
9 A I would say it depends. I think knowing what I
10 know about redistricting I would be able to
11 distinguish the two. I would be able to
12 distinguish between a decision that I simply would
13 have made differently and one that just doesn't
14 look justifiable at all.
15 Q Let's go with the community of interest versus
16 delayed voting tension. At what point would you
17 be able to say it is wrong to reunify that
18 community of interest because there are too many
19 people who are going to have a delayed vote?
20 MR. POLAND: Object to the form.
21 MR. EARLE: Same.
22 A I don't know that I could identify a particular
23 threshold, but it would depend on the nature of
24 the community of interest. It would depend on the
25 nature of the historic connection. It would

1 depend on the number of people that were
2 disenfranchised. There may not be a huge
3 difference between 4,000 and 4,300, but there
4 would be a significant difference between 4,000
5 and 70,000.
6 Q You have mentioned contiguity a few times. Is
7 that an issue in Act 43 or Act 44 to your
8 knowledge?
9 A Not that I'm aware of. I know that there are
10 places in the map where, particularly in the area
11 around Madison, where the town of Madison and the
12 village of Shorewood have islands that are well
13 within the city of Madison. As far as I'm aware,
14 that fits within the legal exceptions to the
15 contiguity requirement.
16 Q Let's talk about core retention a little bit. Is
17 there any constitutional provision that requires a
18 legislature to consider core retention as it draws
19 a new district map?
20 A You know, this would be easier if I had a copy of
21 the constitution in front of me that I could refer
22 to.
23 Q To your knowledge.
24 A I can picture the section in my head.
25 MR. EARLE: Are you asking to be

1 able to refresh your recollection?
2 THE WITNESS: If I may.
3 MR. EARLE: We have a request that
4 he be able to.
5 MR. KELLY: Do you have a copy of
6 the constitution?
7 MR. EARLE: I don't. It was your
8 question, so I was wondering if you have a
9 copy.
10 Q I just wanted to know the state of your knowledge
11 at the moment. I don't mind if you want to take a
12 look, but that's not necessary.
13 MR. EARLE: Why don't we go off the
14 record.
15 (Recess)
16 Q Professor Mayer, you have in front of you a volume
17 of laws that includes among other things the
18 Wisconsin Constitution and the United States
19 Constitution. Before we went on the break I had
20 asked you if you knew if there is a constitutional
21 requirement either in the Wisconsin or federal
22 constitution for a legislature to account for core
23 retention as it builds a new legislative district
24 map. Do you recall that?
25 A Yes.

1 Q Were you able to find any constitutional provision
2 that requires that?
3 A Not in the text of the constitution, but it's
4 still, as far as the juris prudence that I'm
5 familiar with goes, it's one of the traditional
6 redistricting principles.
7 Q It's not something we specifically find in the
8 constitution. Is it something we specifically
9 find in any statutes?
10 A Not that I'm aware of. Again, I believe it's one
11 of the traditional principles that courts have
12 articulated as important to the representation
13 process.
14 Q Do you know if any of the courts that have
15 considered this issue have set a threshold that
16 required core retention percentage?
17 A Not that I'm aware of.
18 Q We have also talked about respecting municipal
19 boundaries as one of the redistricting principles
20 traditionally; is that right?
21 A Yes. That actually is -- in addition to being a
22 traditional principle, that is also in the
23 constitution.
24 Q What does the constitution say about that?
25 A Let me make sure. I believe this is the

1 constitution, Article IV. I believe it says
2 that -- it requires an effort to apportion the
3 legislature.
4 THE WITNESS: I just want to make
5 sure that this is not a statute. This is the
6 constitution?
7 MR. POLAND: That's the statute.
8 The constitution is at the beginning of the
9 volume.
10 THE WITNESS: The federal
11 constitution?
12 MR. POLAND: And then it go into
13 the state constitution.
14 A Okay. I wound up in the statutes. All right. So
15 the constitution does not make any reference to
16 respecting political subdivisions. It refers only
17 to equal population, compactness and contiguity.
18 Q But you were referring to a statute that had
19 something to say about respecting municipal
20 boundaries?
21 A Yes. It was a section dealing with the 1983 court
22 decision that established legislative boundaries.
23 Q Do you know if that prohibits splitting
24 municipalities in drawing a legislative district
25 map?

A It does not prohibit it.
Q What does it say about it?
MR. EARLE: I'm going to object. This quiz about his view of the law with a law book in front of him is kind of like you're asking him for legal interpretation.
MR. KELLY: That's fair. I don't intend to follow this very far.
A You want me to look?
Q I'm really more interested in knowing how you account for this as you come up with your opinions on what's a good map versus not a good map. When you come up with those opinions if you refer to the statutes then sure we can go and look at the statutes.
A No. I was referring to --
MR. POLAND: Before you answer I just want to object to the form of the question.
A I'm sorry. Can you ask the question again?
Q I sure can. If in coming up with your opinion about whether a map splits too many municipalities -- if you have recourse to statutes in doing that, then let's take a look at the statute. If that's not necessary for you to come

up with your conclusion, then I just want to hear from you what you consider to be the standard for what constitutes splitting too many municipalities.
MR. POLAND: Object to the form of the question and I think it misstates his opinions.
A I did not make a claim that Act 43 split too many. I made a specific claim that it unnecessarily split municipal subdivisions and gave the examples of the city of Beloit and the city of Marshfield. And that was not in reference to a particular statutory citation but one of the traditional redistricting principles.
Q So your opinion on that was simply that it just wasn't necessary?
A That's correct.
Q The map could have been drawn in another way that wouldn't have split those municipalities?
A That's correct.
Q Did you draw a map that would have avoided splitting those municipalities and then observe what affect that might have had on municipal splits in other districts surrounding that or any of the other traditional redistricting principles?

A I did not.
MR. EARLE: Form.
Q Well, finally, we get to look at your report.
MR. EARLE: Now he's going to start the deposition.
MR. KELLY: Yes. We begin now.
(Exhibit Nos. 1016 and 1017 marked for identification)
Q Professor Mayer, you have been handed what's been marked 1017. Can you take a look at that and tell me what it is.
A It is my December 14, 2011 expert report.
MS. LAZAR: For the record I'll note that when you have tabbed spaces there's handwriting in between on single spaces. That was not in your report. I wrote those tabs one through I think it's eight. So if you note those, those are my handwriting.
THE WITNESS: Okay.
MS. LAZAR: Actually, one through nine.
THE WITNESS: Okay.
Q Would you turn with me to Page 6 of your report. I see that there are three bulleted points under Section III A. Do you see that?

A Yes.
Q The third of that says, "It appears that the congressional redistricting plan has the same flaws as the legislative plan," and it goes on from there. Do you see that?
A Uh-huh.
Q Does this report, Exhibit 1017, contain an analysis of Act 44?
A In the rest of the text?
Q Correct.
A I don't believe so. Let me just double-check. No.
Q Has anyone retained you to provide an opinion on Act 44 in this case?
A I would have to go back and look at my original retainer letter, but I focused the bulk of my attention on Act 43.
Q Do you intend to provide any opinion on Act 44 at the trial of this matter?
A It depends on what issues come up and what I'm asked about, but I suspect not.
(Exhibit No. 1018 marked for identification)
Q Professor Mayer, you have been handed what's been marked as 1018. Will you take a look at that,

1 please, and tell me what it is.
2 A This is my January 13th rebuttal report.
3 Q Does your rebuttal report address Act 44 at all?
4 A No.
5 Q To the best of your knowledge have you submitted
6 any report in this action that addresses Act 44?
7 A Other than what was in my original report. These
8 are the only things that I've formally submitted.
9 Q So when you're referring to your original report,
10 that would be Exhibit 1017?
11 A Yes.
12 Q And the extent to which 1017 analyzes Act 44 is
13 that third bullet point on Page 6; is that
14 correct?
15 A That's correct.
16 Q Let's look at the bottom of Page 6 of Exhibit
17 1017. The last sentence says, "In addition to the
18 statutory and constitutional requirements, states
19 are bound to comply with traditional redistricting
20 principles." Then it continues on the next page
21 to list some of those principles. What is it that
22 binds the states to complying with those
23 principles?
24 A The fact that a plan that is challenged in court
25 may in the sense of could possibly be overturned

1 on the basis of violations of some of these
2 principles.
3 Q And I'm going to use Page 7 to take a step back,
4 actually, to finish up something that I missed.
5 On Page 7 your point number four for the
6 redistricting principles is disenfranchising as
7 few voters is required under the applicable
8 standards. Do you see that?
9 A Yes.
10 Q Is that a constitutional mandate?
11 A I don't believe so.
12 Q Is it found anywhere in the statutes to the best
13 of your knowledge?
14 A It may be.
15 Q But you don't know?
16 A I don't know. Can I add something to that?
17 Q Please.
18 A It was an important issue in the last round, the
19 2001-2002 round, the *Baumgart v. Wendelberger*.
20 That was one of the issues that I looked at.
21 Q The delayed voting?
22 A Yes.
23 Q That was an important factor in 2002?
24 A It was in the decision. It wasn't a major part of
25 my analysis, but it was something that the judges

1 paid attention to.
2 Q Would you turn with me to Page 11 of Exhibit 1017.
3 Look at the first full paragraph. This is the
4 section -- correct me if I'm wrong, but this is
5 the section that discusses how many people got
6 moved from one district to another; is that right?
7 A That's correct.
8 Q In the second sentence you say, "But to achieve
9 this," that is, population equality, "the enacted
10 plan shifted more than 3.5 million individuals
11 around from one district to in other -- in effect,
12 a small net population change was achieved by
13 moving a large fraction of the State's
14 population." Do you see that?
15 A Yes.
16 Q Where did that 3.5 million figure come from?
17 A That came from a report that I asked Joel Gratz to
18 generate which looked at the number of people that
19 were moved into or out of each district and I
20 simply summed those totals up and that's how I
21 arrived at that figure.
22 Q Doesn't that method result in double counting
23 movements? That is to say, you're counting them
24 once when they leave a district and then again
25 when they're entering the new district?

1 A Let me check. I would have to look at my original
2 spreadsheet. It looks like for each district I
3 calculated the number of people who were moved in
4 and moved out and came up with a total population
5 shift for each district.
6 Q So when you are counting for -- let's just pick
7 two districts. We'll say they're next to each
8 other, district one and district two. You're
9 counting one set of people in district one who are
10 leaving that district, right?
11 A Uh-huh.
12 Q And they go somewhere, right? They don't just go
13 away. They go into another district. And in that
14 district they are counted as coming into a
15 district; is that right?
16 A I believe so, yes.
17 Q So what you would be doing, if we just had this
18 two exhibit example or two district example, you
19 would be counting those people twice, once as they
20 left the district and once as they entered the new
21 district.
22 A I'm just trying to mentally add up some of these
23 numbers.
24 Q If it would be more helpful, is that one of the
25 tables that would be on the CD that you produced

1 today?
2 A I believe so. It was one of the files that I
3 produced as part of the expert report. The only
4 reason I'm hesitating is that is something that I
5 thought of when I originally did this, and I
6 believe I corrected for that by making an attempt
7 to not double count to correct for this problem.
8 I would have to look at which column I added to
9 see -- it's possible that I added up the totals in
10 Column Six and divided it by two.
11 MR. EARLE: Should we go off the
12 record and take a look at that?
13 MR. KELLY: If it's on the DVD,
14 perhaps that would be the best way to do
15 that.
16 We can go off the record.
17 (Recess)
18 Q All right. Before we took the break, Professor
19 Mayer, you were taking a look at Page 11 of
20 Exhibit 1017, your report in this case, and in
21 particular the figure of 3.5 million individuals
22 shifted from one district to another. You were
23 taking a look at -- we took the break so you could
24 take a look at some of the material that you
25 referenced in creating this report. Would you

1 mind telling me what you found.
2 A I took a look at the spreadsheet that I used to
3 calculate this number, and, although my
4 recollection was that I had corrected for that
5 possibility, it appears that I did not.
6 Q So do we know what the actual number should be?
7 A Well, there are different ways to interpret it.
8 If you count, as you put it, double counting, that
9 number would be divided by two.
10 Q So say approximately 1.75 million?
11 A Roughly.
12 Q Okay.
13 A Again, the overall number is different from the
14 numbers that pertain to each district. But the
15 overall number, yes.
16 Q In going down to the next paragraph on that page,
17 the second sentence, "These shifts were
18 unnecessary to achieve population equality, since
19 equality could, by definition, have been achieved
20 by a general shift/change ratio much closer to 1
21 than the overall average ratio of 53.5 for the
22 assembly or 55.0 for the senate." Accounting for
23 the change in the 3.5 million figure, how would
24 those ratios change? Do you know?
25 A I don't. It's difficult to say because those were

1 calculated as the average for each district and
2 for each district the people who were moved was
3 compared to the population change that was
4 required to achieve or to get sufficiently close
5 to population equality. So while I agree that the
6 overall number would need to be changed, I would
7 suggest that those ratios are more defensible
8 because they apply to each particular district in
9 which people are not double counted.
10 Q Let's do this and then we will go off the record
11 so we can switch the DVD.
12 (Exhibit No. 1019 marked for
13 identification)
14 Q Professor Mayer, you have been handed what's been
15 marked Exhibit 1019. Would you please take a look
16 at that and tell me what it is.
17 A This constitutes some corrections I made to my
18 original report when upon further investigation I
19 discovered some errors in some of the original
20 calculations and in the graph of Latino versus
21 non-Latino voter registration in Milwaukee in the
22 city of Milwaukee.
23 Q Just so you know, the Exhibit 1017 does not have
24 the corrected pages so I've got the original pages
25 in there. The corrected pages are now before you

1 as Exhibit 1019. All right. Can you tell me what
2 types of factors can affect core population
3 retention in drawing a new legislative map.
4 A Well, that question as phrased is difficult to
5 answer because there are myriad factors that can
6 affect core population retention. The calculation
7 of core population retention is a relatively,
8 well, relatively simple probably overstates it,
9 but is a matter of determining what parts of the
10 old district or the greatest part of an old
11 district that might have had a different number is
12 retained in the newly drawn district.
13 Q I might have misunderstood this part of your
14 report. Was this part of your report, looking at
15 core retention, done to suggest that there may
16 have been a partisan motivation for how core
17 retention played out in republican versus
18 democratic seats?
19 A That was not the intent of doing it, but I did
20 notice a pattern when I compared the core
21 population retention in districts that were
22 represented by democrats versus republicans who
23 were elected in 2012. And I note that this --
24 well, there were no members of the assembly who
25 were recalled. But I did not take into account

1 the results of the senate recalls in making any of
2 these calculations.
3 Q You mentioned that there are myriad factors that
4 can affect core population. Partisan motivation
5 would just be one; is that right?
6 A That's correct.
7 Q Did you attempt to control for all of those other
8 factors that can affect core population in coming
9 to a conclusion about whether there was any
10 partisan motivation in how the core retention
11 played out in republican versus democratic
12 districts?
13 A I did not. But my assumption in doing the
14 analysis is that over the full range of districts
15 that those affects would absent the partisan
16 motivation average out because they can be
17 affected by areas of population growth, areas of
18 population decline and so forth. But my
19 assumption was that there wouldn't be a partisan
20 pattern in those factors.
21 Q Let's take a look at those assumptions. You
22 mentioned one of them, population growth or at
23 least population change. Do all parts of the
24 state affect population change to the same extent?
25 A No.

1 Q Let's take for the sake of discussion southeast
2 Wisconsin and in particular Milwaukee County and
3 some of the surrounding counties. Have all of
4 those counties in southeast Wisconsin experienced
5 population change in the same way?
6 A No.
7 Q What's been the difference?
8 A The city of Milwaukee has I believe lost
9 population either in the absolute or relative to
10 other areas. The suburban areas either on the
11 outskirts of Milwaukee County or the surrounding
12 areas along with Dane County have tended to grow
13 in population.
14 Q What do you know about the partisan affiliation of
15 the population say in Milwaukee County as opposed
16 to the contrast with the collared counties?
17 A Well, Milwaukee County is significantly more
18 democratic, and the surrounding counties,
19 Waukesha, Ozaukee, et cetera, are republican
20 strongholds.
21 Q And you consider that would be a significant
22 differential between those?
23 A Yes. But it's not clear that population growth
24 can be expected to affect core district retention
25 in the manner that's similar to places that lose

1 population because if an area of the state has
2 sufficient population loss that it loses a
3 district, you have to reconfigure all of the
4 districts in that area which will have an impact
5 on core population retention in that area.
6 Similarly, if an area has grown to the point where
7 it requires you to draw up a new legislative
8 district, then drawing that new district will have
9 an impact on the other districts in that area. So
10 it's not necessarily the case that areas of
11 growth, republican areas, can be expected to have
12 lower core retention than democratic areas that
13 have lost population.
14 Q What happens if there is a -- let's say Milwaukee,
15 the southeast Wisconsin area. There's an area of
16 population decline so the districts have to grow
17 but they're able to expand out far enough to
18 capture the population they need without going too
19 far into strongly republican territories. What
20 affect would that have on the partisan comparison
21 of core retention?
22 A If I understand your question that if you had an
23 area of the state like Milwaukee that lost
24 population and consequently needed to reconfigure
25 the districts around that area so that they were

1 as they may once have been entirely contained
2 within Milwaukee County but now had to reach out
3 as a number of them do, that they begin either in
4 the city of Milwaukee or in the county of
5 Milwaukee and extend across the county line into
6 Waukesha County, I would expect that the affect on
7 core population retention would be roughly similar
8 in both areas because in one case you are changing
9 the configuration of districts in a democratic
10 area and in the other case you're reaching into a
11 republican area and adding. So the core
12 population would, not completely, but I would
13 expect that the overall affect would be similar in
14 the sense of you wouldn't see 80 percent in one
15 instance and 20 percent in another.
16 Q What if the way that the population equalization
17 process worked out was to simply eliminate a seat
18 in the Milwaukee area and recreate it somewhere
19 out in the Dane County area? Would that have an
20 affect on the partisan analysis of core retention?
21 A That would have an affect of reducing -- my
22 expectation is that would have the affect of
23 reducing the core population retention in both
24 areas. But, again, a change of one or two
25 districts is not sufficient to cause an overall

1 difference when you're talking about 99 districts.
2 Even 100 percent change if you averaged across all
3 democratic or all republican districts would be
4 less than a 3 percent change in the overall
5 democratic average and less than that in the case
6 of republicans since they hold more seats.
7 Q If we refer to Exhibit 1019, you note on Page 12
8 an approximate nine percentage point difference
9 between core retention figures for republicans as
10 opposed to democrats.
11 A That's correct.
12 Q All right.
13 A This is after the corrections I made.
14 Q Correct. So now if we were to account for that
15 lost seat in southeast Wisconsin and being
16 recreated elsewhere, how would that affect those
17 numbers?
18 A Not by much. I would expect that you would see a
19 core population retention drop by 10 or
20 15 percentage points in both areas. Again,
21 without looking at the corrected data file I'm not
22 precisely sure what they would be, but that's not
23 the major cause of this disparity. That's a
24 factor in it, but a change like that of dropping a
25 district here and adding a district in that area

1 would be insufficient to cause this kind of change
2 because you also saw growth in republican areas
3 which would tend to drive down the core retention
4 in areas of growth.
5 MR. KELLY: I think we probably
6 need to change the DVD.
7 (Recess)
8 Q If a seat disappears and gets recreated in another
9 place, that would be 100 percent new population
10 for that recreated seat. Would that be correct?
11 A No. That would be incorrect.
12 Q Why is that?
13 A Because there would still be portions of that
14 newly created district that existed in the
15 previous districting plan. The core district
16 retention wouldn't be zero, but it would be --
17 depending on how the district was configured, it
18 would be a number. I can't say without knowing
19 which district we're speaking of because I did
20 prepare or have a spreadsheet prepared that listed
21 the core district retention. In fact, this is the
22 sheet where I identified the ones that I had to
23 correct.
24 Q Let's go ahead and mark that as an exhibit then.
25 A I don't know that this has the corrections on it.

1 Let me just look at this for a moment.
2 Q Sure.
3 A I would have to look at the corrected spreadsheet
4 that I did because this was how I identified the
5 places that I needed to recalculate.
6 Q Let's go ahead and mark that as an exhibit.
7 (Exhibit No. 1020 marked for
8 identification)
9 Q Can you just tell me what Exhibit 1020 is as it is
10 before you.
11 A Well, when I compared my core district retention
12 numbers to the numbers that Professor Gaddie had
13 created, I noticed a large number of discrepancies
14 where his numbers were different than mine. I
15 prepared a spreadsheet that listed what I had and
16 what he had, and, when the numbers did not match,
17 I investigated to see what the cause was and
18 whether my numbers were correct or whether his
19 calculations were correct. So the delta, which is
20 the rightmost column, is 0 for all of the
21 districts in which the core population retention
22 was the same. And in every case where it was
23 above 0 I investigated by looking to see whether I
24 needed to recalculate those numbers. Basically
25 the numbers that under the column listed as Gaddie

1 -- if I concluded that his numbers were the
2 correct ones, I drew a line under them and then
3 usually wrote a C next to it to designate correct.
4 In those cases where I concluded that my numbers
5 were more accurate, which is under Core Population
6 Retention, I underlined that number and wrote a C
7 next to it.
8 So one of the things that we can infer from
9 this table is that the assembly districts in the
10 Dane County area, I don't know exactly what the
11 numbers are, they tended to be the democratic
12 districts between the 72nd and 81st district. In
13 the three cases that I corrected them, which is in
14 the 76th, the 80th, and the 81st, my corrected
15 numbers actually increased the core population
16 retention and in one case significantly. My
17 original calculation was 6 percent, and I
18 concluded that was incorrect and substituted
19 Professor Gaddie's number of 57.6 percent. I
20 don't think that you can make a general statement
21 that the fact that -- one of the reasons why these
22 numbers differ is that initially Professor Gaddie
23 and I used different rules. For the most part he
24 calculated -- he used a different process for
25 calculating incumbency, areas where there was

1 still an incumbent, and areas where there were new
2 districts where I tried to apply a consistent rule
3 whether or not it was an open seat or a paired
4 seat or a newly created seat. That actually
5 occurred in a number of areas in Dane County
6 because there was an additional seat created. So
7 that was the source of, one source, of the errors.
8 But you see in the 76th my original calculation
9 went from 12 to 68, went from 6 to 57. It raised
10 those numbers which is why the differential
11 decreased from 13 percent to 9 percent. So it's
12 not the case that that division of losing seats in
13 Milwaukee and gaining seats in Dane County drove
14 down the numbers. Actually, when they were
15 corrected, it drove the numbers up --
16 Q All right.
17 A -- for democrats.
18 Q So the work that's reflected on Exhibit 1020 went
19 into the corrections that you supplied in
20 Exhibit 1019?
21 A That's correct.
22 Q Does your analysis of core population retention
23 with respect to republicans versus democrats
24 control for complying with the Voting Rights Act?
25 A No.

1 Q Could compliance with the Voting Rights Act have
2 an affect on core retention?
3 A That's actually unlikely because compliance with
4 the Voting Rights Act would tend to give the map
5 drawers an incentive to keep the old districts,
6 much of the old district cores intact, because
7 dramatic changes in the district composition
8 absent significant population or dramatic
9 population growth could conceivably become part of
10 a voting rights claim if the core district
11 retention was dramatically lower. If you look at
12 the Milwaukee districts, which are basically 7
13 through 13, those numbers tended to be not
14 dramatically below the average of 53 percent.
15 Some of them are a little bit higher. Some of
16 them are a little bit lower. The one that's the
17 lowest, 31 percent, 30.9 percent, is the 7th
18 district. So I don't think that that in itself
19 accounts for a major part of the disparity.
20 Q Is it possible if the map drawer privileged
21 reuniting communities of interest over core
22 retention could that adversely affect core
23 retention numbers?
24 A It could have a marginal affect, but, again, given
25 the number of areas where that was likely an issue

1 I suspect that it would not have a significant
2 affect.
3 Q So in your view what is the major driving
4 causative affect of a low core retention?
5 A Well, again, not knowing the motivations of the
6 map drawers -- I've read the depositions. I've
7 read the hearings. It's not clear what their
8 motivations were beyond what they testified which
9 was basically equal population and concern for
10 minority communities. It does certainly provide a
11 reason to suspect that there was some other factor
12 that was behind the empirical fact that democratic
13 districts appear to have been reconfigured
14 differently than republican districts. But,
15 again, I'm inferring from the data at hand absent
16 a clear picture of what the people who say they
17 drew the map did or what they said they did.
18 Q Is a 59.1 percent core retention for an average
19 for democrats versus an average of 68.2 percent
20 core retention for republicans -- does that make
21 Act 43 an invalid map?
22 A No. Not by itself.
23 Q Is there to your knowledge any differential beyond
24 which it would necessarily mean that the map was
25 invalid?

1 MR. POLAND: Object to the form of
2 the question.
3 A Based on my understanding of the juris prudence
4 which is based as an informed observer social
5 scientist and not as a legal scholar, I would say
6 extremely unlikely. It would have be an
7 extraordinary set of circumstances for that to be
8 viewed as constituting an invalid map.
9 Q Do you know what the term political gerrymandering
10 means?
11 A Yes, I do.
12 Q What does it mean?
13 A It means that a party in power uses its authority
14 to draw maps to provide for a political advantage
15 for members of that party by drawing districts in
16 a particular way, packing democrats, cracking
17 democrats, packing republicans, cracking
18 republicans and so forth.
19 Q Do you know if there is a standard either in the
20 constitution, statutes or case decisions that sets
21 forth a test so you can know whether a political
22 gerrymander had occurred?
23 A Under the U.S. Constitution the answer to that
24 question is no. There are two major supreme court
25 decisions, one from I believe it's the 1980s,

1 *Davis v. Bandemer*, and one from 2000, *Vieth v.*
2 *Jubelirer*. In effect the *Vieth*, if I'm
3 pronouncing that correctly, was a plurality
4 decision which established the principle that
5 political gerrymandering is a non-justiciable
6 issue.
7 Q What do you understand a non-justiciable issue to
8 be?
9 MR. POLAND: I'm going to object to
10 the extent that it calls for a legal
11 conclusion.
12 A My understanding is that it means that the courts
13 will decline to become involved in the issue and
14 will leave it up to the political branches to work
15 out.
16 Q Let's take a look at Page 14 of Exhibit 1017. I'm
17 looking at sub point three which is the
18 compactness analysis.
19 A That's Page 13.
20 Q Right. It carries over to 14; is that right?
21 A The bullet points do not. The last two paragraphs
22 of that section are on Page 14 in my copy.
23 Q Let me see. I think we have got the same thing.
24 That's fine. Let's start with Page 13. You
25 identified four compactness calculations there; is

1 that correct?
2 A Yes. And it looks like I misidentified the Roeck
3 test which had nothing to do with circles but
4 instead looks at the area of the minimum convex
5 shape that can surround a district.
6 MR. POLAND: Just a point of
7 clarification. Are you asking him about the
8 corrected pages or the other pages?
9 MR. KELLY: That's right.
10 MS. LAZAR: There's only one thing
11 I think on that page.
12 MR. POLAND: I just want to make
13 sure that we're clear.
14 Q Why don't we look at the Page 13 on Exhibit 1019.
15 A The only thing that changed was the numbers in the
16 last sentence or, actually, the last number in
17 that paragraph which changed from 78.2 to 77.4.
18 Q So that's not affecting our discussion with
19 respect to compactness. Looking back on our
20 conversation this morning then, is there a better
21 name that we should assign to what we were
22 referring to as the Roeck test?
23 A I would prefer to use the terms that I had here.
24 I should have asked to look at this.
25 Q That's fine. If you wished after the deposition

1 is over to change the reference on the
2 transcript -- I'm not going to hold that against
3 you if you want to do that. Otherwise we can just
4 agree that it should be referred to as which of
5 these?
6 A Which measure are we talking about?
7 Q Whatever we identified as the Roeck test.
8 A I had misidentified the convex hull or Roeck test
9 which I list as number three as the circumference
10 measure.
11 Q We talked about a variant of the perimeter test
12 being the Roeck test. What would be the better --
13 A The circumference measure which is number two.
14 The area of the circle with the same area as the
15 district divided by the perimeter of the district.
16 Q So you identified four equations and you said you
17 calculated the values for all four; is that right?
18 A That's correct.
19 Q Do the calculations for all four appear on a table
20 somewhere?
21 A Let me check. I don't believe they do. Although
22 I believe I provided the spreadsheet on which
23 those calculations were based, I did not make an
24 exhibit out of that.
25 Q And when you say you produced it, would that be in

1 the material you produced today or that
2 accompanied your reports at the time?
3 A I believe it's what accompanied the report. Let
4 me just check. Yes. It would be the assembly
5 compactness report, the assembly 2011 compactness
6 report.
7 Q Where are you looking right now?
8 A On Page 4. It's about the eighth, ninth, tenth
9 and eleventh files.
10 Q Seven through eleven?
11 A I would say nine through eleven.
12 Q That has the scores for all four of those
13 calculations?
14 A I believe they do.
15 Q Let's talk a little bit about delayed voting. I
16 think as you made clear in your report because
17 Wisconsin has staggered four-year senate terms if
18 a person in one cycle is in an even numbered
19 district and gets moved to an odd numbered
20 district there would be a two-year delay in their
21 ability to vote for a senator.
22 A That's correct.
23 Q I may have asked this earlier. I apologize if I
24 did. Is the requirement to consider the affect of
25 redistricting on delayed voting -- is that a

1 constitutional, statutory or common law issue?
2 A I'm afraid I can't answer that because I'm not
3 qualified to answer questions about common law.
4 Q That's fair. Have you seen that embodied in a
5 constitutional provision?
6 A I don't believe so. Not in the state of
7 Wisconsin.
8 Q Have you seen it embodied in a Wisconsin statute?
9 A I don't believe so, but I've seen it addressed in
10 a number of judicial decisions going all of the
11 way back to 1983.
12 Q So what we know is that this is something that
13 whoever is drawing a new legislative district map
14 should be considering?
15 A That's correct.
16 Q Do you know if there is an upper limit on people
17 who would have delayed votes beyond which would
18 invalidate a map?
19 A I'm not aware of any particular threshold. I know
20 that the traditional goal is to keep that number
21 as small as practicable or as small -- not as
22 small as possible but as small as it can be given
23 the other interests, other values and principles
24 in play.
25 Q I like the distinction you made. So there's a

1 difference between as small as possible on the one
2 hand and on the other as small as practicable.
3 Would that be true?
4 A Yes.
5 Q And the difference is that small as is practicable
6 accounts for the fact that there are other
7 redistricting considerations that may affect the
8 number of people who have delayed voting?
9 A That's correct. But I also know that given any
10 particular map that there will invariably be
11 alternatives that disenfranchise fewer voters or
12 fewer population because it applies to population
13 and not just voters.
14 Q In those alternatives those alternatives might
15 adversely affect other traditional redistricting
16 principles.
17 A That's possible.
18 Q And it is acceptable that someone drawing a map
19 might put more weight on those other traditional
20 redistricting principles than they put on the
21 delayed voting affect?
22 A Well, I'm not sure I would agree with that for two
23 reasons. One is that the delayed voting -- in
24 thinking about the weight that I gave to these
25 different principles, I would actually rank that

1 higher than say even something like compactness
2 because the disenfranchisement has a direct impact
3 on the ability to exercise a right guaranteed
4 under the Wisconsin constitution and that in my
5 view it will in general be the case that you
6 should be able to draw a different configuration,
7 different map configuration, that does not have a
8 materially harmful or does not materially affect
9 or diminish these other values, other principles,
10 while still attempting to minimize the number of
11 disenfranchised voters.
12 Q So for you personally you weigh the delayed voting
13 affects of a map more heavily than other
14 traditional redistricting principles?
15 A I don't think it's just a matter of me personally.
16 I think it's something that certainly judges pay a
17 good deal of attention to.
18 Q Is there a requirement to weigh delayed voting
19 affects more heavily than other traditional
20 redistricting principles?
21 A A requirement?
22 Q Uh-huh.
23 MR. POLAND: Object to the form of
24 the question.
25 A I'm not aware of one.

1 Q So it could be legitimate for a map drawer to
2 weigh a different redistricting principle more
3 heavily than the delayed voting affects.
4 MR. POLAND: Object to the form of
5 the question.
6 A Well, again, it's contextual. That's a purely
7 hypothetical question that depending on the
8 principle that's at stake and the magnitude of the
9 change that would be required in order to reduce
10 the number of disenfranchised voters or
11 disenfranchised population -- I can envision
12 circumstances in which that could happen.
13 Q You mentioned that delayed voting affects a
14 specific right protected by the Wisconsin
15 constitution. What right is that?
16 A As I read it that it is the right to vote for a
17 state senator every four years.
18 Q Do you know, is that the section that sets a
19 senator's term at four years? Is that what you're
20 referring to?
21 A Yes.
22 Q Do you know if there was a provision of the
23 Wisconsin constitution that says a voter has a
24 right to vote every four years for a senator?
25 A I believe that's implied in setting the term of a

1 senator at four years.
2 Q Why do you believe that's implied?
3 A Because we elect senators and if senators in one
4 district are elected every four years, the only
5 way that can happen is for people in that district
6 to vote every four years. I also believe that's
7 true because the judicial decisions that I'm
8 familiar with place significant weight on the
9 notion of disenfranchisement in which voters, when
10 they are shifted or when district -- I'll put it
11 as district lines are redrawn because voters are
12 not actually physically moved. When district
13 lines are redrawn and they wind up in an odd
14 numbered district and when they were previously in
15 an even numbered district and in the even number
16 district they voted in 2008 and would normally,
17 other things being equal, would be able to vote in
18 2012 when they are redistricted they do not have
19 an opportunity vote for senator until 2014.
20 Q Let's talk just for a moment about a voter who
21 does physically move. He moves from an even
22 numbered district to an odd numbered district and
23 so is unable to vote for senator again for an
24 extra two years. Has his constitutional right
25 been violated that you have identified?

1 MR. EARLE: You're asking for a
2 legal opinion.
3 A The comparison is inapposite because if I
4 voluntarily move, then I am -- just as if I make a
5 decision to move out of state I lose my right,
6 constitutional right, to vote in Wisconsin
7 elections. But there is no -- I don't believe
8 that there is a constitutional right implicated
9 because I've made a voluntary decision to move
10 whereas in redistricting it's not voluntary. The
11 decision is made for the voter.
12 Q In your opinion the constitution can be violated
13 however for a certain number of people.
14 A Well, again --
15 MR. POLAND: Object to the form of
16 the question.
17 A Again, I'm not an expert in constitutional law,
18 but my understanding is that almost every
19 constitutional provision can be breached or can be
20 conditioned on depending on whether the
21 governmental interest is sufficiently strong to
22 overweigh that. That applies to the 1st Amendment
23 to the 14th Amendment in the federal constitution.
24 So the need to redistrict and equalize population
25 will inevitably result in some people being moved

1 from even to odd senate districts because of
2 population shifts. So if the state supreme court
3 or federal courts held that it could never happen,
4 it would make the redistricting process -- it
5 would not be possible to meet the other criteria
6 of equalizing population.
7 Q Is it your opinion that having 299,000 or so
8 individuals who experience delayed voting is too
9 many?
10 A I believe the map could have and should have been
11 drawn so that fewer people were disenfranchised.
12 I base that not only on my opinion but in the
13 three-judge panel's decision which, again, I'm
14 probably going to get the procedure wrong, but
15 they denied the motion to dismiss.
16 Q Do you know why they denied the motion to dismiss?
17 A Without having it in front of me I don't know that
18 I could say with certainty.
19 Q Let's take a look at Exhibit 1018. Don't close up
20 your main report. Let's just put it aside for the
21 moment. If you would turn --
22 A I don't have it.
23 MR. POLAND: It's your letter
24 report.
25 A I see it here.

1 Q If you could turn to Page 4. At the bottom of
2 what looks like -- it's actually the second
3 paragraph where you say -- do you see where you
4 say, "Yet he provides no justification for the
5 disenfranchisement of such an extraordinary number
6 of people"? Do you see that? I count the two
7 lines at the very top as being a paragraph.
8 A Okay. Yes. I see. It's the big paragraph. Yes.
9 Q Why do you say that that's an extraordinary
10 number?
11 A Because based on the decision of the 2002 court
12 and the 1992 court those numbers are larger than
13 they had been in each of the previous two
14 redistricting cycles.
15 Q What were the numbers in 1992?
16 A I believe the absolute number was about 177,000,
17 but I would have to look. Yes. The 2002
18 redistricting map was 177,000 and the 1992 was
19 257,000. That number is on the first full
20 paragraph on Page 5.
21 Q In terms of percentage of population how does that
22 differ?
23 A It's significantly larger than the 2002 round and
24 only marginally greater, one-one hundredths of a
25 percentage point, than the 1992 round.

1 Q If the proportional number is only a fraction of a
2 percent greater than the 1992 number, would that
3 still be an extraordinary number?
4 A Based on the absolute number and based on my
5 belief that a map could have been drawn with the
6 smaller number of disenfranchised voters -- just
7 to give one example, the way in which the
8 southeast corner of the state was redistricted
9 between the 20th and 21st whereas up until 2011
10 most of Racine County and Racine constituted one
11 senate district and most of Kenosha County to the
12 south constituted a senate district and during
13 this round they were reconfigured so that Kenosha
14 and Racine were placed into a single senate
15 district and the remainder of those counties plus
16 some other areas were placed into a senate
17 district. By my calculation that single decision
18 alone disenfranchised I think I noted 72,000
19 people or close to 72,000 people.
20 Q Do you know why the senate districts were
21 reconfigured that way?
22 A I know what the claim was; that by linking Racine
23 and Kenosha that the senate districts reconnected
24 two cities that -- the claim was that that
25 constituted a community of interest.

1 Q Does it?
2 A Based on the responses that I've heard from people
3 in Kenosha particularly, who are not have happy
4 about that reconnection, I'm not persuaded.
5 Q Did you talk to people in the rural parts of
6 Racine and Kenosha counties?
7 A No, I did not.
8 Q Is it possible that given that they're both rural
9 that they consider themselves to be a community of
10 interest?
11 A It's possible.
12 Q Is it possible that there's a legitimate
13 distinction in communities of interest between
14 urban and rural?
15 A It's possible.
16 Q I get the sense that you don't think so, though.
17 A Well, my conclusion is that I am unpersuaded that
18 that reconfiguration, given that it had been that
19 way for some time, was worth disenfranchising
20 72,000 people.
21 Q Is that a prudential decision or is this a matter
22 of right versus wrong?
23 MR. POLAND: Object to the form of
24 the question.
25 A I'm not sure I can give a definitive answer to

1 that question. I would regard that as -- let me
2 be cautious here. I would regard that as an
3 indefensible decision not in the sense that
4 there's no possible justification for it but that
5 the justification offered is not sufficient to
6 warrant that particular decision.
7 Q Insufficient in whose eyes?
8 A Well, insufficient in my eyes as someone who knows
9 something about the redistricting process. I'm
10 not just making an uneducated guess here.
11 Q But it could be sufficient in someone else's eyes?
12 A That's possible.
13 Q But you can't point at that decision and say that
14 is a wrong decision and may not be made.
15 MR. EARLE: Object to the form of
16 the question and the emergent thespian nature
17 of it.
18 MR. KELLY: I didn't even touch the
19 table or the paper or anything.
20 A I'm sorry. I have forgotten the question.
21 Q We'll go back and let's do the question again.
22 (The following was read by the reporter:
23 Q "But you can't point at that decision and
24 say that is a wrong decision and may not be
25 made.")

1 MR. POLAND: I will simply object
2 to the form.
3 A I will state that I disagree with the premise of
4 that question, but ultimately my answer would have
5 to be yes, that's correct.
6 Q Yes that's correct that you can't point to that
7 and say it's a wrong decision that may not be
8 made?
9 A Yes.
10 MR. POLAND: Let me object to the
11 form of the question.
12 THE WITNESS: I'm sorry.
13 MR. EARLE: Same objection.
14 Q Professor Mayer, you submitted an expert report in
15 the 2002 redistricting litigation in the state of
16 Wisconsin, is that right?
17 A That's correct.
18 Q Do you recall that your report was submitted in
19 support of I believe it was two different maps?
20 A I think that's correct. There were two democratic
21 alternatives and I think three republican
22 alternatives.
23 Q Do you recall if that report addressed delayed
24 voting affects of the maps that you were
25 supporting?

1 A It did.
2 Q Do you remember the number of individuals who
3 would experience delayed voting in the two maps
4 that you supported in that litigation?
5 A I believe that both of those maps had the number
6 of disenfranchised voters roughly of 350,000.
7 Q That is higher than the number of individuals
8 experiencing delayed voting under Act 43.
9 A Yes. But what I did in that portion of my report
10 is compare the disenfranchisement in the democrat
11 alternatives to the disenfranchisement in the
12 republican alternatives and very clearly stated on
13 this point that the republican maps were superior.
14 So it wasn't as if I was saying that this is fine
15 and that this is better than the republicans'. I
16 very clearly stated that the lower
17 disenfranchisement numbers meant that on that
18 particular dimension that the republican maps were
19 superior.
20 Q Did you provide any input to those who drafted the
21 democratic alternative maps?
22 A I did not.
23 Q Do you believe that the democratic alternative
24 maps proposed in 2002 were invalid because of the
25 number of individuals who had experienced delayed

1 voting?
2 A I was not asked to make that determination. I was
3 asked to compare the democratic maps and the
4 republican maps. That decision was beyond the
5 scope of what I was asked to do.
6 Q Do you think the number of individuals
7 experiencing delayed voting in the two maps that
8 you analyzed in 2002 for the democrats constituted
9 an extraordinary number of people?
10 MR. POLAND: I'm just going to
11 object to the form of the question and also
12 foundation.
13 A I honestly don't recall what I was thinking about
14 that at the time. It was a very small part of the
15 analysis. I focused most of my attention on other
16 issues.
17 Q Did you raise to the court the number of people
18 who had experienced delayed voting under the
19 democratic plans and pose to them that that would
20 be an extraordinary number?
21 A No. But I did say that the republican plans were
22 better on that score.
23 Q Did you suggest to the court that the democratic
24 plans would be indefensible because of the delayed
25 voting affect?

1 A No. Because I wasn't asked that question.
2 Q The number of individuals who experienced delayed
3 voting in 1992 I think you said was something in
4 the neighborhood of 250,000?
5 A 257,000.
6 Q Is that an extraordinary number of people?
7 A The three-judge panel signed off on it. I'm
8 certainly not going to substitute my judgment
9 about the validity of a number for three federal
10 judges'.
11 Q As a percentage of population Act 43's delayed
12 voting affect is within a few -- it's within a
13 fraction of a percentage of what the three-judge
14 panel in 1992 did; is that right?
15 MR. POLAND: I'm going to object to
16 the form of the question.
17 A The percentage of population disenfranchised under
18 Act 43 is only slightly larger in percentage terms
19 than the percentage disenfranchised in 1992.
20 Q So you wouldn't second-guess that three-judge
21 panel in assessing the percentage of population
22 that experiencing a delayed voting affect and what
23 could constitute an effective map.
24 MR. POLAND: Object to the form of
25 the question.

1 MR. KELLY: I don't like the
2 question at all. I'm just going to start
3 over.
4 Q Earlier you said that you wouldn't second-guess a
5 three-judge panel on what it considered to be an
6 acceptable amount of delayed voting affect, yes?
7 A Correct.
8 Q I'll just leave that. Let me go back to 1982. Do
9 you know if there was a legislative map or a
10 judge-made map in 1982?
11 A I believe in that case there was one of each.
12 Q Which one was enacted? Which one went into effect
13 first?
14 A I believe the judge-drawn map went into effect
15 first and then the legislature acted, but I could
16 be mistaken.
17 Q I think that's right. Do you know what the number
18 of individuals who would experience delayed voting
19 under the court-drawn map in 1982 was?
20 A I'm just looking to see whether I reference that
21 in my report. I don't know offhand what the
22 number or percentages were.
23 Q If I represented to you that the absolute number
24 of people who had experienced delayed voting under
25 the 1982 court-drawn plan was approximately

1 599,000 people, would you have any reason to
2 disagree with that?
3 A Well, not that I don't trust you, but I would
4 prefer to see the number.
5 Q I think that is a perfectly fair response. Assume
6 for the moment that that is the fact, that it was
7 approximately 599,000. Would you have any reason
8 for second-guessing the federal court in adopting
9 a plan that would have the affect of delaying
10 voting for 599,000 for two years?
11 A Well, my response would be that I would refer to
12 the 2002 case which disenfranchised essentially a
13 quarter of that as evidence that redistricting
14 technology, mapping software -- everything was
15 vastly different in 1983 than it is now, and that
16 may have been the best that could have been
17 accomplished given the state of technology. But I
18 think the evidence is clear now that it is
19 possible to draw a map with substantially smaller
20 populations of disenfranchised voters.
21 Q I take it you have not studied the 1982
22 court-drawn map?
23 A I have not.
24 Q Let's talk about the Latino districts for a little
25 bit. I'm sorry. I do need to back up. I don't

1 want to pass over this. This one is interesting.
2 Professor Gaddie in his report noted that of the
3 areas that would experience delayed voting that
4 comprise the 299,000 or so that in some of those
5 districts there were recall elections for senators
6 just this past summer and he reduced the number of
7 individuals who would experience delayed voting by
8 the number of people who had an opportunity to
9 vote in a recall election over the summer. Your
10 rebuttal report takes exception to that.
11 A Yes, it does.
12 Q All right. Now, what I'm wondering is -- the big
13 question is why, but the more specific question is
14 if we are talking about a right to vote within a
15 certain period of time, didn't the people who had
16 an opportunity to vote in the recall elections --
17 weren't they given an opportunity to vote at least
18 once within four years for a senator?
19 A Well, I think you're comparing apples and oranges.
20 Q Tell me why.
21 A My reading of or my interpretation of the right to
22 vote every four years provides the right to vote
23 in fixed elections just as the fact that someone
24 who faces recall is reelected or replaced that the
25 result of that election does not delay the

1 subsequent election by four years. It still takes
2 place as regularly scheduled in 2012. So I think
3 that it does not or ought not to be used as a
4 reason or justification or an explanation for why
5 it's okay to consider those voters or those people
6 who had an opportunity to vote to say that they
7 had an opportunity to vote in 2011 and their next
8 opportunity to vote is in 2014 and they only go
9 three years or three years and however many months
10 between elections. They still would have had the
11 right to vote in 2012 just like everybody who
12 remains in that district would have had. If you
13 were going to use that kind of accounting, you
14 would have to balance that by the fact that people
15 who either stayed in the original district or were
16 moved from an odd to an even numbered district get
17 an additional opportunity to vote because they
18 voted in 2008, 2011 or maybe even 2010 and they
19 still get an opportunity vote in 2012. I also
20 don't think that the fact that the exercise of one
21 right under the constitution provides a
22 justification for taking less seriously
23 disenfranchisement through redistricting.
24 Q So in your eyes, if I am understanding this
25 correctly, the right to vote for a senator is the

1 right to vote every four years. No more. No
2 less.
3 A No. That's incorrect. Because some people get
4 the right to vote more either through a recall or
5 when they're redistricted and moved from odd to
6 even. So there are a variety of things in play.
7 The fact is that the people who are moved from an
8 even to an odd district -- they lose their right
9 to vote in 2012, and that is not sufficiently
10 counteracted by the fact that they got the right
11 to vote under the recall in 2011.
12 Q But I thought, and I'm sure you'll correct me
13 where I'm wrong -- I thought that the injury from
14 redistricting that causes delayed voting is that
15 you would go six years without an opportunity vote
16 for a senator.
17 A You would go six years without the opportunity to
18 elect a senator in a regularly scheduled fixed
19 election. You could easily -- in the new district
20 there could be a recall and you would get the
21 right to vote in 2012, 2013 through the recall.
22 But that doesn't in my view diminish the harm in
23 being denied your right to vote in the 2012
24 election which you lost through that move.
25 Q All right. So the injury is not that you go six

1 years without an opportunity to vote for a
2 senator. The injury is that you go six years
3 without the right to vote for a senator in a
4 regularly scheduled quadrennial election?
5 A Yes. In my view a recall does not change the
6 nature of the right to vote in that regularly
7 scheduled election, and that is why in a senate
8 district -- say the numbers haven't changed. The
9 people who are in an even numbered senate district
10 or an odd numbered senate district who voted in --
11 I'm getting confused here. The people who got the
12 right to vote in a recall election in 2011 -- let
13 me make sure I'm talking about the right districts
14 here. All of the people who were elected in odd
15 numbered senate districts were elected in 2010,
16 November 2010. They took office I think in
17 December 2010 which means they cannot be recalled
18 until one year has passed since their taking
19 office. That means the only people who could be
20 recalled in 2011 were senators who were elected in
21 2008. The fact that they were -- I believe once
22 the final recall petitions -- it will be close to
23 every senator who was elected in 2008 may face a
24 recall. The fact that they had to run in a recall
25 and defend their seat has no bearing on whether an

1 election for that seat will again be held in
2 November 2012. So it's not as if you run in a
3 recall and that begins a new senate term of four
4 years.
5 Q Right. That's certainly true. But you
6 acknowledge that the fact that there was a recall
7 gave the people in those recall districts the
8 opportunity to vote for a senator and not wait
9 more than three years and whatever months before
10 the next time they would be able to vote for a
11 senator.
12 A Well, I dispute the premise of that question
13 because yes they did get the right to vote for a
14 senator but in the way that recalls are conceived
15 that is not the same as having the right to vote
16 for senator at the end of the four-year term.
17 Q Why is that?
18 A Because they don't lose that right unless they are
19 redistricted.
20 Q But as far as what's occurring in a recall
21 election, you are voting for a senator, right?
22 There's someone that stands for one party and
23 someone stands for another party and you choose
24 between them just like in a regularly scheduled
25 election, yes?

1 MR. EARLE: Object to the form of
2 that question.
3 A There are in fact substantial differences between
4 the two kinds of elections. As I pointed out in
5 my rebuttal report, turnout is substantially lower
6 in recall elections, even lower than the falloff
7 that occurs between a senate election that occurs
8 in 2008 during presidential election year and one
9 that occurs in 2010. If you think about the
10 context of the recall elections, most of them --
11 there were strategic decisions made about which
12 senators were going to be -- where those recall
13 efforts were focused. Most, not all of them, but
14 most of them were focused on races where the
15 democrats thought they had the best chance of
16 winning which meant that they were competitive,
17 enormous controversy over what was happening at
18 the state capitol, control of the state senate was
19 in play. These are things that should have or
20 would normally be expected to generate high levels
21 of engagement but still turnout was I think about
22 33, 34 percent lower than it was in 2008.
23 Q That doesn't have any affect, though, on their
24 ability to vote if they wanted to, correct?
25 MR. POLAND: Object to the form of

1 the question.
2 A It doesn't impose any impediments to their voting,
3 but the fact that it was a recall -- recalls are
4 not directly analogous to the regular elections
5 that occur during the campaign season and when
6 people are otherwise engaged because there's
7 either a presidential election or a congressional
8 election or certainly maybe a senate election in
9 two out of three cycles.
10 THE WITNESS: Can we take a short
11 break?
12 MR. KELLY: We may.
13 (Recess)
14 Q Professor Mayer, let's look at your rebuttal
15 report, Exhibit 1018, on Page 9.
16 MR. POLAND: Is that Page 9?
17 MR. KELLY: Yes.
18 Q Do you see in the first full paragraph on Page 9
19 that you refer to a 1983 process and decision by
20 this court?
21 A Yes.
22 Q What decision is that?
23 A I believe that's the original redistricting
24 decision, but I have to say I'm not 100 percent
25 sure.

1 Q What significance does that decision hold for you?
2 A Well, based on what I've written here that it said
3 that disenfranchisement of approximately 174,000
4 voters through renumbering of senate districts
5 constitutes a constitutional violation.
6 Q What do you conclude from that?
7 A Well, again, there's a certain contextual question
8 about what other issues are in play, but I take
9 that as the number of disenfranchised individuals.
10 It's possible to construct the map, and, again,
11 from the specific text it's not clear whether
12 that's voters or entire population. But that the
13 disenfranchisement ought to be and can be small.
14 Q That number in the 1983 decision, was that
15 significant to you?
16 A In terms of establishing the notion that the
17 number of disenfranchised voters should be small
18 and giving not necessarily a goal but a
19 possibility. That's how I read it.
20 Q So correct me if I'm wrong. You read that
21 decision and the 173,000 voter number to simply
22 indicate that the number ought to be small but you
23 didn't attach any specific importance to the
24 173,000 number?
25 MR. POLAND: Object to the form of

1 the question.
2 A I would have to say that I'm not sure that I
3 actually read the full 1983 decision. I think the
4 number was pulled from it. I would have to say
5 that I can't speak to the broader significance of
6 that or the specific context in which that
7 decision was reached.
8 Q The number reached or addressed in the 1983
9 decision, does that suggest to you an upper
10 threshold of delayed voters that would invalidate
11 a map?
12 A Not necessarily.
13 Q Let's talk a little bit about Assembly Districts 8
14 and 9. Generally speaking my understanding is
15 that you conclude that Assembly District 8 does
16 not provide the Latino community a realistic
17 opportunity to elect a candidate of their choice;
18 is that correct?
19 A I'm not sure if I would use the term realistic.
20 Q What term would you use?
21 A I would say equal opportunity as other voters to
22 elect a candidate of choice.
23 Q Why do you say that?
24 A Well, that conclusion is based on an analysis of
25 the eligible voting population among Latinos and

1 my judgment that the opportunity to elect is
2 conditioned strongly on the ability to vote and
3 given that a significant percentage of voting age
4 Latinos in the city of Milwaukee and in that area
5 are not citizens, they do not have the opportunity
6 to vote and so the calculation of the voting
7 eligible population is necessary in order to
8 establish that there is an effective voting
9 majority in those districts or in District 8.
10 Q So for you it's important to calculate the
11 percentage of citizen voting age population in the
12 Latino community as opposed to simply the Latino
13 voting age population.
14 A That's correct.
15 Q Do you know what the citizen voting age population
16 percentage in the Latino community was in 1998 in
17 District 8?
18 A I do not.
19 Q Do you know what it was in 2000?
20 A I have not done the calculations back that far.
21 Q Do you know what it was in 2002?
22 A I do not.
23 Q Would it be reasonable to conclude that the
24 citizen voting age population in Assembly
25 District 8 increased between 2000 and 2010?

1 A That's a reasonable hypothesis, yes.
2 Q And also it would be reasonable to conclude that
3 the Latino voting age population increased in
4 Assembly District 8 between 2000 and 2010?
5 A We know that as a fact because you can compare the
6 Latino voting age population in District 8 in 2002
7 as the result of redistricting based on the 2000
8 census numbers and compare that to both the 2010
9 population in the old districts and the 2011
10 population in the Act 43 districts.
11 Q So we know for a fact that the Latino voting age
12 population in Assembly District 8 increased
13 between 2000 and 2010 and we can postulate that
14 the citizen voting age population in the Latino
15 community also increased between 2000 and 2010; is
16 that right?
17 A That's correct.
18 Q Is there any way of determining whether the
19 citizen, not the absolute numbers, but whether the
20 citizen voting age population in the Latino
21 community in Assembly District 8 was greater or
22 lesser than the citizen voting age population in
23 the Latino community under the Act 43 Assembly
24 District 8?
25 MR. EARLE: Can you read that

1 question back to me.
2 (Question read)
3 Q I left out a year. Let's try that one again.
4 It's how late it is in the day. Let's try that
5 again. Is there any way of determining whether
6 the citizen voting age population in the Latino
7 community in 2000 in Assembly District 8 was
8 greater or lesser than the citizen voting age
9 population in the Latino community in current
10 Assembly District 8 under 43 in 2010?
11 A In theory you could because the census -- in the
12 enumeration the last time they asked a citizenship
13 question was on the long form, so you could come
14 up with a figure for 2000 combining the responses
15 for ethnicity and citizenship. For 2010 the
16 census no longer asked that question. There is no
17 longer a long form, so you would have to look at
18 what's called the American Community Survey which
19 was a -- the ACS encompasses a wide range of
20 things that are done in between censuses or censi.
21 But in particular there was a citizenship
22 component that was added in my understanding
23 specifically to obtain estimates of what the
24 citizen voting age population in various
25 communities would be in 2000 in preparation for

1 the next round of redistricting. So the data
2 exists in order to make that determination.
3 Q But you have not done that determination?
4 A I have not.
5 Q But we can hypothesis or postulate that the Latino
6 citizen voting age population in Assembly
7 District 8 in 2000 was lower than it is today?
8 MR. POLAND: Object to the form of
9 the question.
10 A It's possible. There are a number of variables
11 that we wouldn't know. I wouldn't be able to say
12 by how much because there was substantial inflow
13 of Latinos between 2000 and 2010. So I think it's
14 reasonable to suggest that the citizen voting age
15 population, Latino citizen voting age population,
16 had grown, but by how much I can't say.
17 Q Are you familiar with a gentleman by the name of
18 Pedro Colón?
19 A Yes.
20 Q How are you familiar with him?
21 A He was a member of the state legislature, the
22 assembly and the senate, for a number of years,
23 and now I believe he's a Milwaukee circuit court
24 judge.
25 Q When he was in the assembly, do you know what

1 assembly district he represented?
2 A I believe it was District 8.
3 Q Do you know when he was first elected?
4 A I'm not sure. I know he was in office in 2002,
5 but I don't know whether he was elected earlier
6 than that.
7 Q If I told you he was elected in 1998, would you
8 have any reason to disagree with that? I'm not
9 asking you to accept me as authority for the
10 source.
11 A I could check that easily enough by looking at the
12 Blue Book.
13 Q Yes. Let's assume that he was elected in 1998.
14 Would it be fair to say that Pedro Colón was the
15 candidate of choice of the Latino community in
16 Assembly District 8?
17 A That's most likely a true statement.
18 Q Would it be true in 2000 when he was reelected?
19 A I suppose, yes.
20 Q And in 2002 when he was reelected again?
21 A Yes.
22 Q And 2004?
23 A Presumably.
24 Q And 2006?
25 A I'm trying to remember when he was elected to the

1 senate. Yes. He was a long-time representative
2 of that area.
3 Q Do you know when Mr. Colón went to the senate who
4 represented Assembly District 8 after him?
5 A I would have to check. I know JoCasta Zamarripa
6 was elected in 2010. I don't know who was elected
7 in 2008.
8 MR. EARLE: Are you saying he was
9 elected to the senate?
10 MR. KELLY: Actually, I'm going
11 to -- I think we need to -- I'm not sure.
12 I'm not exactly sure when --
13 MR. EARLE: I would represent to
14 you that he was never elected to the senate.
15 MR. KELLY: Thank you.
16 Q After for whatever reason he had --
17 A I'm getting confused with all of these years.
18 Q That's fine. For whatever reason he had for
19 leaving the assembly, do you know who the
20 representative was after he left?
21 A I would have to check a Blue Book to be sure.
22 Q But you know at some point JoCasta Zamarripa was
23 elected for Assembly District 8?
24 A That's correct.
25 Q Would it be fair to conclude that Ms. Zamarripa is

1 the Latino community's candidate of choice in
2 Assembly District 8?
3 A Yes. But I also know that by 2010 the Latino
4 population had grown to the point where it was a
5 very high percentage of the voting age population
6 and may well have been the majority of the citizen
7 voting age population of Latinos in District 8.
8 Q Do you know if there was anyone but a Latino who
9 represented Assembly District 8 since 1998?
10 A I don't. But I know that on the common council,
11 the aldermanic districts, 8 and 12, which are
12 comprised most of that area, have with a couple of
13 interruptions are now and have for a while been
14 represented by white males.
15 Q Tell me again what the standard is we're looking
16 at here, an equal opportunity to elect a candidate
17 of choice?
18 A That's correct.
19 Q And our project right now is to determine whether
20 Assembly District 8 presents the Latino community
21 with an equal opportunity to elect a candidate of
22 their choice as configured today, right?
23 A That's correct.
24 MR. POLAND: Object to the form of
25 the question.

1 MR. EARLE: I'm going to join.
2 Q If the citizen voting age population of the Latino
3 community in Assembly District 8 as created by
4 Act 43 is higher than the citizen voting age
5 population in the Latino community in Assembly
6 District 8 in 2000, wouldn't given the fact that
7 the Latino community has been able to elect a
8 candidate of choice over the past 12 years and
9 more suggest that under Act 43 Assembly District 8
10 they would have an equal opportunity to elect a
11 candidate of their choice still?
12 A Actually --
13 MR. EARLE: I'm going to object to
14 the form of the question.
15 Q It was long, but let's go with it.
16 A I would say not necessarily.
17 Q Why not?
18 A Because under Act 43 I recall doing some
19 calculations that show that the voting age
20 population and citizen voting age population
21 actually dropped a little bit between what
22 Assembly District 8 looked like in 2010 and what
23 it looks like under Act 43. There were parts of
24 the district that were -- parts that were added to
25 the district that are outside the core of the

1 neighborhoods where the Latino population is
2 concentrated.
3 Q What is the citizen voting age population in the
4 Latino community in Assembly District 8 today?
5 A Let me see if I refer to that. According to my
6 data, which is listed in Exhibit 3 of my rebuttal
7 report, the old Assembly District 8, which is
8 based on the 2010 census and the 2006 to 2010
9 American Community Survey data -- the Latino
10 citizen voting age population was 52.4 percent and
11 Latino voting age population was 65.5 percent.
12 And under Act 43 I believe it's 60.5 percent
13 Latino voting age population.
14 Q What table are you looking at?
15 A Exhibit 3 of my rebuttal report. It doesn't have
16 page numbers on it.
17 Q That's fine. What would those numbers look like
18 if you used 2000 census data for Assembly
19 District 8 in 2002?
20 A I would have to check.
21 Q Do you have any reason -- let's try that one
22 again. The percentage Latino voting age
23 population using year 2000 census data to look at
24 this Assembly District 8 in 2002 would actually
25 show a lower percentage than 2010 census data

1 today, correct?
2 A It's probable, but I note that there are a lot of
3 moving pieces in these calculations because you
4 have to make adjustments based on estimates of who
5 is a citizen and who is not. I suspect there's
6 reason to believe that the concentrations would be
7 lower, but I am not prepared to make a claim about
8 how much lower.
9 Q On Page 11 of your rebuttal report you refer to
10 treating an effective majority Latino district.
11 What do you mean by an effective majority Latino
12 district?
13 A I mean a Latino district with a majority of
14 sufficient percentage which is not just a bare
15 majority but a majority plus a certain factor to
16 account for some of the turnout and other factors
17 that tend to reduce Latino turnout that's large
18 enough to permit under Act 43 an equal opportunity
19 to elect candidates of choice.
20 Q Is it your opinion that Assembly District 8 in
21 2002 was an effective majority Latino district?
22 A Without looking at the numbers -- if the only
23 piece of information I have to go on is the
24 ethnicity of the representative, that's one piece
25 of the puzzle, but it's not the only one. He may

MR. POLAND: I'm going to object to the form of the question.

A I would have to refer back to the spreadsheet I used to make those calculations to know conclusively how I came up with those numbers.

Q Would the minimum number of movements have simply been what you discussed before, you take how many are needed to add to a district to bring it up to population equality and then add the number of people who need to be shed from other districts that you need to get them down to population equality and just add them all up and that's the minimum number?

A Without looking at the spreadsheet I used to make those calculations I can't say.

Q In any event, you have not tried to draw a map for the state of Wisconsin that moves just the minimum number of people to get to population equality?

A I have not, but it's possible to look at some districts that remained mostly in place that only required a movement of a few hundred and that was accomplished by moving several thousand people in and several thousand people out. So you don't need to look at the entire plan and the characteristics of that entire plan to look at

individual districts and note that there was dramatic -- in some cases I identified almost 100 times more people moved in and out than were necessary. And these were not instances where new districts were created. These were instances where an existing district was substantially modified.

Q Could that have been effected by trying to follow other traditional redistricting principles?

A It's possible.

Q When you looked at those specific districts where you considered that movement to be especially high, did you do any analysis to see if that amount of movement had been caused by adherence to other traditional redistricting principles?

A Well, let me take a look at my --

MR. KELLY: Sorry, Peter. You can't put it away.

MR. EARLE: Not yet.

A Well, one of the things we can look at is if you look at Exhibit 2 which is population shifts in assembly districts. Now without looking at a map of Act 43, I can't say for certain what caused these effects. Let's take an area that lost population, say the Milwaukee area districts which

I believe are Assembly Districts 7 through 13. If you look at those districts, some of them had fairly large population shifts relative to the required shift such as the 7th district which had a population shift of 78,000 when it was only necessary to reduce it by 1,600 but others in that area had population shifts that were relatively modest. 5.4 times as large. 10 times as large. Similarly, if you look at the Dane County districts or the Madison area Dane County districts, which are essentially 76 through 81, you see a similar pattern where some of them have very large or somewhat large areas still lower than the overall average. The 79th assembly district only shifted five times as many people as were necessary for that particular district. The areas with the largest -- the 60th district, which only required a population shift of 10, wound up moving 35,000. I'm not entirely sure where that area is, but I suspect that reflects a significant alteration of the district. So I don't think it's necessarily true that the areas where districts were created and eliminated constitute the whole universe of districts with the largest population shifts relative to what was required. But, again,

without looking at a map -- I would have to look at a map and see where those districts are to identify whether they were in areas with large population growth. Based on the experience in Milwaukee and Madison, I suspect that there wouldn't be a general pattern.

Q Is it true that if a district that needs to pick up population to get to population equality is surrounded by districts that also need to pick up population to get to population equality that the affects of getting those to population equality will compound the affect of population shifts from district to district?

A I wouldn't necessarily say compound in a situation like that. If you had a set of districts forming an outer ring and then districts inside that -- the affects would be additive; that you needed to move people into one district and that means you need to move people from other areas to the districts that lost population and so there would be a ripple effect I guess is how I would prefer to.

Q Ripple effect is a good description. With each ripple the amount of population shift grows larger.

1 have run unopposed. He may have been regarded as
2 an especially effective representative. There are
3 other pieces of that that would be part of that.
4 Q When we're looking at the different pieces that
5 tell us about whether a district is an effective
6 majority Latino district, isn't one of the most
7 important pieces what that district has actually
8 been able to do?
9 MR. EARLE: Object to the form of
10 the question.
11 MR. POLAND: Join the objection.
12 A I would say it depends.
13 Q On?
14 A The nature of turnout, who voted, who ran. That's
15 an important piece of information, but it's not
16 the only piece of information that you would need
17 because if you --
18 Q Go ahead.
19 A If you change the configuration of the district,
20 you wind up with a different set of circumstances
21 such that if you added even a small percentage of
22 high turnout non-minority voters you could alter
23 the configuration of the district in a meaningful
24 sense that might make it more difficult for a
25 Latino or minority candidate to continue to get

1 elected.
2 Q Did that happen under Act 43?
3 A We don't know yet because there hasn't been an
4 election.
5 Q The project that we're engaged in right now is
6 necessarily forward looking, right? We have to
7 figure out what's likely to happen in this
8 district going forward, yes?
9 A That's part of what's going on, yes.
10 Q And isn't the best predictor of what will happen
11 in the future in the sense of whether a district
12 can continue presenting an equal opportunity to
13 vote for a candidate of choice what's occurred in
14 the past?
15 MR. EARLE: I'm going to object to
16 the form of the question.
17 MR. POLAND: Join the objection.
18 A I would say not necessarily. That's one piece of
19 information. Incumbents do lose. It increases
20 the probability, but it's not completely
21 determinative.
22 Q Just so I understand, the fact that Assembly
23 District 8 has elected an exclusively Latino
24 representative for the past 12 years is not a
25 sufficient indication for you that the Latino

1 community will have an equal opportunity to elect
2 a candidate of their choice going into the future
3 when the voting age Hispanic population is higher
4 today than it was in 2002?
5 MR. EARLE: I'm going to object to
6 the form of the question, foundation.
7 MR. KELLY: The whole nine yards.
8 MR. EARLE: Apples and oranges too.
9 MR. POLAND: Objection, form.
10 A Again, I would say that that's an important piece
11 of information, but it's not the only one. There
12 are other races in the area where Latino
13 candidates have lost and it's not as if all up and
14 down the ticket that the area has been uniformly
15 represented by Latino candidates.
16 Q And of course that's not what we're looking for,
17 right? We're just looking for an equal
18 opportunity to elect a candidate of choice.
19 MR. EARLE: Form.
20 A That's correct.
21 Q So the fact that there are non-Latinos elected
22 from the area encompassed by Assembly District 8
23 doesn't mean that the Latino community doesn't
24 have an equal opportunity to elect a candidate of
25 their choice?

1 A It depends on a number of other factors such as
2 the degree to which racially polarized voting
3 occurs, whether there was a Latino candidate
4 running who was defeated by a white candidate.
5 Again, I'm not trying to joust semantically with
6 you.
7 Q That's fine.
8 A But an assessment of an equal opportunity to elect
9 candidates of choice goes beyond simply looking at
10 who has won in that particular race. That's a key
11 piece, but you don't stop the analysis at that
12 point anymore than you would conclude that --
13 well, let me just stop there.
14 Q Is it possible that a non-Latino could be the
15 Latino community's candidate of choice?
16 A I would say given the degree of racially polarized
17 voting that my analysis found I would say it's
18 possible but at higher levels of aggregation it's
19 unlikely.
20 Q Professor Mayer, turning our attention briefly to
21 the question of the African American assembly
22 districts, am I correct in reading your report
23 that you are suggesting that the voting age
24 population of African Americans in the six
25 majority-minority districts should be no higher

1 than 55 percent?
2 A No.
3 Q What are you saying?
4 A I'm saying that that's one commonly used
5 threshold. There have been instances where that
6 number has been lower. My conclusion is that the
7 concentrations are higher than what they need to
8 be.
9 Q What should they be?
10 A Well, I haven't done a specific analysis to peg a
11 particular number, but I believe that the
12 concentrations of numbers in excess of 60 percent
13 are higher than they need to be to give African
14 American voters an opportunity to elect candidates
15 of choice and that by, for example, lowering the
16 concentrations in some of those districts and
17 making that 50.5 district somewhat higher you
18 would help protect that right.
19 Q Given your analysis of the six African American
20 districts, is there a large enough minority
21 population in that area to create a seventh
22 African American majority-minority district?
23 A I don't believe there is.
24 Q Professor Mayer, you submitted reports on behalf
25 of Voces de la Frontera in this case as well, did

1 you not?
2 A That's correct.
3 Q There was a main report and a rebuttal report?
4 A That's correct.
5 Q Did either the main or the rebuttal report
6 incorporate any information or analysis that was
7 not already included in your main and rebuttal
8 report for the Baldus plaintiffs that have been
9 marked as Exhibits 1017 and 1018?
10 A I don't believe so.
11 MR. EARLE: Can I put these away?
12 MR. KELLY: Yes.
13 (Exhibit No. 1021 marked for
14 identification)
15 Q Professor Mayer, you have been handed now what's
16 been marked 1021. Could you take a look at that
17 and tell me what that is.
18 A This is the initial expert report that I prepared
19 in the *Baumgart v. Wendelberger* litigation in
20 2001-2002.
21 Q When was the last time you had a chance to review
22 this?
23 A I have not reviewed the entire document. I have
24 browsed through it but, I have not had a chance to
25 review it beginning to end.

1 Q All right. Let's look at Page 26. This is part
2 of your compactness analysis.
3 A Yes.
4 Q There's some prefatorial material there and you
5 mention at the bottom of that page -- you say,
6 "What matters in the compactness analysis is the
7 average of different measures across old districts
8 in a plan and the degree to which different
9 measures tend to give the same general picture of
10 whether the districts are compact or non-compact."
11 Do you see still agree with that statement?
12 A Yes.
13 Q Did you perform an average of different measures
14 across old districts in the Act 43 plan as part of
15 your analysis that you have submitted in this
16 case?
17 A I believe so.
18 Q Where would I find that?
19 A I think it would be in one of the compactness
20 spreadsheets that I had prepared and offered or as
21 part of my December 14th report.
22 Q Do you know offhand what the file name would have
23 been?
24 A Something like assembly compactness and senate
25 compactness. It would be the same files we were

1 looking at earlier. Assembly 2011 compactness
2 report, senate compactness report.
3 Q Turning to Page 27, there's a list of nine
4 measures of compactness that you used in 2002.
5 A Yes.
6 Q Do you see that? Why did you not use those nine
7 this time?
8 A I imagine that part of it was a function of time.
9 Part of it was that I didn't anticipate the
10 compactness would be a major part of my analysis
11 and so I was trying to keep things simple.
12 (Exhibit No. 1022 marked for
13 identification)
14 Q Professor Mayer, you have been handed what's been
15 marked as Exhibit 1022. Could you look at that
16 and tell me if you have seen it before.
17 A This is the second amended complaint and the text
18 of Act 43. Just let me take a quick look at
19 Exhibit A which I don't know that I've seen
20 before. Exhibit A is a population of the states
21 based on the 2010 census and the apportionment of
22 house members and the change from 2000.
23 Q Have you seen this before?
24 A I have seen the complaint. I have not seen the
25 apportionment table, and, to be honest, I have not

1 read through the full text of Act 43.
2 Q I'm grateful to hear that.
3 A I get the gist of it from a sampling.
4 Q I have no desire to question you about your
5 understanding of Act 43's actual terms. All
6 right. Let me ask you first -- I may have asked
7 you this earlier. I apologize if I did not. When
8 we were talking about the number of people moved
9 from one district to another under Act 43 -- I may
10 have asked you, and, if so, then I'll apologize.
11 Is it possible to draw a map that -- I'll just
12 start over. Let's look at Page 15 of
13 Exhibit 1022.
14 MR. POLAND: Which page, Dan?
15 MR. KELLY: 15.
16 Q In Subparagraph B in the second sentence it says
17 in part, "Based on the 2010 census 323,026
18 individuals needed to move assembly districts."
19 Do you see that?
20 A Yes.
21 Q Is it possible to draw a map for the state of
22 Wisconsin that moves only 323,026 individuals to
23 equalize population?
24 A There's a short and a long answer to that
25 question. The short answer is probably.

1 Q How would you do that? Is that the longer answer?
2 A No.
3 Q Tell me what the longer answer is, and then I'll
4 come back.
5 A The longer answer would be probably not without
6 sacrificing some other important redistricting
7 principles. So if your only concern was
8 equalizing population and you didn't care about
9 any of the other principles, you could likely do
10 it this way. You may not be able to get it
11 exactly this. The way that you derive that figure
12 is that you look at the population of the existing
13 districts and the difference between those
14 populations and the ideal population for each
15 district would have a difference. You add that
16 all up and you will get 323,000 or so. It is
17 theoretically possible to draw a new map that
18 moves only as many people as you need to and no
19 more and no less, but that would come at the cost
20 of giving up something along those other
21 dimensions, whether it's compactness -- not
22 contiguity. So the other traditional
23 redistricting principles that you would -- in
24 order to hit that target you would almost
25 certainly be giving up something on those

1 dimensions.
2 Q Wouldn't it also be true that in order to draw a
3 map that was only that number of people that the
4 districts that need new population are adjacent
5 directly to districts that need to shed that
6 amount of population?
7 A Well, these numbers differ from what I have, and I
8 noted that there was another instance in which my
9 calculation of core district retention differed
10 from what is in this complaint because in the
11 complaint when a new district was created in here
12 that was counted as having a core retention of
13 zero. That's not technically -- the way that I
14 did it it was not zero. It was some fraction of
15 the largest area. I suspect that may be what
16 accounts for some of the difference between my
17 number, which was 500,000 some, and this number.
18 I don't know. I'm not recalling the spreadsheet
19 that was used to generate these estimates.
20 Q Let's address this on a theoretical level first.
21 We can look at a map in the districts and say
22 well, we know that these districts are
23 underpopulated by X amount and these are
24 overpopulated by X amount so we know that that
25 number at a very minimum need to move, right?

1 A Yes.
2 Q So then to draw a map that moves no more than the
3 sum of those two figures the districts that need
4 to pick up population need to be directly adjacent
5 to districts that need to shed that amount of
6 population, correct?
7 A I'm not sure that's correct. It depends on how
8 you conceive of the circumstances in which
9 population needs to move. As a matter of
10 practicality, in some areas you need to create new
11 districts to accommodate population growth, and,
12 when that occurs, you necessarily have to move
13 what amounts to an ideal population into that
14 district, 57,444 172 something for senate
15 districts. But, again, without actually doing the
16 analysis I can't say whether it depends on the
17 districts being essentially contiguous.
18 Q Have you provided any opinion in this case about
19 the difference between the number of people that
20 were moved versus the minimum number of people
21 that could have been moved?
22 A I did.
23 Q How do you know that you could draw a map in the
24 state of Wisconsin that would move only that
25 minimum number of people?

A The total population shift would grow larger, but eventually you would reach a point where you had reached another equilibrium where you didn't have to make additional changes.

MR. KELLY: We need to switch a DVD.

(Recess)

Q Professor Mayer, let's turn back to the second amended complaint that's been marked Exhibit 1022. Would you go with me to Page 17. Do you see where it says in (d), "The new legislative districts do not preserve communities of interest and instead needlessly divide cities and other local government units." Do you see that?

A Yes.

Q And there follows a number of examples. The first one refers to the Clark Square neighborhood in Milwaukee. Do you see that?

A Yes.

Q Are you providing any opinion on whether or not the Clark Square neighborhood should have been divided?

A I believe I included information about how dividing the northern portions of District 8 in a line along 16th Avenue split essentially the

central business district in that area.

Q And does your report provide any reason why we ought to be concerned that that happened?

A I would have to double-check, but my recollection is that by splitting essentially a key part of the Latino community that complicates the task of trying to put together coalitions of voters to form majorities.

Q On Page 18 there's a reference to the Fox Valley city of Appleton area. Do you see that?

A I do.

Q Does your report contain any opinion on whether it was a good or bad thing to split that area?

A Not in that instance.

Q Point (v) refers to three assembly districts in Milwaukee. Are you providing any opinion with respect to those three assembly districts?

A Not at this point.

Q Paragraph E at the bottom of 18 and continuing into 19 refers to shifting populations of Native American communities. Are you providing any opinion on those issues?

A I did not in my report or rebuttal report.

MR. KELLY: I'm sorry that was caught on tape.

THE WITNESS: When I do it, it's visually for all to see for all eternity.

MR. EARLE: People reading the transcript won't know what we're talking about.

(Exhibit No. 1023 marked for identification)

Q Professor Mayer, you have been handed what's been marked Exhibit 1023. Can you take a look at that and tell me if you have seen this before.

A I have.

Q What is it?

A I believe this is the notice of the deposition and the subpoena ordering me to produce documents.

Q Thank you, by the way, for coming here in response to that. Can you turn to the last page that's marked Exhibit A.

MR. POLAND: We might have had some problems if he hadn't shown up, right?

MR. KELLY: Some might say.

Q Did you review Exhibit A before you came here today?

A I did.

Q Did you look for documents responsive to each of the nine paragraphs listed on Exhibit A?

A I did.

Q Would all of those responsive documents have been provided at the beginning of the deposition today?

A Yes, with the exception of published materials that I cited in my expert report or rebuttal which are publicly available.

Q Okay.

MR. KELLY: Do we have a copy of this that we can mark?

MR. POLAND: Sure. I've got extras.

A And there are some additional files that I produced this morning, the handwritten file and the two data files that I E-mailed to counsel last night.

MR. POLAND: Just for the record, the two data files that were E-mailed last night area actually on the CD. We caught those in time to get them on the DVD.

(Exhibit No. 1024 marked for identification)

Q You have in front of you what's been marked Exhibit 1024. It appears to be a CD or DVD. Does this contain the materials that are responsive to the nine paragraphs on Exhibit A as attached to

1 Exhibit 1023 except for the physical documents
2 that you gave me in addition to this?
3 A On the assumption that this includes all of the
4 material that I provided, yes.
5 Q Okay.
6 A It's a little hard to read.
7 Q Yes. Can you take a look back at Exhibit 1020
8 with me. You remember seeing that earlier today?
9 A I do.
10 Q So the combination of Exhibit 1024 and Exhibit
11 1020, that constitutes the sum total of
12 information responsive to Exhibit A?
13 A Yes.
14 MR. POLAND: Dan, I should put in
15 there that the qualification there is as
16 limited by Rule 26. So, in other words, this
17 is a discussion we have had on an ongoing
18 basis about the carveouts under the new
19 Rule 26.
20 MR. KELLY: Yes.
21 (Exhibit No. 1025 marked for
22 identification)
23 MR. KELLY: We are closing in on
24 the end I say with great trepidation.
25 MR. POLAND: Is this just the

1 printout that I had?
2 MR. KELLY: Yes.
3 MR. EARLE: You marked this
4 separately?
5 MR. KELLY: Yes.
6 Q Professor Mayer, you have been handed what's been
7 marked Exhibit 1025. Can you take a look at that
8 and tell me what that is.
9 A This is a table that displays the results of an EI
10 or ecological inference run that was performed on
11 the wards and portions of wards that were created
12 in 2002 that existed in what is now Act 43
13 Districts 8 and 9. My goal in performing this
14 analysis was to do a racially polarized voting
15 analysis in the area that is now contained within
16 the area of Act 43 Assembly Districts 8 and 9.
17 Much of the first page is an ecological inference
18 analysis of turnout, and the rest of it is a
19 racially polarized voting analysis that estimates
20 the percentage of Latino and white voters who
21 voted for respectively the Latino -- I suppose the
22 way I've described it is that I also show the
23 percentage of white voters who supported the
24 Latino candidate, and you would get the percentage
25 of white voters who supported the white candidate

1 by subtracting those estimates by one. All of the
2 numbers in brackets are the -- I believe it's the
3 95 percent confidence interval which is a
4 reflection of the precision of the point estimate
5 of the quantities of interest. Where it says
6 Kings, that's the EI model.
7 Q When did you prepare this?
8 A This was actually prepared by a graduate assistant
9 that I used to conduct the analysis under my
10 direction. I asked him to perform this analysis
11 last Sunday, and he provided this table I believe
12 either Monday or Tuesday.
13 Q Have you had an opportunity to check his work for
14 accuracy?
15 A Not on this table, but I have reviewed the code
16 and data that he used and have every reason to
17 believe that he did this accurately. The code
18 that he used and the data are both on the disk.
19 Q Is there a way we will be able to identify the
20 code and the data that was used to create this
21 table?
22 A I would say that there is a subdirectory on this
23 disk called Voting Rights or Voting Rights
24 Analysis or Voting Rights Files Subdirectory. The
25 programming and data analysis was actually

1 conducted in an open source statistical package
2 called R which is freely available. Basically
3 anybody with the computing power can run the
4 analysis. The code is in a number of different
5 files that have the file extension .r which will
6 bring up the actual code that's written into the
7 language that looks very much like a language
8 called C or C+. The data is in comma separated
9 values or .csv files which is what you read into R
10 in order to run the analysis and also what R
11 outputs. So anything that has the .csv
12 designation is either a data file or an output
13 file.
14 Q Looking at the first page, there seems to be three
15 groupings of analyses and the distinguishing
16 feature, at least as far as labeling is concerned
17 is -- it appears to be on the first one 8 and 9
18 Together VAP, on the second one 8 and 9 Together
19 LVAP.
20 A That's correct.
21 Q And then the third one 8 and 9 Together LVAP
22 Citizenship Adjusted?
23 A That's correct.
24 Q I assume this is covering different populations or
25 subsets of populations?

1 A Estimates of different subsets of populations.
2 Q Let's start with the first one, 8 and 9 Together
3 VAP. What population is that encompassing?
4 A That is the total voting age population of
5 Districts 8 and 9.
6 Q And the second one, would that be the total Latino
7 voting age population in Districts 8 and 9?
8 A That's correct.
9 Q And then the third one would be the total citizen
10 Latino voting age population in Districts 8 and 9?
11 A That's correct.
12 Q On the second page, the last column to the right,
13 there's a column headed N of Wards. I assume
14 that's Number of Wards?
15 A Correct.
16 Q What does that tell me?
17 A That tells you the number of wards for which we
18 have data for that particular race in that row.
19 So, for example, the county supervisor in
20 District 12 occurred in only a subset of the wards
21 that are in Act 43. Again, I want to make it
22 clear that I'm talking about the old wards so we
23 could easily get access to the election
24 information as opposed to the races of state
25 superintendent, circuit court which were either

1 statewide or countywide races. Again, we're
2 looking at the voting behavior within the area
3 comprised of Act 43, 8 and 9 and that is 61 wards
4 and then the 12th aldermanic district consists of
5 all or part of 21 wards that are in that area.
6 Q I will leave the balance of that report to the
7 statisticians who are significantly more qualified
8 than I to opine.
9 MR. KELLY: If I could have maybe
10 five minutes to see if I need anything else.
11 MR. KASPER: And I will have just a
12 couple clarification.
13 (Recess)
14 Q Professor Mayer, thank you for your patience with
15 me today. Can you tell me all of the expert
16 opinions that you have as of this date, have they
17 ben encapsulated in the reports that you have
18 filed?
19 A There are a number of things that I only recently
20 learned which could play into opinions that I
21 express.
22 Q What are those things?
23 A One of them is this analysis that I did in
24 response to the rebuttal report of
25 Bernard Grofman, Dr. Grofman. That was the first

1 time I had seen anything that he had produced.
2 The second is some documents that I have seen and
3 a deposition that I attended on Wednesday having
4 to do with some what you might call anomalies
5 between the geo location of certain number of
6 voters and their assignment to congressional
7 legislative districts under the statewide voter
8 registration system. I haven't completed my
9 analysis because we have asked for documents that
10 I have not yet seen. So I may have an opinion on
11 the population movement and population equality in
12 congressional districts.
13 Q Aside from the issue with respect to the
14 anomalies, are you planning on updating or
15 submitting an additional expert report in this
16 case?
17 A I don't know.
18 Q When might we know that?
19 A I suppose it would depend on subsequent
20 depositions. If I thought that there was
21 something that I felt important to respond to, an
22 extension of work that I had done, but that would
23 be the circumstance in which I would see the need
24 to do that.
25 Q And if a court were to allow you to submit an

1 additional report on issues other than the
2 anomalies, would you agree to return here so that
3 I can ask you some more questions about those
4 opinions?
5 A Yes.
6 MR. KELLY: Thank you. I have
7 nothing further.
8 THE WITNESS: You're welcome.
9 Thank you.
10
11 EXAMINATION
12 By Mr. Kasper:
13 Q Professor Mayer, thank you for being here today.
14 I know it's been a long day for you even more than
15 the rest of us. I just have a few questions
16 mostly by way of clarification on stuff that you
17 have already covered.
18 It you could turn to your initial report
19 which I believe is Exhibit 1017 and Page 6 of that
20 report. Have you got it?
21 A Yes.
22 Q Earlier I know you had the large book in front of
23 you with among other things the two different
24 constitutions which I will not, thankfully, make
25 you refer to again now. But as you can see, the

1 last sentence on the bottom of Page 6 after going
2 through the constitutional requirements that we
3 discussed it says, "In addition to the statutory
4 and constitutional requirement, states are bound
5 to comply with traditional redistricting
6 principles which include," and then on Page 7 it
7 begins, "Respect for existing political
8 subdivisions" and goes on through numbers one
9 through four. Do you see that?
10 A Yes.
11 Q Is my understanding correct that those factors are
12 those whose consideration was required by federal
13 courts in decisions that you relied on?
14 A I don't know that I would say required, but they
15 can be factors in a court invalidating a plan if
16 they judge that the fidelity of these principles
17 is insufficient. So there may not be a specific
18 statutory or constitutional provision that
19 applies, but the traditional redistricting
20 principles go beyond that as courts have fleshed
21 out at least in terms of the federal constitution
22 constitutional requirements generally stem from
23 equal protection and 14th Amendment issues. But
24 the others are things that have been developed
25 over time as courts have continued to look at

1 these issues since the 1960s.
2 Q So is there a requirement that anyone who is
3 drawing a map at a legislature's behest needs to
4 require each of these factors as you call them?
5 It's more of the after the fact these are what the
6 court has considered in the cases you're familiar
7 with?
8 A I would consider it very poor practice for someone
9 to draw a map without keeping these things in
10 mind.
11 Q And do you remember the names of those decisions
12 in federal courts for these principles
13 specifically?
14 A I don't think I could rattle them off the top of
15 my head.
16 Q I was just impressed because on some other points
17 you did seem to have a fairly good handle on some
18 cases you did rely on. Fair enough. Is it your
19 understanding that the cases you did rely on,
20 regardless of whether you remember the specific
21 parties' names here, that whether it be these four
22 or other ones you have mentioned in other contexts
23 today there's no other principles that you're
24 familiar with that would be advisable or required
25 for someone drawing a map to consider? You did

1 mention them in other contexts. I'm including
2 anything that you discussed with Mr. Kelly today.
3 A Yes. Some of it -- if we're not talking about
4 congressional districts, there are some -- well,
5 actually in the case of congressional districts
6 there are some procedural issues that are required
7 in different state contexts. I mentioned Iowa for
8 example.
9 Q Sure.
10 A Some states require the districts to be drawn to
11 achieve a certain level of competition which is
12 not the case here.
13 Q By here you mean it's not required in Wisconsin?
14 A That's correct. So I don't maintain that this is
15 an exclusive list. There may well be others. In
16 fact there are others that if I thought about hard
17 enough I could --
18 Q Or maybe if you had the decisions in front of you
19 you would be able to identify them?
20 A Yes.
21 Q And then in a similar vein, can you just turn to
22 the next page. I'm sorry. It's Page 8 of the
23 same report. I guess it's the second full
24 paragraph thereof. Do you see the phrase that
25 begins, "The process obtaining constitutional

1 equality must occur while recognizing the
2 importance of minimizing the number of dramatic
3 changes in district configurations"?
4 A Yes. I see that.
5 Q And just to be clear, your understanding of the
6 prescription as you understand it comes from those
7 same federal court cases that you may not remember
8 specifically here but you relied upon generally?
9 A Well, there are statutory provisions as well. If
10 you devised districts, whether congressional or
11 legislative, that weren't contiguous, I would
12 imagine that would be overturned on that basis.
13 Q Is there a statutory requirement that
14 congressional districts are drawn to be contiguous
15 in Wisconsin?
16 A I would have to check. I believe there is, but
17 I'm not entirely certain whether it's a
18 constitutional requirement or if there may be a
19 federal statute that requires that.
20 Q But as you sit here you cannot recall a specific
21 federal or state statute that would be applicable
22 to Wisconsin redistricting for that purpose?
23 A Not off the top of my head, no.
24 Q Understood. If you look at the same page, Page 8,
25 Footnote 1, this is just something that is

1 particular to congressional districts. Do you see
2 where it says, "Congressional districts must be
3 nearly exactly equal in population"?
4 A Yes.
5 Q Can you tell me where you gleaned that requirement
6 from.
7 A Again, I can't cite the specific decisions, but
8 there are a number of instances where
9 congressional plans have been invalidated on the
10 basis of very, very small population deviations,
11 far less than 1 percent, and the most common
12 practice among congressional districts, as there
13 was in the case here, is to drive those population
14 deviations down to either zero or as close to zero
15 as you can get. I think the total deviation in
16 the eight congressional districts here was
17 actually one person. If you have population
18 that's not equally divisible by eight, you have no
19 choice but to do that.
20 Q Sure. Just one final point I just want to get
21 your clarification on. Can you go up on that same
22 page, the first full paragraph, and it's actually
23 after assembly, but it's talking about --
24 A What page are we on?
25 Q Page 8 of the same report. The first full

1 paragraph.
2 A Okay.
3 Q It starts with, "Without some degree of stability
4 voters who may have established relationships with
5 their legislators will be forced to begin anew
6 with a different slate of legislators." Do you
7 see that?
8 A Yes.
9 Q And is that something that would go in that same
10 vein I think as you discussed it here but it's
11 something that would be advisable if not required
12 for someone drawing a map to consider?
13 A I would regard that as a traditional redistricting
14 principle having to do with -- the whole purpose
15 of reapportionment in redistricting is to serve
16 the representational purpose of legislatures and
17 the equal population requirement is designed to
18 ensure that voters in different districts within a
19 single state have the -- their vote carries the
20 same weight. But a broader purpose is to protect
21 the integrity of that relationship, that
22 representational relationship, which is where the
23 traditional redistricting principle of core
24 population retention comes into play. If you
25 radically reconfigure districts so that everybody

1 is moved around every time and there's no
2 stability, voters do have an interest in
3 maintaining relationships with their elected
4 officials even though that doesn't translate into
5 an interest in elected officials to having a
6 particular right to a seat or to represent a
7 certain area. But that is a broader philosophical
8 question.
9 Q When you say that relationship, you mean the
10 relationship between an individual voter with an
11 individual legislator for example?
12 A Or groups of voters with a legislator. It doesn't
13 necessarily implicate -- well, it actually does
14 implicate the relationship between a single voter
15 and a representative, but, in terms of the
16 collective relationship, that's important as well.
17 Q And so it would be fair to say that your
18 understanding is that at least for some voters
19 there is value in having the same individual
20 continue to represent them based on that existing
21 relationship?
22 A I would say that there is some interest in
23 continuity to the extent that it doesn't conflict
24 with other interests. Whether that's the same
25 individual depends on the decision made at the

1 subsequent election, and that's something that is
2 left entirely to the voters.
3 Q And in the cases you have reviewed from federal
4 courts talking about what considerations are
5 proper if not required when drawing legislative or
6 congressional maps, does that then mean that it's
7 proper to consider that and with the end of mind
8 being to facilitate that relationship on a going
9 forward basis?
10 A I would respond there are many ways to do that.
11 It would depend on what specific element of that
12 that you're speaking of.
13 Q It would be among the factors you would consider?
14 A Again, I would need to know more specifically how
15 you conceptualize that.
16 Q For example, are you familiar with any cases where
17 it was recognized as proper to have the goal of
18 not putting two incumbents in one district so that
19 necessarily one incumbent's relationship with the
20 voters and the voters' relationship with that
21 legislator would necessarily be broken?
22 A I know of states where that's not a consideration
23 that can be taken into consideration. I'm not
24 aware of any court decisions that speak of
25 incumbent pairings as a violation of any

1 particular principle.
2 Q Would those considerations, though, be among the
3 permissible or traditional principles as you
4 understand them?
5 A I would say that other than -- I'm just thinking
6 of how best to phrase this. I'm not aware of any
7 specific prohibition against, a general
8 prohibition, against pairing incumbents although I
9 can conceive of a situation where an excessive
10 extremely large number of pairings could be one
11 factor that could go into a decision that a
12 particular map might not be valid. But it would
13 take an extreme number.
14 Q Would it be legitimate for someone drawing a map
15 to consider that possibility of trying not to put
16 two incumbents together in a district in one case
17 or in several cases across the map and in doing so
18 lessen the efficacy of other traditional
19 redistricting principles that you have laid out
20 today?
21 MR. POLAND: Object to the form of
22 the question.
23 A It depends on how that was done and what other
24 principles were at stake. If you drew a district
25 that was irregularly shaped and had a little

1 tendril that went out 150 miles to pick up the
2 residence of an incumbent -- actually, in the case
3 of congressional districts I don't think it
4 matters because the only constitutional
5 requirement is that they be a resident of the
6 state. But as a practical political matter the
7 expectation is that the people, candidates, will
8 live in the district that they are running in.
9 I'm not aware of any specific prohibition one way
10 or the other that says you can't do it or that
11 there's no limit on what you can do.
12 MR. KASPER: No further questions.
13 MR. EARLE: I have nothing.
14 MR. POLAND: I have just a couple
15 questions.
16
17 EXAMINATION
18 By Mr. Poland:
19 Q Dr. Mayer, if you could keep your report out in
20 front of you, please. On Page 6 of your report,
21 this is Exhibit 1017, in the third bullet point
22 you state, and I believe Mr. Kelly asked you some
23 questions about this before -- you state, "It
24 appears that" -- it says confessional. Is that
25 supposed to be congressional?

1 A Congressional.
2 Q Interesting slip of the keyboard there, right?
3 "It appears that the congressional redistricting
4 plan has the same flaws as the legislative plan,
5 with respect to the arbitrary movement of more
6 people than was necessary to achieve population
7 equality and failure to adhere to the traditional
8 redistricting principles. Absent explanation,
9 there is no apparent apolitical reason for the
10 changes made." Do you see that opinion?
11 A Yes.
12 Q Has anyone shown you or have you seen any
13 explanation for the movement of more people than
14 necessary to achieve population equality in the
15 congressional districts?
16 A No, I have not.
17 Q Does that opinion still stand?
18 A Yes.
19 Q You were asked before also by Mr. Kelly some
20 questions with respect to the African American
21 districts in Milwaukee. Do you recall those
22 questions?
23 A I do.
24 Q Have you conducted any analysis or been asked to
25 conduct any analysis as to whether there is

1 sufficient African American population to create a
2 seventh assembly district, African American
3 assembly district?
4 A Actually, not a comprehensive one. My original
5 assessment was based on a quick look at the data
6 about how many African American voters or what the
7 number of the voting age population that could be
8 reallocated or freed up if you lowered the
9 percentage voting age population to 55 percent. I
10 believe I stated that in that instance -- the last
11 paragraph of my report is that if you reduce the
12 African American voting age population to
13 55 percent in the 10th, 11th, 16th, 17th and 18th,
14 you would free up roughly 13,000 African American
15 voters. I actually don't know whether that's
16 sufficient to -- I haven't looked about whether
17 that would be a sufficient population to
18 constitute a majority nor have I looked at
19 alternate configurations.
20 Q So it might be possible. It might not be
21 possible. You just don't have an opinion as you
22 sit here today.
23 A As I look at the data that I actually used, that's
24 correct.
25 Q Dr. Mayer, you also testified I believe in

1 response to questions that either Mr. Kelly or --
2 I think it was Mr. Kelly had asked you. You
3 mentioned that you had recently seen some data
4 regarding so-called anomalies in redistricting
5 data, correct?
6 A Correct.
7 Q And that's a process as you understand that's part
8 of the discovery process that's ongoing; is that
9 correct?
10 A As I understand it, yes.
11 Q From what you have seen so far, is it possible
12 that there is material that could be discovered
13 that might cause you to formulate new opinions
14 with respect to congressional districts?
15 A That's correct.
16 MR. POLAND: I have no further
17 questions.
18 MR. KELLY: Nor do I.
19 Peter?
20 MR. EARLE: Nor do I.
21 (Adjourning at 6:33)
22
23
24
25

1 In witness whereof I have hereunto set my
2 hand and affixed my notarial seal this 29th day of
3 January 2012.
4
5 Notary Public, State of Wisconsin
6 My commission expires
7 June 23, 2013
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1 STATE OF WISCONSIN)
) ss.
2 COUNTY OF DANE)

3 I, SUSAN C. MILLEVILLE, a Court Reporter
4 and Notary Public duly commissioned and qualified in
5 and for the State of Wisconsin, do hereby certify
6 that pursuant to notice and subpoena, there came
7 before me on the 27th day of January 2012, at 9:17 in
8 the forenoon, at Godfrey & Kahn, S.C., Attorneys at
9 Law, One East Main Street, the City of Madison,
10 County of Dane, and State of Wisconsin, the following
11 named person, to wit: KENNETH R. MAYER, Ph.D., who
12 was by me duly sworn to testify to the truth and
13 nothing but the truth of his knowledge touching and
14 concerning the matters in controversy in this cause;
15 that he was thereupon carefully examined upon his
16 oath and his examination reduced to typewriting with
17 computer-aided transcription; that the deposition is
18 a true record of the testimony given by the witness.
19 I further certify that I am neither
20 attorney or counsel for, nor related to or employed
21 by any of the parties to the action in which this
22 deposition is taken and further that I am not a
23 relative or employee of any attorney or counsel
24 employed by the parties hereto or financially
25 interested in the action.

'

'90s [1] - 84:7

0

0 [10] - 30:21, 30:25, 31:4, 37:2, 37:10, 40:19, 40:21, 40:23, 143:20, 143:23

1

1 [11] - 30:21, 31:1, 31:4, 37:2, 37:10, 40:19, 40:21, 40:23, 134:20, 220:25, 221:11
1,600 [1] - 203:6
1.75 [1] - 134:10
10 [12] - 9:17, 10:2, 10:10, 10:14, 10:20, 11:3, 11:7, 11:9, 11:13, 141:19, 203:8, 203:18
10,000 [1] - 119:12
100 [11] - 23:10, 29:3, 29:11, 37:5, 40:23, 43:8, 141:2, 142:9, 176:24, 202:2
1000 [1] - 5:6
1016 [2] - 3:11, 127:7
1017 [14] - 3:12, 127:7, 127:10, 128:7, 129:10, 129:12, 129:17, 131:2, 133:20, 135:23, 149:16, 194:9, 216:19, 226:21
1018 [6] - 3:13, 128:22, 128:25, 159:19, 176:15, 194:9
1019 [7] - 3:14, 135:12, 135:15, 136:1, 141:7, 145:20, 150:14
1020 [6] - 3:15, 143:7, 143:9, 145:18, 209:7, 209:11
1021 [3] - 3:16, 194:13, 194:16
1022 [5] - 3:17, 196:12, 196:15, 197:13, 205:9
1023 [4] - 3:18, 207:6, 207:9, 209:1
1024 [4] - 3:19, 208:20, 208:23, 209:10
1025 [3] - 3:21, 209:21, 210:7
10th [1] - 228:13
11 [3] - 131:2, 133:19, 188:9
11-CV-1011 [1] - 2:11
11-CV-562 [1] - 1:12
11th [1] - 228:13
12 [7] - 110:17, 141:7, 145:9, 185:11, 186:8, 190:24, 213:20
127 [1] - 3:12
129 [1] - 3:13
12:00 [1] - 91:19
12:15 [1] - 91:19
12th [3] - 41:20, 49:15, 214:4
13 [7] - 3:13, 145:11, 146:13, 149:19, 149:24, 150:14, 203:1
13,000 [1] - 228:14
135 [1] - 3:14
13th [1] - 129:2
14 [5] - 3:12, 127:12, 149:16, 149:20, 149:22
143 [1] - 3:15
14th [4] - 14:16, 158:23, 195:21, 217:23
15 [4] - 118:13, 141:20, 197:12, 197:15
15,000 [1] - 118:13
150 [1] - 226:1
16 [1] - 77:6
16th [2] - 205:25, 228:13
17 [2] - 5:3, 205:10
172 [1] - 200:14
173,000 [2] - 177:21, 177:24
174,000 [1] - 177:3
177,000 [2] - 160:16, 160:18
17th [1] - 228:13
18 [4] - 63:7, 77:6, 206:9, 206:19
18-year-olds [1] - 63:16
18th [1] - 228:13
19 [1] - 206:20
194 [1] - 3:16
1950 [1] - 103:20
1950s [1] - 98:25
1959 [1] - 99:2
196 [1] - 3:17
1960s [1] - 218:1
1980s [1] - 148:25
1982 [6] - 17:8, 168:8, 168:10, 168:19, 168:25, 169:21
1983 [7] - 124:21, 153:11, 169:15, 176:19, 177:14, 178:3, 178:8
1992 [6] - 160:12, 160:15, 160:18, 160:25, 161:2, 167:3, 167:14, 167:19
1998 [4] - 179:16, 183:7, 183:13, 185:9
19th [1] - 94:6
1st [1] - 158:22

2

2 [7] - 15:13, 16:23, 18:20, 65:14, 65:17, 65:21, 202:21
20 [3] - 77:24, 79:1, 140:15
2000 [18] - 51:23, 149:1, 179:19, 179:25, 180:4, 180:7, 180:13, 180:15, 181:7, 181:14, 181:25, 182:7, 182:13, 183:18, 186:6, 187:18, 187:23, 196:22
2000s [1] - 84:8
2001-2002 [2] - 130:19, 194:20
2002 [19] - 6:18, 130:23, 160:11, 160:17, 160:23, 164:15, 165:24, 166:8, 169:12, 179:21, 180:6, 183:4, 183:20, 187:19, 187:24, 188:21, 191:4, 196:4, 210:12
2004 [1] - 183:22
2006 [2] - 183:24, 187:8
2008 [7] - 157:16, 171:18, 173:21, 173:23, 175:8, 175:22, 184:7
2009 [1] - 6:10
2010 [25] - 51:18, 51:21, 89:9, 110:25, 171:18, 173:15, 173:16, 173:17, 175:9, 179:25, 180:4, 180:8, 180:13, 180:15, 181:10, 181:15, 182:13, 184:6, 185:3, 186:22, 187:8, 187:25, 196:21, 197:17
2011 [11] - 3:12, 127:12, 152:5, 161:9, 171:7, 171:18, 172:11, 173:12, 173:20, 180:9, 196:1
2012 [16] - 1:20, 3:13, 3:14, 4:13, 92:21, 136:23, 157:18, 171:2, 171:11, 171:19, 172:9, 172:21, 172:23, 174:2, 230:7, 231:3
2013 [2] - 172:21, 231:7
2014 [2] - 157:19, 171:8
207 [1] - 3:18
208 [1] - 3:20
20th [1] - 161:9
21 [1] - 214:5
210 [1] - 3:21
2100 [1] - 5:7
216 [1] - 3:5
21st [1] - 161:9
226 [1] - 3:6
23 [1] - 231:7
24 [1] - 63:7
25 [1] - 23:11
250,000 [1] - 167:4
257,000 [2] - 160:19, 167:5
26 [3] - 195:1, 209:16, 209:19
262 [1] - 5:15
27 [2] - 1:20, 196:3
27th [2] - 4:13, 230:7
299,000 [2] - 159:7, 170:4
29th [1] - 231:2

3

3 [3] - 141:4, 187:6, 187:15
3,500 [1] - 111:4
3.5 [4] - 131:10, 131:16, 133:21, 134:23
30 [1] - 62:5
30.9 [1] - 146:17
300 [1] - 4:23
31 [1] - 146:17
323,000 [1] - 198:16
323,026 [2] - 197:17, 197:22
33 [1] - 175:22
34 [1] - 175:22
35 [1] - 23:11
35,000 [1] - 203:19
350,000 [1] - 165:6

4

4 [2] - 152:8, 160:1
4,000 [3] - 111:4, 121:3, 121:4
4,300 [1] - 121:3
417 [1] - 5:14
43 [31] - 24:12, 33:14, 52:10, 99:10, 101:22, 107:25, 121:7, 126:8, 128:17, 147:21, 165:8, 167:18, 180:10, 180:23, 181:10, 186:4, 186:9, 186:18, 186:23, 187:12, 188:18, 190:2, 195:14, 196:18, 197:1, 197:9, 202:23, 210:12, 210:16, 213:21, 214:3
43's [2] - 167:11, 197:5
44 [7] - 121:7, 128:8, 128:14, 128:18, 129:3, 129:6, 129:12
447-2199 [1] - 5:15

5

5 [7] - 3:4, 14:24, 15:11, 65:13, 65:16, 65:18, 160:20
5.4 [1] - 203:8
50 [2] - 30:24
50.5 [1] - 193:17
500 [1] - 4:20
500,000 [1] - 199:17
52.4 [1] - 187:10
53 [1] - 146:14
53.5 [1] - 134:21
53021 [1] - 5:14
53202 [3] - 4:24, 5:7, 5:10
53703 [2] - 4:20, 5:3
55 [3] - 193:1, 228:9, 228:13
55.0 [1] - 134:22
57 [1] - 145:9

57,444 [1] - 200:14
57.6 [1] - 144:19
59.1 [1] - 147:18
599,000 [3] - 169:1, 169:7, 169:10

6

6 [8] - 127:23, 129:13, 129:16, 144:17, 145:9, 216:19, 217:1, 226:20
60 [3] - 51:11, 103:19, 193:12
60-year-olds [1] - 63:17
60.5 [1] - 187:12
60th [1] - 203:17
61 [2] - 109:8, 214:3
65.5 [1] - 187:11
68 [1] - 145:9
68.2 [1] - 147:19
6:33 [1] - 229:21

7

7 [6] - 109:9, 130:3, 130:5, 146:12, 203:1, 217:6
70,000 [1] - 121:5
700,000 [1] - 11:25
71,000 [1] - 35:7
72,000 [3] - 161:18, 161:19, 162:20
72nd [1] - 144:12
76 [1] - 203:11
76th [2] - 144:14, 145:8
77.4 [1] - 150:17
777 [1] - 5:10
78,000 [1] - 203:5
78.2 [1] - 150:17
79th [1] - 203:14
7th [2] - 146:17, 203:4

8

8 [48] - 54:10, 178:13, 178:15, 179:9, 179:17, 179:25, 180:4, 180:6, 180:12, 180:21, 180:24, 181:7, 181:10, 182:7, 183:2, 183:16, 184:4, 184:23, 185:2, 185:7, 185:9, 185:11, 185:20, 186:3, 186:6, 186:9, 186:22, 187:4, 187:7, 187:19, 187:24, 188:20, 190:23, 191:22, 205:24, 210:13, 210:16, 212:17, 212:18, 212:21, 213:2, 213:5, 213:7, 213:10, 214:3, 219:22, 220:24, 221:25
80 [2] - 23:10, 140:14
800,000 [1] - 11:25
80th [1] - 144:14
81 [1] - 203:11
81st [2] - 144:12, 144:14
839 [1] - 4:23
8th [6] - 41:17, 41:20, 49:15, 49:16, 55:7, 56:5

9

9 [16] - 3:14, 145:11, 176:15, 176:16, 176:18, 178:14, 210:13, 210:16, 212:17, 212:18, 212:21, 213:2, 213:5, 213:7, 213:10, 214:3
9.89 [1] - 11:10
90 [1] - 30:19
95 [1] - 211:3
99 [1] - 141:1
9:17 [2] - 4:13, 230:7
9th [1] - 49:16

A

ability [17] - 28:9, 31:24, 54:3, 54:21, 55:1, 58:7, 59:2, 61:16, 66:4, 68:12, 69:3, 69:4, 75:1, 152:21, 155:3, 175:24, 179:2
able [40] - 19:9, 23:23, 38:4, 42:5, 42:14, 48:8, 50:2, 50:17, 54:2, 54:7, 54:15, 68:18, 80:24, 85:7, 92:21, 101:16, 103:19, 105:8, 114:10, 115:22, 118:2, 118:19, 119:15, 119:16, 120:10, 120:11, 120:17, 122:1, 122:4, 123:1, 139:17, 155:6, 157:17, 174:10, 182:11, 186:7, 189:8, 198:10, 211:19, 219:19
absent [4] - 137:15, 146:8, 147:15, 227:8
absolute [7] - 11:22, 21:12, 138:9, 160:16, 161:4, 168:23, 180:19
absolutely [1] - 115:16
accept [1] - 183:9
acceptability [1] - 86:20
acceptable [6] - 9:18, 10:24, 12:19, 83:16, 154:18, 168:6
accepted [2] - 10:7, 28:19
access [2] - 68:18, 213:23
accommodate [1] - 200:11
accompanied [2] - 152:2, 152:3
accomplished [2] - 169:17, 201:22
accord [1] - 104:23
accorded [3] - 103:14, 104:5, 104:22
according [2] - 79:3, 187:5
account [14] - 45:4, 46:21, 49:12, 51:20, 58:21, 87:14, 87:18, 87:21, 93:19, 122:22, 125:11, 136:25, 141:14, 188:16
Accountability [5] - 1:14, 2:2, 2:13, 2:16, 4:5
accounting [2] - 134:22, 171:13
accounts [3] - 146:19, 154:6, 199:16
accuracy [1] - 211:14
accurate [7] - 24:10, 27:5, 48:23, 56:11, 56:12, 87:24, 144:5
accurately [2] - 87:21, 211:17
achieve [9] - 103:8, 105:23, 112:18, 131:8, 134:18, 135:4, 219:11, 227:6, 227:14
achieved [3] - 106:22, 131:12, 134:19
achieving [2] - 13:15, 106:24
acknowledge [1] - 174:6
ACS [1] - 181:19
Act [71] - 8:10, 14:10, 14:14, 14:19, 14:20, 14:25, 16:23, 17:9, 19:21, 20:11, 20:14, 20:18, 22:9, 24:7, 24:12, 24:13, 25:2, 25:13, 26:1, 33:14, 33:18, 34:25, 52:10, 57:12, 57:21, 58:12, 60:10, 64:19, 91:23, 99:10, 101:22, 104:18, 107:25, 108:19, 114:12, 121:7, 126:8, 128:8, 128:14, 128:17, 128:18, 129:3, 129:6, 129:12, 145:24, 146:1, 146:4, 147:21, 165:8, 167:11, 167:18, 180:10, 180:23, 186:4, 186:9, 186:18, 186:23, 187:12, 188:18, 190:2, 195:14, 196:18, 197:1, 197:5, 197:9, 202:23, 210:12, 210:16, 213:21, 214:3
acted [1] - 168:15
acting [1] - 54:20
action [28] - 59:24, 60:4, 60:15, 61:2, 62:4, 62:11, 62:15, 62:19, 65:9, 65:11, 65:20, 65:24, 66:4, 67:2, 67:19, 68:2, 68:8, 68:9, 68:24, 69:13, 69:20, 69:21, 129:6, 230:21, 230:25
actions [4] - 59:17, 59:24, 60:11, 67:21
actual [3] - 134:6, 197:5, 212:6
add [12] - 25:3, 49:14, 59:3, 89:12, 92:12, 110:19, 130:16, 132:22, 198:15, 201:8, 201:9, 201:12
added [5] - 133:8, 133:9, 181:22, 186:24, 189:21
adding [4] - 35:22, 55:24, 140:11, 141:25
addition [5] - 47:9, 123:21, 129:17, 209:2, 217:3
additional [11] - 16:13, 17:22, 23:6, 23:22, 63:5, 145:6, 171:17, 205:4, 208:12, 215:15, 216:1
additive [1] - 204:17
address [3] - 25:25, 129:3, 199:20
addressed [5] - 6:1, 18:10, 153:9, 164:23, 178:8
addresses [1] - 129:6
addressing [1] - 94:1
adhere [1] - 227:7
adherence [3] - 8:8, 14:2, 202:14
adheres [1] - 97:22
adhering [1] - 92:11
adjacent [2] - 199:4, 200:4
Adjourning [1] - 229:21
Adjusted [1] - 212:22
adjustments [1] - 188:4
adopting [1] - 169:8
advance [1] - 62:3
advantage [2] - 40:17, 148:14
advantages [1] - 36:24
adverse [1] - 117:23
adversely [4] - 114:1, 114:21, 146:22, 154:15
advisable [2] - 218:24, 222:11
affect [60] - 13:10, 42:12, 43:21, 62:25, 63:4, 66:4, 66:6, 66:17, 68:10, 68:14, 69:2, 69:3, 69:14, 71:3, 72:4, 87:15, 88:1, 89:23, 106:14, 106:19, 107:2, 107:9, 114:1, 114:21, 116:8, 116:9, 117:23, 126:23, 136:2, 136:6, 137:4, 137:8, 137:24, 138:24, 139:20, 140:6, 140:13, 140:20, 140:21, 140:22, 141:16, 146:2, 146:22, 146:24, 147:2, 147:4, 152:24, 154:7,

154:15, 154:21, 155:8, 166:25, 167:12, 167:22, 168:6, 169:9, 175:23, 204:12
affected [5] - 13:15, 34:23, 35:17, 76:9, 137:17
affecting [1] - 150:18
affects [12] - 68:8, 71:25, 107:7, 118:17, 137:15, 155:13, 155:19, 156:3, 156:13, 164:24, 204:11, 204:17
Affidavit [1] - 3:16
affidavit [1] - 70:13
affiliation [4] - 46:13, 46:24, 90:14, 138:14
affixed [1] - 231:2
afraid [2] - 50:22, 153:2
African [35] - 15:20, 16:4, 22:6, 22:12, 22:15, 22:21, 29:12, 33:24, 34:5, 34:8, 34:10, 34:12, 34:18, 40:5, 44:23, 47:2, 48:10, 48:16, 48:25, 67:3, 67:6, 67:12, 67:16, 76:13, 192:21, 192:24, 193:13, 193:19, 193:22, 227:20, 228:1, 228:2, 228:6, 228:12, 228:14
afternoon [2] - 60:22, 110:16
age [57] - 4:2, 31:22, 35:8, 50:9, 50:12, 50:13, 50:20, 50:23, 51:3, 51:4, 51:8, 63:25, 72:22, 77:2, 77:3, 77:4, 77:5, 77:6, 77:8, 77:9, 179:3, 179:11, 179:13, 179:15, 179:24, 180:3, 180:6, 180:11, 180:14, 180:20, 180:22, 181:6, 181:8, 181:24, 182:6, 182:14, 182:15, 185:5, 185:7, 186:2, 186:4, 186:19, 186:20, 187:3, 187:10, 187:11, 187:13, 187:22, 191:3, 192:23, 213:4, 213:7, 213:10, 228:7, 228:9, 228:12
ages [1] - 63:7
aggregate [1] - 28:18
aggregation [1] - 192:18
agree [6] - 57:16, 135:5, 151:4, 154:22, 195:11, 216:2
agreement [1] - 104:14
agricultural [1] - 99:17
ahead [6] - 61:3, 71:21, 103:6, 142:24, 143:6, 189:18
aided [1] - 230:17
al [4] - 4:3, 4:5, 4:21, 4:25
aldermanic [12] - 33:4, 41:21, 48:20, 49:7, 49:12, 49:19, 49:21, 50:2, 50:16, 52:6, 185:11, 214:4
allow [7] - 17:13, 39:19, 40:1, 70:18, 70:24, 71:5, 215:25
allowed [1] - 112:13
allowing [1] - 70:10
allows [4] - 32:4, 40:7, 70:12, 71:12
almost [4] - 13:23, 158:18, 198:24, 202:2
alone [1] - 161:18
alter [2] - 25:7, 189:22
alteration [1] - 203:21
alternate [1] - 228:19
alternative [6] - 13:25, 16:11, 55:18, 55:23, 165:21, 165:23
alternatives [7] - 154:11, 154:14, 164:21, 164:22, 165:11, 165:12
ALVIN [1] - 1:3
Alvin [2] - 4:3, 4:21
ambiguously [1] - 7:6
ambit [1] - 93:18
amend [1] - 66:1
amended [3] - 15:13, 196:17, 205:9
Amended [1] - 3:17
Amendment [4] - 14:16, 158:22, 158:23, 217:23
amendments [1] - 17:8
American [32] - 15:20, 16:5, 22:6, 22:12, 22:15, 22:21, 29:12, 34:5, 34:12, 40:5, 44:24, 47:2, 48:10, 48:17, 48:25, 67:3, 67:7, 67:12, 67:16, 181:18, 187:9, 192:21, 193:14, 193:19, 193:22, 206:21, 227:20, 228:1, 228:2, 228:6, 228:12, 228:14
Americans [6] - 33:24, 34:8, 34:10, 34:18, 76:13, 192:24
amorphism [1] - 58:16
amount [8] - 60:17, 168:6, 199:6, 199:23, 199:24, 200:5, 202:14, 204:24
amounts [1] - 200:13
AMY [1] - 1:7
analogous [1] - 176:4
analyses [1] - 212:15
analysis [84] - 18:19, 19:17, 27:6, 27:20, 29:1, 30:15, 30:17, 31:15, 32:16, 33:12, 34:16, 35:4, 39:9, 39:10, 42:13, 43:5, 43:22, 45:8, 45:17, 48:13, 48:22, 50:14, 55:19, 56:10, 56:15, 56:21, 64:20, 67:1, 67:6, 67:10, 67:14, 67:16, 67:20, 67:23, 68:5, 69:24, 79:4, 87:17, 87:24, 88:9, 89:5, 89:9, 89:13, 89:21, 89:25, 90:3, 90:5, 90:12, 90:24, 91:3, 91:9, 91:11, 128:8, 130:25, 137:14, 140:20, 145:22, 149:18, 166:15, 178:24, 192:11, 192:17, 193:10, 193:19, 194:6, 195:2, 195:6, 195:15, 196:10, 200:16, 202:13, 210:14, 210:15, 210:18, 210:19, 211:9, 211:10, 211:25, 212:4, 212:10, 214:23, 215:9, 227:24, 227:25
Analysis [1] - 211:24
analyze [5] - 36:5, 36:11, 39:8, 40:7, 44:17
analyzed [2] - 26:15, 166:8
analyzes [1] - 129:12
analyzing [2] - 27:3, 35:16
anew [1] - 222:5
anomalies [4] - 215:4, 215:14, 216:2, 229:4
answer [27] - 7:15, 12:12, 13:5, 13:17, 17:5, 18:25, 36:12, 66:1, 74:23, 101:12, 103:6, 110:19, 111:13, 113:1, 114:17, 125:17, 136:5, 148:23, 153:2, 153:3, 162:25, 164:4, 197:24, 197:25, 198:1, 198:3, 198:5
answering [1] - 7:8
answers [2] - 6:24, 18:23
anticipate [1] - 196:9
apolitical [1] - 227:9
apologize [4] - 61:6, 152:23, 197:7, 197:10
apparent [1] - 227:9
appeals [1] - 46:20
appear [3] - 112:21, 147:13, 151:19
appearing [5] - 4:20, 4:24, 5:4, 5:7, 5:10
apples [2] - 170:19, 191:8
Appleton [1] - 206:10
applicable [5] - 8:9, 10:21, 20:24, 130:7, 220:21
applied [3] - 14:25, 109:4, 116:6
applies [8] - 14:24, 21:13, 39:22, 41:1, 65:18, 154:12, 158:22, 217:19
apply [5] - 15:12, 40:1, 55:22, 135:8, 145:2
applying [3] - 30:8, 39:11, 52:25
apportion [1] - 124:2
apportioned [1] - 103:22
apportionment [2] - 196:21, 196:25
appreciate [1] - 115:24
approach [3] - 30:20, 36:7, 105:25
approached [1] - 11:13
appropriate [4] - 32:21, 114:19, 117:3, 117:4
approve [1] - 15:10
approximate [1] - 141:8
arbitrarily [5] - 41:23, 41:24, 96:17, 105:20, 109:22
arbitrary [1] - 227:5
area [73] - 22:10, 22:11, 33:18, 34:14, 34:15, 35:9, 41:21, 49:16, 55:8, 78:10, 79:9, 80:1, 80:2, 80:9, 82:25, 83:2, 83:13, 85:18, 96:3, 96:8, 96:19, 97:13, 97:15, 97:16, 99:15, 99:18, 99:22, 103:25, 113:16, 113:19, 121:10, 139:1, 139:4, 139:5, 139:6, 139:9, 139:15, 139:23, 139:25, 140:10, 140:11, 140:18, 140:19, 141:25, 144:10, 150:4, 151:14, 179:4, 184:2, 185:12, 191:12, 191:14, 191:22, 193:21, 199:15, 202:24, 202:25, 203:7, 203:10, 203:20, 206:1, 206:10, 206:13, 208:18, 210:15, 210:16, 214:2, 214:5, 223:7
areas [46] - 14:25, 29:9, 29:10, 33:23, 34:2, 34:8, 34:19, 34:21, 34:23, 35:6, 35:13, 35:17, 48:2, 54:13, 97:17, 99:8, 99:16, 100:16, 100:22, 102:3, 117:15, 137:17, 138:10, 138:12, 139:10, 139:11, 139:12, 140:8, 140:24, 141:20, 142:2, 142:4, 144:25, 145:1, 145:5, 146:25, 161:16, 170:3, 200:10, 203:13, 203:17, 203:22,

204:3, 204:19
argument [3] - 99:7, 102:10, 103:15
arise [1] - 113:4
Arizona [4] - 6:11, 6:13, 15:5, 94:22
arrived [1] - 131:21
Article [1] - 124:1
articulated [2] - 10:12, 123:12
aside [5] - 36:11, 104:18, 108:18, 159:20, 215:13
aspect [1] - 54:17
aspects [2] - 68:21, 78:25
Assembly [29] - 178:13, 178:15, 179:24, 180:4, 180:12, 180:21, 180:23, 181:7, 181:10, 182:6, 183:16, 184:4, 184:23, 185:2, 185:9, 185:20, 186:3, 186:5, 186:9, 186:22, 187:4, 187:7, 187:18, 187:24, 188:20, 190:22, 191:22, 203:1, 210:16
assembly [38] - 8:12, 9:3, 9:12, 33:15, 34:20, 41:17, 54:11, 55:13, 77:12, 89:20, 92:24, 98:25, 99:1, 99:3, 99:4, 103:22, 109:14, 112:10, 134:22, 136:24, 144:9, 152:4, 152:5, 182:22, 182:25, 183:1, 184:19, 192:21, 195:24, 196:1, 197:18, 202:22, 203:14, 206:15, 206:17, 221:23, 228:2, 228:3
assess [5] - 27:25, 78:14, 97:8, 97:22, 101:16
assessing [1] - 167:21
assessment [4] - 53:1, 101:18, 192:8, 228:5
assign [1] - 150:21
assignment [1] - 215:6
assistant [1] - 211:8
Assistant [2] - 3:25, 5:2
associated [2] - 46:6, 78:12
assume [5] - 7:15, 169:5, 183:13, 212:24, 213:13
assuming [2] - 115:9, 116:4
assumption [3] - 137:13, 137:19, 209:3
assumptions [1] - 137:21
attach [1] - 177:23
attached [2] - 3:22, 208:25
attachments [1] - 3:14
attempt [6] - 78:24, 79:11, 79:18, 118:14, 133:6, 137:7
attempted [1] - 108:2
attempting [3] - 49:10, 49:11, 155:10
attended [1] - 215:3
attention [7] - 62:4, 99:19, 128:17, 131:1, 155:17, 166:15, 192:20
attitudes [2] - 27:18, 47:12
attorney [2] - 230:20, 230:23
Attorney [6] - 3:25, 4:19, 4:22, 5:2, 5:5, 5:9
Attorneys [6] - 4:11, 4:19, 4:23, 5:6, 5:9, 230:8
attributable [1] - 45:19
authority [3] - 94:20, 148:13, 183:9
available [5] - 41:6, 41:13, 41:23, 208:6, 212:2
Avenue [2] - 5:10, 205:25
average [13] - 86:10, 86:12, 109:8, 134:21, 135:1, 137:16, 141:5, 146:14, 147:18, 147:19, 195:7, 195:13, 203:14
averaged [1] - 141:2
avoid [2] - 7:4, 7:7
avoided [1] - 126:21
aware [22] - 14:12, 25:8, 32:3, 32:7, 45:14, 45:15, 84:5, 92:6, 94:24, 95:2, 95:21, 95:23, 104:15, 121:9, 121:13, 123:10, 123:17, 153:19, 155:25, 224:24, 225:6, 226:9
axis [2] - 78:3, 78:4

B

backing [2] - 45:7, 45:10
bad [2] - 96:22, 206:13
balance [2] - 171:14, 214:6
balancing [1] - 116:9
BALDUS [1] - 1:3
Baldus [3] - 4:3, 4:21, 194:8
BALDWIN [1] - 1:10
ballot [2] - 28:10, 68:13
ballots [2] - 28:9, 29:7
Bandemer [1] - 149:1
baptismal [8] - 70:11, 70:15, 73:22, 74:4, 74:12, 74:20, 75:9, 75:14
BARBERA [1] - 1:3
bare [3] - 51:10, 53:23, 188:14
BARLAND [2] - 1:16, 2:15
base [2] - 41:1, 159:12
Based [1] - 197:17
based [25] - 15:1, 48:19, 49:2, 49:5, 94:14, 105:1, 110:23, 111:5, 112:17, 148:3, 148:4, 151:23, 160:11, 161:4, 162:2, 177:2, 178:24, 180:7, 187:8, 188:4, 196:21, 204:4, 223:20, 228:5
basic [2] - 39:22, 103:17
basis [9] - 45:1, 99:1, 107:10, 120:7, 130:1, 209:18, 220:12, 221:10, 224:9
Baumgart [4] - 3:16, 6:19, 130:19, 194:19
bearing [1] - 173:25
BECHEN [1] - 1:3
become [2] - 146:9, 149:13
becomes [2] - 38:24, 39:1
begin [6] - 7:20, 9:11, 105:1, 127:6, 140:3, 222:5
beginning [5] - 107:9, 118:10, 124:8, 194:25, 208:3
begins [3] - 174:3, 217:7, 219:25
behalf [7] - 4:2, 4:20, 4:24, 5:4, 5:7, 5:10, 193:24
behavior [22] - 26:9, 27:7, 27:12, 27:20, 27:21, 27:24, 27:25, 28:5, 28:7, 28:17, 28:24, 34:17, 35:5, 36:3, 39:21, 47:10, 49:2, 49:5, 53:5, 54:19, 55:21, 214:2
behaviors [3] - 27:18, 47:12, 53:4
behest [1] - 218:3
behind [2] - 63:18, 147:12
belief [1] - 161:5
BELL [1] - 1:7
bell [4] - 40:12, 40:13, 40:15, 44:5
bell-shaped [1] - 40:12
Beloit [1] - 126:11
below [4] - 9:17, 11:2, 11:19, 146:14
ben [1] - 214:17
benchmark [1] - 51:9
beneath [1] - 98:5
Bernard [1] - 214:25
best [16] - 10:11, 30:1, 53:6, 77:18, 81:1, 81:4, 81:6, 83:15, 98:23, 129:5, 130:12, 133:14, 169:16, 175:15, 190:10, 225:6
better [13] - 6:22, 14:1, 30:22, 34:22, 38:22, 45:12, 82:5, 119:18, 119:23, 150:20, 151:12, 165:15, 166:22
between [59] - 8:23, 9:1, 31:8, 32:12, 37:2, 37:10, 40:19, 40:20, 46:23, 62:8, 63:7, 65:13, 65:16, 67:19, 68:8, 76:20, 77:2, 78:23, 79:9, 80:13, 82:13, 82:18, 83:7, 85:22, 87:7, 89:16, 89:19, 90:8, 90:13, 91:19, 102:15, 111:4, 120:12, 121:3, 121:4, 127:15, 138:22, 141:9, 144:12, 154:1, 161:9, 162:13, 171:10, 174:24, 175:3, 175:7, 179:25, 180:4, 180:13, 180:15, 181:20, 182:13, 186:21, 198:13, 199:16, 200:19, 215:5, 223:10, 223:14
beyond [8] - 38:19, 56:10, 147:8, 147:23, 153:17, 166:4, 192:9, 217:20
biased [1] - 91:10
BIENDSEIL [1] - 1:3
big [2] - 160:8, 170:12
binds [1] - 129:22
birth [8] - 70:7, 70:14, 73:21, 74:3, 74:11, 74:19, 75:8, 75:13
bit [17] - 9:21, 30:13, 32:18, 43:19, 54:16, 56:2, 77:10, 91:24, 94:23, 100:25, 121:16, 146:15, 146:16, 152:15, 169:25, 178:13, 186:21
bivariate [3] - 40:11, 40:12, 40:13
bizarrely [3] - 84:13, 86:18, 95:14
black [1] - 40:3
block [1] - 53:10
blocks [2] - 35:11, 110:23
Blue [2] - 183:12, 184:21
Board [5] - 1:14, 2:2, 2:13, 2:16, 4:5
bodies [1] - 94:19
body [1] - 87:5
BOERNER [1] - 5:6
Book [2] - 183:12, 184:21
book [2] - 125:5, 216:22
BOONE [2] - 1:4
border [2] - 87:7, 87:9
bordered [1] - 87:4
bordering [1] - 90:2
bottom [5] - 129:16,

160:1, 195:5, 206:19, 217:1
bounced [1] - 43:24
bound [3] - 30:23, 129:19, 217:4
boundaries [7] - 86:25, 100:5, 100:9, 109:16, 123:19, 124:20, 124:22
boundary [2] - 87:6
bounded [1] - 87:2
bounds [21] - 29:9, 29:15, 30:6, 30:13, 30:25, 31:4, 31:9, 31:10, 31:15, 32:3, 36:7, 37:3, 37:14, 37:15, 37:19, 37:23, 38:2, 38:3, 38:5, 38:8, 38:13
brackets [1] - 211:2
branch [3] - 107:17, 116:19, 119:1
branches [2] - 117:18, 149:14
breached [1] - 158:19
break [8] - 56:1, 56:3, 56:25, 71:25, 122:19, 133:18, 133:23, 176:11
BRENNAN [2] - 1:15, 2:14
BRETT [1] - 1:5
briefly [1] - 192:20
bright [4] - 85:10, 97:13, 99:20, 111:13
bring [2] - 201:8, 212:6
broader [5] - 34:1, 65:22, 178:5, 222:20, 223:7
broken [1] - 224:21
brought [1] - 56:6
browsed [1] - 194:24
build [1] - 106:13
builds [1] - 122:23
built [1] - 101:4
bulk [1] - 128:16
bullet [3] - 129:13, 149:21, 226:21
bulleted [1] - 127:24
BUMPUS [1] - 1:4
burden [1] - 62:3
business [1] - 206:1

C

C+ [1] - 212:8
calculate [5] - 32:4, 80:9, 81:20, 134:3, 179:10
calculated [4] - 132:3, 135:1, 144:24, 151:17
calculating [2] - 86:11, 144:25
calculation [8] - 31:25, 88:25, 136:6, 144:17, 145:8, 161:17, 179:6, 199:9
calculations [12] - 135:20, 137:2, 143:19, 149:25, 151:19, 151:23, 152:13, 179:20, 186:19, 188:3, 201:4, 201:15
California [2] - 15:6, 94:20
campaign [2] - 6:14, 176:5
Campbell [2] - 5:13, 5:13
candidate [40] - 32:23, 32:24, 38:10, 39:24, 39:25, 40:22, 41:19, 42:11, 42:12, 42:17, 42:18, 44:19, 45:25, 46:2, 53:12, 54:3, 54:21, 55:2, 55:8, 55:20, 69:4, 178:17, 178:22, 183:15, 185:1, 185:16, 185:21, 186:8, 186:11, 189:25, 190:13, 191:2, 191:18, 191:24, 192:3, 192:4, 192:15, 210:24, 210:25
candidates [42] - 15:17, 16:10, 16:20, 17:18, 17:20, 17:21, 21:18, 26:12, 26:18, 26:22, 32:25, 33:1, 36:23, 37:6, 40:5, 40:6, 42:19, 42:24, 43:1, 43:4, 43:13, 43:17, 43:21, 44:2, 44:6, 44:16, 46:8, 53:3, 54:7, 55:11, 55:16, 55:22, 58:13, 59:14, 65:22, 69:10, 188:19, 191:13, 191:15, 192:9, 193:14, 226:7
CANE [2] - 1:15, 2:14
cannot [2] - 173:17, 220:20
capable [1] - 70:10
capacity [2] - 1:14, 2:13
capitol [1] - 175:18
Caption [1] - 1:17
capture [8] - 78:24, 79:4, 79:11, 81:15, 82:11, 82:12, 83:10, 139:18
captured [1] - 23:20
captures [3] - 82:13, 82:17, 82:21
car [1] - 72:14
card [6] - 70:8, 70:15, 70:17, 71:7, 73:11, 75:14
cardinal [1] - 105:10
cards [5] - 73:21, 74:4, 74:12, 74:20, 75:8
care [3] - 115:9, 116:16, 198:8
careful [1] - 20:21
carefully [1] - 230:15
CARLENE [1] - 1:3
carries [2] - 149:20, 222:19
carry [2] - 44:25, 112:21
carve [1] - 100:18
carved [1] - 99:12
carveouts [1] - 209:18
case [52] - 6:10, 6:14, 6:17, 11:5, 11:15, 16:25, 17:7, 18:3, 19:19, 20:21, 24:10, 32:16, 42:18, 46:18, 48:1, 50:15, 52:12, 55:6, 69:23, 74:2, 76:13, 76:15, 92:16, 99:6, 99:14, 103:15, 107:8, 112:9, 113:11, 118:18, 128:14, 133:20, 139:10, 140:8, 140:10, 141:5, 143:22, 144:16, 145:12, 148:20, 155:5, 168:11, 169:12, 193:25, 195:16, 200:18, 215:16, 219:5, 219:12, 221:13, 225:16, 226:2
Case [1] - 2:11
cases [14] - 8:21, 46:10, 84:10, 101:16, 144:4, 144:13, 202:2, 218:6, 218:18, 218:19, 220:7, 224:3, 224:16, 225:17
cast [5] - 28:10, 29:7, 38:9, 68:13, 69:3
categories [5] - 79:3, 79:7, 79:8, 79:19, 88:22
category [6] - 42:20, 43:17, 69:19, 69:20, 69:21, 93:13
caught [2] - 206:25, 208:18
causative [1] - 147:4
caused [4] - 65:11, 107:15, 202:14, 202:23
causes [1] - 172:14
cautious [1] - 163:2
CD [3] - 132:25, 208:18, 208:23
CECELIA [1] - 1:7
cells [1] - 38:12
censi [1] - 181:20
census [16] - 35:11, 42:6, 51:17, 51:21, 51:23, 110:23, 110:25, 180:8, 181:11, 181:16, 187:8, 187:18, 187:23, 187:25, 196:21, 197:17
censuses [1] - 181:20
center [2] - 83:7, 83:8
central [3] - 83:6, 99:14, 206:1
century [1] - 94:6
certain [22] - 14:25, 15:16, 30:9, 30:10, 39:15, 44:1, 61:21, 86:17, 95:5, 106:21, 107:13, 109:1, 112:16, 158:13, 170:15, 177:7, 188:15, 202:23, 215:5, 219:11, 220:17, 223:7
certainly [15] - 32:7, 46:18, 66:3, 66:12, 86:15, 100:6, 107:10, 110:21, 111:14, 147:10, 155:16, 167:8, 174:5, 176:8, 198:25
certainty [3] - 29:4, 74:23, 159:18
certificate [8] - 70:7, 70:11, 70:15, 70:16, 75:14, 75:15, 75:19, 75:21
certificates [10] - 73:21, 73:22, 74:4, 74:5, 74:12, 74:13, 74:20, 74:21, 75:8, 75:9
certify [2] - 230:5, 230:19
cetera [2] - 72:11, 138:19
challenged [2] - 22:20, 129:24
challenging [2] - 19:25, 21:1
chance [4] - 54:8, 175:15, 194:21, 194:24
change [25] - 15:7, 54:12, 59:4, 66:12, 71:21, 103:21, 112:3, 131:12, 134:23, 134:24, 135:3, 137:23, 137:24, 138:5, 140:24, 141:2, 141:4, 141:24, 142:1, 142:6, 151:1, 156:9, 173:5, 189:19, 196:22
changed [4] - 135:6, 150:15, 150:17, 173:8
changes [10] - 15:10, 25:22, 65:18, 107:6, 107:8, 107:9, 146:7, 205:4, 220:3, 227:10
changing [2] - 25:5, 140:8
chaotic [1] - 107:5
characteristic [1] - 97:16
characteristics [8] - 17:19, 29:7, 46:8, 48:5, 62:16, 66:13, 102:23, 201:25
characterize [1] - 69:19
characterizing [1] - 80:12
check [11] - 128:11, 132:1, 151:21, 152:4, 183:11, 184:5, 184:21, 187:20, 206:4, 211:13, 220:16
checklist [1] - 116:15
choice [33] - 15:17, 16:10, 16:20, 21:18, 53:3, 53:12, 54:4, 54:8, 54:22, 55:2, 58:13, 59:14, 65:22, 69:4, 69:10, 114:16, 178:17, 178:22,

183:15, 185:1, 185:17, 185:22, 186:8, 186:11, 188:19, 190:13, 191:2, 191:18, 191:25, 192:9, 192:15, 193:15, 221:19
choose [1] - 174:23
CINDY [1] - 1:3
circle [17] - 77:21, 78:8, 78:9, 78:10, 79:22, 79:24, 80:2, 80:8, 80:10, 80:16, 82:9, 82:14, 83:9, 83:12, 83:14, 109:7, 151:14
circles [1] - 150:3
circuit [2] - 182:23, 213:25
circumference [2] - 151:9, 151:13
circumscribing [6] - 79:22, 80:16, 82:9, 82:15, 83:9, 109:7
circumstance [2] - 20:7, 215:23
circumstances [23] - 17:23, 42:2, 42:8, 55:15, 57:23, 58:15, 58:17, 58:18, 59:8, 64:19, 65:12, 67:6, 67:10, 67:20, 67:22, 106:7, 109:3, 114:3, 114:18, 148:7, 156:12, 189:20, 200:8
citation [1] - 126:13
citations [1] - 10:6
cite [1] - 221:7
cited [1] - 208:5
cities [3] - 97:16, 161:24, 205:13
citizen [28] - 50:9, 50:11, 50:13, 50:23, 51:4, 51:8, 76:11, 179:11, 179:15, 179:24, 180:14, 180:19, 180:20, 180:22, 181:6, 181:8, 181:24, 182:6, 182:14, 182:15, 185:6, 186:2, 186:4, 186:20, 187:3, 187:10, 188:5, 213:9
citizens [3] - 76:20, 179:5
Citizenship [1] - 212:22
citizenship [4] - 75:18, 181:12, 181:15, 181:21
city [23] - 31:16, 34:4, 34:5, 34:9, 44:21, 98:20, 98:21, 98:24, 99:2, 99:7, 99:12, 99:22, 105:23, 109:12, 112:9, 121:13, 126:11, 135:22, 138:8, 140:4, 179:4, 206:10
City [3] - 4:11, 15:5, 230:9
citywide [3] - 33:6, 34:16, 35:3
clad [1] - 9:18
claim [25] - 16:21, 18:20, 21:24, 22:19, 23:3, 23:14, 23:16, 23:24, 23:25, 24:5, 25:1, 34:23, 57:16, 57:22, 65:14, 65:15, 95:17, 100:19, 102:10, 126:8, 126:9, 146:10, 161:22, 161:24, 188:7
claims [2] - 101:7, 101:17
CLARENCE [1] - 1:5
clarification [5] - 74:17, 150:7, 214:12, 216:16, 221:21
clarify [1] - 20:2
Clark [2] - 205:17, 205:21
classes [3] - 15:16, 58:11, 59:13
classifications [2] - 79:13, 79:15
classify [1] - 65:8
clear [16] - 7:10, 7:14, 29:5, 43:14, 72:25, 107:11, 107:16, 138:23, 147:7, 147:16, 150:13, 152:16, 169:18, 177:11, 213:22, 220:5
cleared [1] - 15:8
clearly [4] - 101:19, 117:6, 165:12, 165:16
CLEEREMAN [1] - 1:4
close [9] - 9:13, 11:7, 30:21, 109:12, 135:4, 159:19, 161:19, 173:22, 221:14
closer [4] - 31:4, 80:3, 80:4, 134:20
closing [1] - 209:23
CLVS [1] - 5:13
co [1] - 39:20
co-variate [1] - 39:20
coalitions [1] - 206:7
COCHRAN [1] - 1:4
code [5] - 211:15, 211:17, 211:20, 212:4, 212:6
coefficient [1] - 91:9
cognizant [2] - 20:22, 110:2
coherence [1] - 96:19
cohesion [1] - 27:15
cohesive [7] - 17:15, 26:6, 26:7, 47:17, 47:21, 49:1, 49:4
collapsed [2] - 42:19, 43:8
collared [1] - 138:16
collective [2] - 68:21, 223:16
college [1] - 63:10
column [5] - 133:8, 143:20, 143:25, 213:12, 213:13
Column [1] - 133:10
columns [1] - 41:4
Colón [3] - 182:18, 183:14, 184:3
combination [5] - 30:5, 31:2, 37:23, 75:17, 209:10
combinations [1] - 105:7
combining [1] - 181:14
coming [4] - 125:21, 132:14, 137:8, 207:15
comma [1] - 212:8
commencing [1] - 4:13
comment [1] - 104:3
commission [2] - 94:21, 231:6
commissioned [1] - 230:4
common [13] - 16:2, 16:15, 19:6, 49:17, 79:17, 79:19, 96:4, 96:7, 100:21, 153:1, 153:3, 185:10, 221:11
commonalities [1] - 98:23
commonly [6] - 17:10, 78:20, 79:21, 80:15, 80:19, 193:4
communities [38] - 8:8, 48:9, 52:14, 54:7, 59:6, 76:19, 92:10, 95:25, 96:10, 96:16, 96:22, 97:5, 97:9, 97:12, 97:20, 97:23, 97:24, 98:13, 98:16, 100:2, 101:8, 101:24, 102:16, 105:16, 105:18, 109:25, 111:6, 111:7, 111:9, 111:18, 112:20, 113:3, 146:21, 147:10, 162:13, 181:25, 205:12, 206:21
community [101] - 16:7, 17:12, 17:15, 17:18, 17:24, 22:23, 23:22, 26:17, 26:19, 27:19, 28:1, 29:13, 45:24, 47:12, 47:17, 47:20, 47:23, 47:24, 48:1, 48:3, 48:10, 48:14, 48:17, 48:19, 48:25, 49:3, 52:22, 52:23, 53:11, 54:14, 54:25, 55:5, 58:6, 67:4, 67:7, 67:8, 67:12, 67:14, 67:16, 67:18, 67:22, 84:15, 96:1, 96:3, 96:13, 96:20, 97:18, 98:14, 99:8, 99:21, 99:25, 100:7, 100:11, 100:13, 100:17, 100:20, 100:24, 101:2, 101:6, 101:15, 101:19, 102:24, 103:16, 105:22, 111:22, 112:7, 112:22, 113:16, 113:20, 113:21, 113:24, 114:14, 115:11, 116:6, 117:22, 118:1, 118:11, 120:15, 120:18, 120:24, 161:25, 162:9, 178:16, 179:12, 179:16, 180:15, 180:21, 180:23, 181:7, 181:9, 183:15, 185:20, 186:3, 186:5, 186:7, 187:4, 191:1, 191:23, 206:6
Community [2] - 181:18, 187:9
community's [5] - 54:3, 54:21, 55:1, 185:1, 192:15
compact [32] - 8:5, 17:13, 22:1, 22:11, 77:14, 77:20, 77:22, 80:3, 80:5, 83:19, 83:21, 84:1, 84:2, 84:19, 84:25, 85:3, 85:6, 85:9, 85:14, 86:19, 87:2, 87:15, 89:6, 90:11, 93:24, 95:14, 109:17, 119:13, 195:10
compaction [1] - 79:19
compactness [51] - 77:16, 77:23, 78:3, 79:5, 81:2, 81:8, 82:11, 83:16, 84:4, 85:25, 86:4, 86:10, 86:11, 86:16, 86:20, 87:17, 87:24, 88:1, 88:8, 88:19, 88:25, 89:16, 89:23, 90:13, 91:24, 92:5, 92:9, 92:22, 92:25, 93:13, 93:21, 95:8, 109:4, 109:19, 124:17, 149:18, 149:25, 150:19, 152:5, 155:1, 195:2, 195:6, 195:19, 195:24, 195:25, 196:1, 196:2, 196:4, 196:10, 198:21
Company [1] - 5:13
comparable [2] - 63:24
compare [5] - 78:7, 165:10, 166:3, 180:5, 180:8
compared [3] - 135:3, 136:20, 143:11
comparing [4] - 3:15, 63:15, 89:11, 170:19
comparison [6] - 51:23, 79:8, 80:23, 88:17, 139:20, 158:3
compelling [1] - 12:15
compensate [1] - 53:20
competing [1] - 101:7
competition [1] - 219:11
competitive [1] - 175:16
complaint [5] - 196:17, 196:24, 199:10, 199:11, 205:9
Complaint [1] - 3:17
complements [1] - 27:19
complete [1] - 39:10
completed [2] -

110:12, 215:8
completely [5] - 38:18, 71:10, 78:9, 140:12, 190:20
compliance [6] - 14:6, 15:9, 104:17, 108:19, 146:1, 146:3
complicated [4] - 40:17, 52:3, 83:5, 110:9
complicates [1] - 206:6
comply [10] - 14:9, 20:10, 20:14, 20:17, 20:23, 22:8, 33:18, 114:11, 129:19, 217:5
complying [2] - 129:22, 145:24
component [1] - 181:22
composed [1] - 16:6
composition [4] - 29:6, 46:7, 53:9, 146:7
compound [2] - 204:12, 204:14
comprehensive [4] - 58:19, 79:12, 92:8, 228:4
comprise [2] - 49:15, 170:4
comprised [3] - 94:10, 185:12, 214:3
compute [1] - 80:1
computer [1] - 230:17
computer-aided [1] - 230:17
computing [1] - 212:3
conceivable [1] - 114:22
conceivably [1] - 146:9
conceive [3] - 68:5, 200:8, 225:9
conceived [1] - 174:14
conceiving [1] - 80:12
concentrate [1] - 21:25
concentrated [3] - 22:2, 34:6, 187:2
concentration [4] - 32:13, 35:1, 55:25, 68:22
concentrations [14] - 16:4, 16:6, 21:10, 21:17, 22:2, 29:14, 30:10, 30:21, 33:24, 54:13, 188:6, 193:7, 193:12, 193:16
concept [1] - 100:8
conceptual [2] - 54:17, 107:10
conceptualize [1] - 224:15
concern [2] - 147:9, 198:7
concerned [3] - 111:6, 206:3, 212:16
concerning [1] - 230:14
concert [1] - 26:15
conclude [9] - 48:24, 49:3, 106:22, 177:6, 178:15, 179:23, 180:2, 184:25, 192:12
concluded [4] - 20:24, 144:1, 144:4, 144:18
conclusion [23] - 17:4, 19:22, 20:19, 25:8, 47:16, 58:10, 59:12, 61:2, 64:25, 68:1, 69:24, 85:17, 102:3, 110:8, 111:19, 113:15, 115:5, 126:1, 137:9, 149:11, 162:17, 178:24, 193:6
conclusions [1] - 18:9
conclusively [1] - 201:5
condition [1] - 19:16
conditioned [2] - 158:20, 179:2
conditions [4] - 18:19, 26:21, 41:18, 107:7
conduct [4] - 48:22, 89:13, 211:9, 227:25
conducted [3] - 27:20, 212:1, 227:24
conducting [1] - 28:23
confessional [1] - 226:24
confidence [6] - 32:1, 32:4, 35:25, 36:2, 42:6, 211:3
confident [2] - 35:18, 108:6
configuration [8] - 16:11, 54:6, 54:9, 140:9, 155:6, 155:7, 189:19, 189:23
configurations [5] - 13:25, 55:18, 55:23, 220:3, 228:19
configured [3] - 87:13, 142:17, 185:22
confirm [1] - 43:18
conflict [2] - 113:17, 223:23
conflicts [1] - 102:11
confused [2] - 173:11, 184:17
congress [1] - 84:9
congressional [37] - 8:13, 8:18, 8:19, 9:2, 11:24, 33:8, 93:4, 93:11, 93:22, 94:2, 94:8, 94:9, 94:16, 94:25, 95:3, 95:9, 95:20, 95:22, 128:3, 176:7, 215:6, 215:12, 219:4, 219:5, 220:10, 220:14, 221:1, 221:9, 221:12, 221:16, 224:6, 226:3, 226:25, 227:1, 227:3, 227:15, 229:14
Congressional [1] - 221:2
connected [3] - 18:4, 97:17, 108:25
connection [2] - 75:5, 120:25
consensus [4] - 81:3, 104:9, 118:20, 118:23
consequently [1] - 139:24
consider [21] - 7:23, 14:6, 14:21, 66:15, 67:21, 85:13, 97:12, 115:3, 115:8, 121:18, 126:2, 138:21, 152:24, 162:9, 171:5, 218:8, 218:25, 222:12, 224:7, 224:13, 225:15
consideration [5] - 65:2, 115:24, 217:12, 224:22, 224:23
considerations [4] - 65:23, 154:7, 224:4, 225:2
considered [18] - 9:9, 13:3, 26:25, 29:25, 43:4, 52:19, 53:23, 57:14, 58:9, 58:17, 71:2, 71:13, 86:19, 100:17, 123:15, 168:5, 202:12, 218:6
considering [2] - 86:4, 153:14
consistent [4] - 47:5, 72:20, 102:8, 145:2
consists [2] - 29:2, 214:4
constitute [10] - 11:23, 12:1, 16:17, 21:4, 57:11, 68:23, 83:13, 167:23, 203:23, 228:18
constituted [6] - 99:8, 118:20, 161:10, 161:12, 161:25, 166:8
constitutes [8] - 99:21, 100:20, 101:15, 113:16, 126:3, 135:17, 177:5, 209:11
constituting [2] - 84:16, 148:8
Constitution [3] - 122:18, 122:19, 148:23
constitution [29] - 93:7, 93:16, 95:4, 95:7, 95:11, 95:19, 105:13, 105:14, 121:21, 122:6, 122:22, 123:3, 123:8, 123:23, 123:24, 124:1, 124:6, 124:8, 124:11, 124:13, 124:15, 148:20, 155:4, 156:15, 156:23, 158:12, 158:23, 171:21, 217:21
constitutional [27] - 14:15, 23:4, 93:1, 93:6, 93:8, 93:14, 95:17, 121:17, 122:20, 123:1, 129:18, 130:10, 153:1, 153:5, 157:24, 158:6, 158:8, 158:17, 158:19, 177:5, 217:2, 217:4, 217:18, 217:22, 219:25, 220:18, 226:4
constitutions [2] - 84:5, 216:24
constrained [1] - 37:10
construct [1] - 177:10
construed [1] - 15:18
consultation [1] - 51:13
consultations [1] - 49:18
consulted [2] - 49:9, 49:10
contain [4] - 112:10, 128:7, 206:12, 208:24
contained [3] - 22:20, 140:1, 210:15
containing [1] - 3:19
contains [1] - 79:25
context [14] - 19:25, 20:25, 21:14, 21:15, 22:18, 55:4, 98:19, 98:20, 100:15, 113:2, 114:2, 114:23, 175:10, 178:6
contexts [5] - 34:3, 114:5, 218:22, 219:1, 219:7
contextual [7] - 98:18, 105:1, 106:4, 106:6, 116:21, 156:6, 177:7
contiguity [9] - 92:9, 108:23, 109:3, 109:19, 112:15, 121:6, 121:15, 124:17, 198:22
contiguous [6] - 8:4, 22:11, 35:11, 200:17, 220:11, 220:14
continually [1] - 25:5
continue [5] - 54:15, 55:17, 189:25, 190:12, 223:20
Continued [2] - 1:17, 5:1
continued [1] - 217:25
continues [1] - 129:20
continuing [1] - 206:19
continuity [1] - 223:23
contrast [1] - 138:16
control [5] - 87:25, 88:9, 137:7, 145:24, 175:18
controlled [1] - 89:22
controlling [1] - 45:11
controversy [2] - 175:17, 230:14
convenience [1] - 116:1
converge [1] - 113:9
conversant [3] - 18:18, 18:22, 18:25
conversation [5] - 60:21, 61:9, 104:16,

117:16, 150:20
convex [2] - 150:4, 151:8
copies [1] - 3:22
copy [5] - 121:20, 122:5, 122:9, 149:22, 208:8
core [49] - 92:14, 110:5, 112:24, 114:1, 114:15, 116:10, 117:23, 117:25, 121:16, 121:18, 122:22, 123:16, 136:2, 136:6, 136:7, 136:15, 136:16, 136:20, 137:4, 137:8, 137:10, 138:24, 139:5, 139:12, 139:21, 140:7, 140:11, 140:20, 140:23, 141:9, 141:19, 142:3, 142:15, 142:21, 143:11, 143:21, 144:15, 145:22, 146:2, 146:10, 146:21, 146:22, 147:4, 147:18, 147:20, 186:25, 199:9, 199:12, 222:23
Core [1] - 144:5
cores [1] - 146:6
corner [1] - 161:8
correct [98] - 12:14, 13:4, 14:7, 14:11, 18:5, 24:2, 25:3, 26:1, 26:2, 27:4, 27:10, 31:21, 38:18, 42:7, 45:6, 50:12, 51:16, 51:24, 52:8, 52:20, 56:23, 57:9, 61:14, 61:15, 66:22, 66:25, 69:6, 69:16, 69:17, 71:1, 74:14, 75:11, 75:15, 76:21, 77:15, 80:18, 103:13, 104:6, 106:12, 107:25, 112:5, 119:1, 126:17, 126:20, 128:10, 129:14, 129:15, 131:4, 131:7, 133:7, 137:6, 141:11, 141:14, 142:10, 142:23, 143:18, 143:19, 144:2, 144:3, 145:21, 150:1, 151:18, 152:22, 153:15, 154:9, 164:5, 164:6, 164:17, 164:20, 168:7, 172:12, 175:24, 177:20, 178:18, 179:14, 180:17, 184:24, 185:18, 185:23, 188:1, 191:20, 192:22, 194:2, 194:4, 200:6, 200:7, 212:20, 212:23, 213:8, 213:11, 213:15, 217:11, 219:14, 228:24, 229:5, 229:6, 229:9, 229:15
corrected [10] - 133:6, 134:4, 135:24, 135:25, 141:21, 143:3, 144:13, 144:14, 145:15, 150:8
corrections [4] - 135:17, 141:13, 142:25, 145:19
correctly [5] - 23:20, 56:18, 90:24, 149:3, 171:25
correlated [1] - 91:7
correlation [3] - 46:23, 47:1, 90:13
cost [2] - 75:22, 198:19
council [2] - 49:17, 185:10
Counsel [2] - 2:1, 2:16
counsel [4] - 3:22, 208:14, 230:20, 230:23
count [4] - 111:4, 133:7, 134:8, 160:6
counted [3] - 132:14, 135:9, 199:12
counteract [1] - 12:16
counteracted [1] - 172:10
counties [9] - 15:6, 94:10, 109:23, 138:3, 138:4, 138:16, 138:18, 161:15, 162:6
counting [6] - 131:22, 131:23, 132:6, 132:9, 132:19, 134:8
country [4] - 15:1, 47:6, 71:14, 94:1
county [5] - 31:16, 99:2, 140:4, 140:5, 213:19
COUNTY [1] - 230:2
County [19] - 4:12, 87:1, 99:3, 138:2, 138:11, 138:12, 138:15, 138:17, 140:2, 140:6, 140:19, 144:10, 145:5, 145:13, 161:10, 161:11, 203:9, 203:10, 230:10
countywide [3] - 35:4, 35:19, 214:1
couple [5] - 23:1, 43:13, 185:12, 214:12, 226:14
course [5] - 61:12, 87:10, 117:2, 120:5, 191:16
COURT [1] - 1:1
Court [5] - 1:21, 4:6, 4:8, 10:15, 230:3
court [37] - 7:2, 10:5, 10:13, 11:12, 16:25, 18:16, 20:8, 28:19, 45:22, 46:10, 46:20, 84:7, 84:10, 85:14, 85:23, 85:24, 102:23, 124:21, 129:24, 148:24, 159:2, 160:11, 160:12, 166:17, 166:23, 168:19, 168:25, 169:8, 169:22, 176:20, 182:23, 213:25, 215:25, 217:15, 218:6, 220:7, 224:24
court-drawn [3] - 168:19, 168:25, 169:22
courts [13] - 10:7, 11:1, 85:12, 95:13, 123:11, 123:14, 149:12, 159:3, 217:13, 217:20, 217:25, 218:12, 224:4
covered [2] - 34:19, 216:17
covering [1] - 212:24
cracking [4] - 16:3, 16:16, 148:16, 148:17
create [15] - 21:23, 22:12, 22:14, 22:23, 23:5, 23:6, 23:17, 23:22, 49:23, 50:17, 51:7, 193:21, 200:10, 211:20, 228:1
created [15] - 17:14, 33:14, 50:3, 50:21, 50:24, 100:24, 142:14, 143:13, 145:4, 145:6, 186:3, 199:11, 202:5, 203:23, 210:11
creates [5] - 7:21, 21:21, 22:6, 33:15, 97:25
creating [4] - 7:23, 13:7, 96:14, 133:25
creation [1] - 103:23
criteria [6] - 41:22, 98:6, 103:24, 105:9, 112:14, 159:5
criticism [1] - 90:16
csv [2] - 212:9, 212:11
cultural [1] - 96:6
cumulative [1] - 106:19
curiosity [1] - 46:22
current [2] - 113:20, 181:9
curve [3] - 40:12, 40:13, 40:14
cycle [1] - 152:18
cycles [2] - 160:14, 176:9

D

Dan [2] - 197:14, 209:14
Dane [9] - 4:12, 138:12, 140:19, 144:10, 145:5, 145:13, 203:9, 203:10, 230:10
DANE [1] - 230:2
DANIEL [1] - 5:5
data [43] - 3:15, 27:16, 27:25, 28:18, 30:7, 30:11, 33:2, 35:14, 37:10, 38:2, 38:7, 39:12, 39:20, 42:2, 42:5, 43:10, 48:13, 48:22, 51:17, 51:21, 51:23, 94:12, 141:21, 147:15, 182:1, 187:6, 187:9, 187:18, 187:23, 187:25, 208:14, 208:17, 211:16, 211:18, 211:20, 211:25, 212:8, 212:12, 213:18, 228:5, 228:23, 229:3, 229:5
date [1] - 214:16
DAVID [2] - 1:15, 2:14
DAVIS [1] - 1:5
Davis [1] - 149:1
days [2] - 62:5, 110:17
de [2] - 49:10, 193:25
De [1] - 4:24
DE [1] - 2:8
deal [4] - 32:9, 112:21, 113:10, 155:17
dealing [5] - 11:24, 12:2, 84:8, 106:8, 124:21
dealt [1] - 92:5
decades [1] - 28:13
December [4] - 3:12, 127:12, 173:17, 195:21
decide [9] - 62:13, 66:20, 66:23, 101:6, 104:23, 106:10, 107:18, 109:7, 110:16
decided [1] - 101:24
decides [3] - 66:17, 84:24, 101:9
deciding [2] - 100:23, 102:16
decision [70] - 18:16, 32:18, 46:5, 58:1, 58:2, 58:3, 58:4, 76:1, 102:7, 102:11, 102:13, 102:16, 102:19, 102:25, 103:8, 109:13, 109:16, 110:21, 111:21, 114:4, 114:7, 114:19, 115:1, 115:5, 116:4, 116:7, 116:22, 117:9, 117:14, 117:18, 118:20, 119:1, 119:9, 119:18, 119:19, 119:24, 119:25, 120:12, 124:22, 130:24, 149:4, 158:5, 158:9, 158:11, 159:13, 160:11, 161:17, 162:21, 163:3, 163:6, 163:13, 163:14, 163:23, 163:24, 164:7, 166:4, 176:19, 176:22, 176:24, 177:1, 177:14, 177:21, 178:3, 178:7, 178:9, 223:25, 225:11
decisions [41] - 10:6, 10:13, 10:15, 25:6, 25:9, 39:10, 39:15, 39:17, 46:20, 84:7, 99:6, 101:23, 102:2, 102:4, 102:6, 102:8, 105:2, 105:5, 106:21,

107:1, 107:13, 107:14, 107:17, 107:20, 110:1, 110:3, 116:14, 116:18, 117:3, 119:8, 148:20, 148:25, 153:10, 157:7, 175:11, 217:13, 218:11, 219:18, 221:7, 224:24
Declaratory [1] - 3:17
decline [3] - 137:18, 139:16, 149:13
decreased [1] - 145:11
deep [2] - 15:4, 47:23
defeated [1] - 192:4
defend [1] - 173:25
Defendants [8] - 2:3, 2:6, 2:17, 4:3, 4:5, 5:4, 5:7, 5:11
defensible [6] - 111:21, 112:3, 114:4, 114:5, 118:21, 135:7
defer [1] - 85:12
deference [1] - 85:23
deficiencies [1] - 112:6
defined [1] - 100:9
definition [4] - 65:20, 97:13, 99:20, 134:19
definitive [3] - 91:2, 114:17, 162:25
definitively [2] - 93:8, 93:17
degree [28] - 11:17, 21:25, 26:15, 26:16, 26:19, 27:13, 31:25, 33:2, 37:14, 45:24, 46:6, 46:23, 56:18, 58:16, 78:14, 78:21, 82:19, 85:23, 101:25, 103:7, 109:11, 109:25, 117:4, 118:11, 192:2, 192:16, 195:8, 222:3
DEININGER [2] - 1:15, 2:14
delay [2] - 152:20, 170:25
delayed [34] - 114:21, 117:24, 118:1, 120:16, 120:19, 130:21, 152:15, 152:25, 153:17, 154:8, 154:21, 154:23, 155:12, 155:18, 156:3, 156:13, 159:8, 164:23, 165:3, 165:8, 165:25, 166:7, 166:18, 166:24, 167:2, 167:11, 167:22, 168:6, 168:18, 168:24, 170:3, 170:7, 172:14, 178:10
delaying [1] - 169:9
delta [1] - 143:19
delusion [1] - 15:14
democrat [2] - 89:16, 165:10
democratic [20] - 44:21, 47:3, 47:5, 89:19, 90:8, 136:18, 137:11, 138:18, 139:12, 140:9, 141:3, 141:5, 144:11, 147:12, 164:20, 165:21, 165:23, 166:3, 166:19, 166:23
democrats [10] - 90:11, 136:22, 141:10, 145:17, 145:23, 147:19, 148:16, 148:17, 166:8, 175:15
demographic [2] - 52:1, 97:15
demographics [1] - 31:19
demonstrate [1] - 54:1
denied [5] - 58:12, 59:13, 159:15, 159:16, 172:23
deny [1] - 69:15
denying [3] - 15:16, 68:10, 69:22
DEPARTMENT [1] - 5:3
department [1] - 15:8
Department [1] - 6:13
dependent [1] - 91:8
depict [1] - 78:21
deponent [1] - 6:22
deposed [6] - 6:4, 6:9, 6:10, 6:16, 6:17, 6:18
DEPOSITION [2] - 1:18, 4:1
deposition [10] - 3:24, 18:4, 90:18, 127:5, 150:25, 207:13, 208:3, 215:3, 230:17, 230:22
depositions [3] - 6:21, 147:6, 215:20
derive [1] - 198:11
derived [1] - 95:16
deriving [1] - 37:19
describe [4] - 18:15, 38:20, 77:18, 78:18
described [5] - 37:22, 38:1, 80:17, 88:1, 210:22
describes [1] - 77:22
describing [2] - 38:17, 85:8
description [1] - 204:23
Description [1] - 3:10
descriptions [1] - 107:5
designate [1] - 144:3
designates [1] - 94:19
designation [2] - 100:8, 212:12
designed [2] - 78:14, 222:17
desire [1] - 197:4
detail [1] - 56:5
deteriorate [1] - 35:15
deterioration [1] - 35:20
determination [12] - 27:14, 29:19, 41:12, 60:12, 84:3, 84:17, 84:18, 119:11, 119:16, 166:2, 182:2, 182:3
determinative [1] - 190:21
determine [9] - 26:13, 47:13, 83:18, 83:25, 85:2, 98:23, 109:9, 118:25, 185:19
determining [7] - 45:2, 46:13, 95:13, 97:24, 136:9, 180:18, 181:5
DEUREN [1] - 5:6
developed [3] - 30:4, 63:9, 217:24
deviation [5] - 11:2, 11:6, 11:13, 12:18, 221:15
deviations [7] - 8:22, 9:17, 10:8, 10:23, 12:5, 221:10, 221:14
devise [1] - 97:2
devised [1] - 220:10
differ [6] - 30:14, 42:22, 65:16, 144:22, 160:22, 199:7
differed [1] - 199:9
difference [26] - 8:16, 8:23, 43:15, 64:2, 64:3, 65:13, 88:24, 89:10, 89:14, 89:15, 89:18, 90:8, 91:1, 118:14, 121:3, 121:4, 138:7, 141:1, 141:8, 154:1, 154:5, 198:13, 198:15, 199:16, 200:19
differences [8] - 8:15, 9:1, 31:8, 63:18, 63:22, 85:22, 119:7, 175:3
different [86] - 8:11, 9:7, 16:13, 19:7, 27:8, 30:8, 32:15, 32:17, 33:21, 33:22, 34:3, 39:16, 39:21, 40:8, 40:15, 41:9, 41:10, 47:25, 49:21, 49:22, 55:6, 68:11, 77:18, 77:23, 78:1, 78:17, 78:18, 78:24, 78:25, 79:1, 79:3, 79:13, 79:14, 80:23, 80:25, 81:8, 81:9, 81:10, 81:16, 82:10, 85:24, 87:18, 88:22, 95:17, 96:18, 97:2, 99:23, 100:13, 101:13, 101:14, 102:6, 105:7, 107:19, 111:24, 112:20, 113:9, 117:2, 117:3, 119:8, 134:7, 134:13, 136:11, 143:14, 144:23, 144:24, 154:25, 155:6, 155:7, 156:2, 164:19, 169:15, 189:4, 189:20, 195:7, 195:8, 195:13, 212:4, 212:24, 213:1, 216:23, 219:7, 222:6, 222:18
differential [3] - 138:22, 145:10, 147:23
differently [2] - 120:13, 147:14
differing [1] - 101:8
difficult [11] - 9:24, 9:25, 38:20, 97:1, 97:3, 101:12, 113:1, 115:4, 134:25, 136:4, 189:24
difficulties [2] - 11:19, 11:20
digits [1] - 10:8
diluting [2] - 15:19, 15:23
dimension [3] - 40:14, 78:6, 165:18
dimensions [2] - 198:21, 199:1
diminish [2] - 155:9, 172:22
direct [3] - 62:18, 62:19, 155:2
direction [3] - 107:18, 117:14, 211:10
directly [7] - 38:11, 61:19, 65:11, 107:14, 176:4, 199:5, 200:4
Director [2] - 2:1, 2:15
Dirichlet [1] - 40:16
disadvantaged [2] - 17:24, 58:22
disadvantages [1] - 58:6
disagree [4] - 117:24, 164:3, 169:2, 183:8
disagreement [1] - 119:22
disappears [1] - 142:8
discern [1] - 59:9
discovered [2] - 135:19, 229:12
discovery [1] - 229:8
discrepancies [1] - 143:13
discrimination [4] - 19:20, 58:24, 65:4, 65:7
discussed [4] - 201:7, 217:3, 219:2, 222:10
discusses [1] - 131:5
discussing [1] - 92:23
discussion [5] - 118:9, 118:10, 138:1, 150:18, 209:17
disenfranchise [3] - 92:17, 119:12, 154:11
disenfranchised [16] - 110:11, 119:15, 121:2, 155:11, 156:10, 156:11, 159:11, 161:6, 161:18, 165:6, 167:17, 167:19, 169:12, 169:20,

177:9, 177:17
disenfranchisement [10] - 116:12, 155:2, 157:9, 160:5, 165:10, 165:11, 165:17, 171:23, 177:3, 177:13
disenfranchising [3] - 118:12, 130:6, 162:19
disfranchising [1] - 110:7
disk [2] - 211:18, 211:23
dismiss [2] - 159:15, 159:16
disparities [2] - 72:21, 73:16
disparity [4] - 73:17, 76:23, 141:23, 146:19
dispersed [1] - 83:11
dispersion [2] - 82:22, 83:10
displays [1] - 210:9
disproportionally [1] - 76:8
dispute [1] - 174:12
distance [2] - 83:7, 83:8
distinct [1] - 23:15
distinction [11] - 20:2, 52:25, 62:8, 68:6, 68:7, 76:14, 76:20, 77:1, 102:15, 153:25, 162:13
distinctions [2] - 36:17, 69:12
distinguish [3] - 67:18, 120:11, 120:12
distinguishing [1] - 212:15
distribute [1] - 16:16
distributed [3] - 34:9, 35:3, 87:11
distribution [8] - 13:9, 37:24, 38:7, 40:10, 40:16, 40:19, 41:10
distributions [2] - 30:8, 37:9
District [36] - 4:6, 4:7, 54:10, 178:15, 179:9, 179:17, 179:25, 180:4, 180:6, 180:12, 180:21, 180:24, 181:7, 181:10, 182:7, 183:2, 183:16, 184:4, 184:23, 185:2, 185:7, 185:9, 185:20, 186:3, 186:6, 186:9, 186:22, 187:4, 187:7, 187:19, 187:24, 188:20, 190:23, 191:22, 205:24, 213:20
DISTRICT [2] - 1:1, 1:1
district [247] - 7:22, 7:24, 9:2, 9:3, 9:24, 11:2, 11:21, 11:24, 12:2, 13:8, 14:5, 16:1, 16:5, 16:11, 16:18, 16:22, 17:13, 18:14, 19:5, 19:9, 20:1, 20:8, 21:4, 22:7, 22:15, 22:21, 23:6, 23:7, 23:9, 23:13, 23:14, 23:18, 23:23, 24:12, 24:19, 30:23, 33:4, 33:6, 33:8, 37:19, 41:18, 42:7, 46:19, 49:23, 50:3, 50:16, 50:20, 50:24, 51:7, 53:9, 53:13, 53:16, 53:22, 53:24, 54:6, 54:13, 55:7, 55:16, 55:24, 56:5, 56:8, 56:11, 56:14, 66:8, 66:9, 66:14, 66:15, 66:19, 68:21, 69:1, 78:4, 78:5, 78:7, 78:10, 78:11, 78:15, 78:21, 78:23, 79:10, 79:23, 79:25, 80:1, 80:7, 80:9, 80:13, 82:14, 82:19, 83:1, 83:2, 83:4, 83:7, 83:11, 83:18, 83:21, 83:25, 84:19, 84:25, 85:3, 85:15, 86:12, 87:1, 87:4, 87:16, 88:2, 89:9, 89:23, 92:14, 92:20, 95:13, 96:14, 97:8, 98:25, 99:4, 103:18, 105:3, 106:14, 107:1, 108:24, 108:25, 109:14, 109:17, 110:6, 112:11, 112:12, 113:6, 113:7, 113:12, 113:13, 116:10, 119:13, 121:19, 122:23, 124:24, 131:6, 131:11, 131:19, 131:24, 131:25, 132:2, 132:5, 132:8, 132:9, 132:10, 132:13, 132:14, 132:15, 132:18, 132:20, 132:21, 133:22, 134:14, 135:1, 135:2, 135:8, 136:10, 136:11, 136:12, 138:24, 139:3, 139:8, 141:25, 142:14, 142:15, 142:17, 142:19, 142:21, 143:11, 144:12, 146:6, 146:7, 146:10, 146:18, 150:5, 151:15, 152:19, 152:20, 153:13, 157:4, 157:5, 157:10, 157:11, 157:12, 157:14, 157:15, 157:16, 157:22, 161:11, 161:12, 161:15, 161:17, 171:12, 171:15, 171:16, 172:8, 172:19, 173:8, 173:9, 173:10, 183:1, 186:24, 186:25, 188:10, 188:12, 188:13, 188:21, 189:5, 189:6, 189:7, 189:19, 189:23, 190:8, 190:11, 193:17, 193:22, 197:9, 198:15, 199:9, 199:11, 200:14, 201:8, 202:6, 203:4, 203:15, 203:16, 203:17, 203:21, 204:7, 204:13, 204:18, 206:1, 214:4, 220:3, 224:18, 225:16, 225:24, 226:8, 228:2, 228:3
districting [1] - 142:15
districts [176] - 8:2, 8:4, 8:18, 8:19, 8:24, 9:12, 9:20, 9:25, 11:18, 13:9, 13:16, 13:22, 14:22, 16:12, 16:14, 21:7, 21:10, 21:22, 22:3, 22:13, 24:14, 29:5, 33:16, 33:18, 34:19, 34:20, 41:21, 49:7, 49:12, 49:15, 49:19, 49:21, 52:7, 66:3, 66:5, 77:13, 84:9, 84:11, 84:14, 84:16, 86:6, 86:14, 86:17, 87:9, 88:5, 88:8, 88:19, 88:22, 89:6, 89:7, 89:17, 89:19, 90:9, 90:11, 92:24, 93:1, 93:4, 93:12, 93:22, 93:23, 94:2, 94:4, 94:8, 94:9, 94:16, 94:17, 94:25, 95:3, 95:9, 95:20, 95:22, 96:15, 96:18, 99:1, 99:5, 103:22, 105:8, 106:1, 106:11, 106:13, 106:25, 109:10, 110:23, 113:8, 114:15, 126:24, 132:7, 136:21, 137:12, 137:14, 139:4, 139:9, 139:16, 139:25, 140:9, 140:25, 141:1, 141:3, 143:21, 144:9, 144:12, 145:2, 146:5, 146:12, 147:13, 147:14, 148:15, 159:1, 161:20, 161:23, 169:24, 170:5, 173:13, 173:15, 174:7, 177:4, 179:9, 180:9, 180:10, 185:11, 192:22, 192:25, 193:16, 193:20, 195:7, 195:10, 195:14, 197:18, 198:13, 199:4, 199:5, 199:21, 199:22, 200:3, 200:5, 200:11, 200:15, 200:17, 201:10, 201:20, 202:1, 202:5, 202:11, 202:22, 202:25, 203:2, 203:10, 203:11, 203:22, 203:24, 204:2, 204:9, 204:15, 204:16, 204:20, 205:11, 206:15, 206:17, 215:7, 215:12, 219:4, 219:5, 219:10, 220:10, 220:14, 221:1, 221:2, 221:12, 221:16, 222:18, 222:25, 226:3, 227:15, 227:21, 229:14
Districts [7] - 178:13, 203:1, 210:13, 210:16, 213:5, 213:7, 213:10
diversion [1] - 107:22
divide [2] - 67:2, 205:13
divided [6] - 111:8, 111:10, 133:10, 134:9, 151:15, 205:22
dividing [1] - 205:24
divisible [1] - 221:18
division [1] - 145:12
Doctor [1] - 6:3
document [2] - 70:20, 194:23
documentation [1] - 68:18
documents [19] - 3:19, 62:7, 70:5, 70:16, 71:6, 71:15, 72:6, 72:23, 72:24, 73:2, 73:10, 73:14, 75:17, 207:14, 207:24, 208:2, 209:1, 215:2, 215:9
done [18] - 20:10, 30:16, 31:17, 31:21, 38:3, 48:19, 56:15, 61:24, 69:25, 100:19, 108:7, 136:15, 179:20, 181:20, 182:3, 193:10, 215:22, 225:23
Door [1] - 87:1
DOT [1] - 75:25
double [8] - 28:22, 37:4, 128:11, 131:22, 133:7, 134:8, 135:9, 206:4
double-check [2] - 128:11, 206:4
Doug [1] - 91:14
DOUGLAS [1] - 4:19
down [13] - 7:2, 7:6, 11:1, 11:12, 25:6, 110:15, 116:15, 134:16, 142:3, 145:14, 191:14, 201:11, 221:14
downtown [1] - 99:13
DPW [1] - 2:12
Dr [6] - 6:2, 17:5, 52:16, 214:25, 226:19, 228:25
drafted [1] - 165:20
dramatic [4] - 146:7, 146:8, 202:2, 220:2
dramatically [2] - 146:11, 146:14
draw [33] - 13:22, 16:12, 19:9, 20:8, 49:11, 49:20, 50:2, 62:8, 68:7, 79:24, 80:7, 105:2, 105:8, 106:1, 107:12, 108:2, 110:16, 111:16, 112:12, 113:6, 126:21, 139:7, 148:14, 155:6,

169:19, 197:11, 197:21, 198:17, 199:2, 200:2, 200:23, 201:16, 218:9
drawer [4] - 113:18, 114:12, 146:20, 156:1
drawers [7] - 8:22, 14:18, 20:21, 20:22, 94:11, 146:5, 147:6
drawing [39] - 8:12, 9:1, 14:5, 14:21, 15:25, 50:8, 66:3, 66:9, 68:21, 68:25, 85:15, 86:1, 93:19, 94:8, 94:15, 105:4, 105:17, 106:11, 106:20, 106:25, 110:12, 110:22, 113:5, 113:8, 116:24, 117:8, 117:17, 117:19, 124:24, 136:3, 139:8, 148:15, 153:13, 154:18, 218:3, 218:25, 222:12, 224:5, 225:14
drawn [20] - 8:19, 20:13, 20:16, 22:3, 34:20, 66:5, 99:1, 106:15, 111:2, 112:2, 126:18, 136:12, 159:11, 161:5, 168:14, 168:19, 168:25, 169:22, 219:10, 220:14
draws [2] - 91:25, 121:18
drew [7] - 20:22, 85:1, 87:1, 101:23, 144:2, 147:17, 225:24
drive [3] - 109:16, 142:3, 221:13
driver's [9] - 70:19, 70:23, 72:10, 72:14, 73:22, 73:23, 76:22, 76:24, 77:6
drives [2] - 32:18, 32:20
driving [1] - 147:3
drop [1] - 141:19
dropped [1] - 186:21
dropping [1] - 141:24
drove [2] - 145:13, 145:15
drudge [1] - 24:23
due [2] - 44:8, 60:3
DUFFY [1] - 2:5
duly [3] - 5:18, 230:4, 230:12
during [4] - 6:18, 161:12, 175:8, 176:5
DVD [7] - 3:19, 133:13, 135:11, 142:6, 205:6, 208:19, 208:23
dynamic [3] - 106:14, 106:16, 107:4

E

E-mailed [2] - 208:14, 208:17
EARLE [58] - 4:22, 4:23, 24:21, 45:9, 45:13, 46:16, 55:3, 59:20, 60:24, 61:6, 64:23, 68:3, 71:8, 74:6, 81:18, 84:22, 96:24, 98:2, 98:9, 103:4, 111:12, 115:18, 115:21, 115:25, 116:25, 118:7, 119:6, 120:1, 120:6, 120:21, 121:25, 122:3, 122:7, 122:13, 125:3, 127:2, 127:4, 133:11, 158:1, 163:15, 164:13, 175:1, 180:25, 184:8, 184:13, 186:1, 186:13, 189:9, 190:15, 191:5, 191:8, 191:19, 194:11, 202:19, 207:3, 210:3, 226:13, 229:20
early [1] - 107:2
ease [2] - 62:6, 81:24
easier [1] - 121:20
easily [4] - 114:18, 172:19, 183:11, 213:23
East [4] - 4:11, 4:20, 5:10, 230:9
EASTERN [1] - 1:1
Eastern [1] - 4:7
easy [1] - 27:22
ECKSTEIN [1] - 1:5
ecological [10] - 28:11, 28:12, 37:22, 38:16, 38:24, 39:8, 45:2, 45:16, 210:10, 210:17
economic [5] - 96:6, 97:14, 98:22, 99:17, 101:20
edge [1] - 113:7
education [9] - 58:23, 59:22, 60:17, 60:20, 63:5, 63:15, 63:23, 63:24, 64:5
effect [10] - 15:11, 15:15, 15:19, 105:6, 131:11, 149:2, 168:12, 168:14, 204:21, 204:23
effected [1] - 202:8
effective [8] - 53:24, 167:23, 179:8, 188:10, 188:11, 188:21, 189:2, 189:5
effects [2] - 107:15, 202:24
efficacy [1] - 225:18
effort [4] - 13:18, 20:23, 105:18, 124:2
efforts [2] - 28:14, 175:13
EI [10] - 36:25, 37:8, 37:11, 37:18, 38:18, 39:19, 41:1, 41:6, 210:9, 211:6
eight [4] - 54:12, 127:17, 221:16, 221:18
eighth [1] - 152:8
either [20] - 51:3, 55:10, 65:8, 81:25, 83:9, 90:22, 122:21, 138:9, 138:10, 140:3, 148:19, 171:15, 172:4, 176:7, 194:5, 211:12, 212:12, 213:25, 221:14, 229:1
elect [29] - 15:17, 16:10, 16:20, 21:18, 53:3, 54:3, 54:7, 54:21, 55:1, 58:13, 59:13, 65:21, 69:4, 69:9, 157:3, 172:18, 178:17, 178:22, 179:1, 185:16, 185:21, 186:7, 186:10, 188:19, 191:1, 191:18, 191:24, 192:8, 193:14
elected [22] - 55:16, 136:23, 157:4, 173:14, 173:15, 173:20, 173:23, 183:3, 183:5, 183:7, 183:13, 183:25, 184:6, 184:9, 184:14, 184:23, 190:1, 190:23, 191:21, 223:3, 223:5
electing [1] - 53:12
election [25] - 39:20, 42:25, 43:11, 43:25, 55:10, 62:3, 170:9, 170:25, 171:1, 172:19, 172:24, 173:4, 173:7, 173:12, 174:1, 174:21, 174:25, 175:7, 175:8, 176:7, 176:8, 190:4, 213:23, 224:1
elections [12] - 15:3, 92:17, 92:21, 158:7, 170:5, 170:16, 170:23, 171:10, 175:4, 175:6, 175:10, 176:4
electoral [1] - 62:22
electorate [4] - 45:5, 45:20, 46:11, 54:2
element [1] - 224:11
elements [3] - 18:17, 79:18, 84:23
eleven [2] - 152:10, 152:11
eleventh [1] - 152:9
eligible [4] - 68:22, 76:25, 178:25, 179:7
eliminate [1] - 140:17
eliminated [1] - 203:23
elongated [1] - 78:5
elongation [1] - 79:11
elsewhere [2] - 35:12, 141:16
ELVIRA [1] - 1:4
embodied [2] - 153:4, 153:8
emergent [1] - 163:16
empirical [6] - 18:11, 26:8, 26:13, 52:20, 64:3, 147:12
empirically [3] - 39:6, 54:24, 58:8
empirics [1] - 27:2
employed [4] - 43:2, 43:3, 230:20, 230:24
employee [1] - 230:23
enacted [3] - 24:12, 131:9, 168:12
encapsulated [1] - 214:17
encompass [1] - 83:12
encompassed [1] - 191:22
encompasses [1] - 181:19
encompassing [1] - 213:3
end [6] - 19:17, 118:9, 174:16, 194:25, 209:24, 224:7
engaged [2] - 176:6, 190:5
engagement [2] - 62:16, 175:21
engages [1] - 56:8
enormous [1] - 175:17
enormously [1] - 40:17
ensure [2] - 39:4, 222:18
entered [1] - 132:20
entering [1] - 131:25
enters [2] - 117:5, 117:7
entire [7] - 99:2, 108:2, 112:4, 177:12, 194:23, 201:24, 201:25
entirely [8] - 7:14, 52:15, 94:13, 114:2, 140:1, 203:19, 220:17, 224:2
entities [1] - 65:7
enumeration [1] - 181:12
environmental [2] - 96:6, 101:20
envision [2] - 114:18, 156:11
envisioning [2] - 19:6, 19:7
equal [53] - 8:1, 8:20, 8:25, 9:13, 9:22, 11:17, 13:8, 13:15, 13:22, 14:1, 15:17, 16:9, 17:25, 24:5, 53:2, 58:12, 59:13, 65:21, 68:11, 68:20, 69:9, 69:15, 69:22, 91:23, 92:8, 97:3, 97:4, 97:6, 103:9, 103:14, 104:10, 104:17, 108:18, 112:15, 114:8, 114:10, 115:9, 124:17, 147:9, 157:17, 178:21, 185:16, 185:21, 186:10, 188:18, 190:12, 191:1, 191:17, 191:24, 192:8, 217:23, 221:3, 222:17
equality [23] - 8:17, 9:19, 10:1, 12:14, 12:23, 12:25, 13:19,

105:24, 106:24, 131:9, 134:18, 134:19, 135:5, 201:9, 201:12, 201:18, 204:8, 204:10, 204:11, 215:11, 220:1, 227:7, 227:14
equalization [1] - 140:16
equalize [2] - 158:24, 197:23
equalizing [3] - 12:10, 159:6, 198:8
equally [1] - 221:18
equations [1] - 151:16
equilibrium [1] - 205:3
ERICA [1] - 2:9
errors [4] - 37:12, 37:17, 135:19, 145:7
especially [4] - 36:9, 43:16, 189:2, 202:12
essentially [5] - 169:12, 200:17, 203:11, 205:25, 206:5
establish [3] - 73:20, 75:18, 179:8
established [6] - 16:25, 17:9, 53:17, 63:19, 70:20, 124:22, 149:4, 222:4
establishing [3] - 29:16, 94:21, 177:16
estimate [10] - 28:24, 30:9, 36:21, 37:9, 37:20, 38:10, 42:15, 63:4, 83:5, 211:4
estimates [20] - 29:21, 30:22, 37:1, 37:5, 37:13, 37:16, 39:5, 40:11, 40:20, 41:7, 41:11, 42:21, 55:21, 91:9, 181:23, 188:4, 199:19, 210:19, 211:1, 213:1
estimating [1] - 40:21
et [6] - 4:3, 4:5, 4:21, 4:25, 72:11, 138:19
eternity [1] - 207:2
ethnic [1] - 48:4
ethnicity [3] - 28:9, 181:15, 188:24
EVANJELINA [1] - 1:4
event [1] - 201:16
eventually [1] - 205:2
evidence [13] - 17:22, 17:23, 27:4, 36:6, 47:15, 55:17, 58:5, 58:9, 68:15, 73:13, 75:6, 169:13, 169:18
exact [4] - 8:3, 94:25, 95:3, 95:22
exactly [10] - 8:25, 9:22, 24:19, 85:5, 107:11, 110:24, 144:10, 184:12, 198:11, 221:3
Examination [3] - 3:4, 3:5, 3:6
examination [1] - 230:16
EXAMINATION [3] - 5:21, 216:11, 226:17
examined [1] - 230:15
example [19] - 13:11, 22:4, 44:25, 62:2, 63:6, 78:2, 105:14, 106:9, 108:16, 110:4, 115:4, 132:18, 161:7, 193:15, 213:19, 219:8, 223:11, 224:16
examples [2] - 126:10, 205:16
except [1] - 209:1
exception [3] - 70:12, 170:10, 208:4
exceptions [2] - 109:1, 121:14
excess [1] - 193:12
excessive [1] - 225:9
excluded [1] - 91:4
exclusive [1] - 219:15
exclusively [1] - 190:23
exercise [2] - 155:3, 171:20
exhibit [6] - 132:18, 142:24, 143:6, 151:24, 187:15, 196:20
Exhibit [45] - 127:7, 128:7, 128:22, 129:10, 129:16, 131:2, 133:20, 135:12, 135:15, 135:23, 136:1, 141:7, 143:7, 143:9, 145:18, 145:20, 149:16, 150:14, 159:19, 176:15, 187:6, 194:13, 196:12, 196:15, 196:19, 197:13, 202:21, 205:9, 207:6, 207:9, 207:17, 207:21, 207:25, 208:20, 208:23, 208:25, 209:1, 209:7, 209:10, 209:12, 209:21, 210:7, 216:19, 226:21
exhibits [1] - 3:22
Exhibits [1] - 194:9
exist [2] - 21:10, 32:11
existed [2] - 142:14, 210:12
existence [1] - 30:3
existing [7] - 8:5, 54:6, 54:14, 198:12, 202:6, 217:7, 223:20
exists [3] - 20:1, 59:16, 182:2
expand [1] - 139:17
expect [3] - 140:6, 140:13, 141:18
expectation [2] - 140:22, 226:7
expected [3] - 138:24, 139:11, 175:20
expensive [1] - 72:17
experience [12] - 14:13, 14:18, 47:23, 51:25, 63:9, 110:14, 159:8, 165:3, 168:18, 170:3, 170:7, 204:4
experienced [8] - 6:22, 27:17, 47:11, 138:4, 165:25, 166:18, 167:2, 168:24
experiencing [3] - 165:8, 166:7, 167:22
expert [12] - 3:12, 18:13, 52:13, 86:3, 127:12, 133:3, 158:17, 164:14, 194:18, 208:5, 214:15, 215:15
expertise [2] - 24:9, 85:19
expires [1] - 231:6
explain [1] - 44:22
explanation [3] - 171:4, 227:8, 227:13
explore [1] - 104:3
express [1] - 214:21
expressed [2] - 26:8, 27:16
extend [3] - 105:3, 140:5
extending [1] - 55:13
extends [2] - 56:10, 87:3
extension [3] - 40:6, 212:5, 215:22
extensions [1] - 39:25
extent [9] - 17:4, 18:22, 64:24, 67:25, 111:15, 129:12, 137:24, 149:10, 223:23
external [1] - 114:6
extra [1] - 157:24
extract [2] - 38:4, 39:2
extraordinary [7] - 148:7, 160:5, 160:9, 161:3, 166:9, 166:20, 167:6
extras [1] - 208:11
extreme [1] - 225:13
extremely [2] - 148:6, 225:10
eyes [4] - 163:7, 163:8, 163:11, 171:24

F

face [2] - 58:6, 173:23
faced [1] - 116:18
faces [1] - 170:24
facilitate [1] - 224:8
fact [31] - 12:17, 13:23, 54:9, 54:25, 55:15, 64:3, 94:13, 116:14, 129:24, 142:21, 144:21, 147:12, 154:6, 169:6, 170:23, 171:14, 171:20, 172:7, 172:10, 173:21, 173:24, 174:6, 175:3, 176:3, 180:5, 180:11, 186:6, 190:22, 191:21, 218:5, 219:16
factor [11] - 35:25, 62:15, 63:18, 65:8, 96:13, 113:14, 130:23, 141:24, 147:11, 188:15, 225:11
factors [59] - 7:22, 8:7, 9:10, 11:11, 13:2, 13:10, 13:12, 13:14, 14:4, 19:24, 20:15, 44:14, 46:3, 60:3, 60:13, 61:21, 61:23, 62:11, 63:23, 64:6, 64:16, 64:21, 65:4, 69:13, 78:17, 88:23, 92:4, 92:6, 93:15, 100:21, 101:1, 104:4, 104:8, 104:21, 105:14, 106:4, 107:25, 108:4, 108:13, 108:21, 112:24, 113:14, 114:6, 114:25, 115:2, 115:7, 116:23, 117:7, 136:2, 136:5, 137:3, 137:8, 137:20, 188:16, 192:1, 217:11, 217:15, 218:4, 224:13
facts [1] - 106:8
failed [1] - 85:4
failure [2] - 12:17, 227:7
fair [23] - 18:21, 19:24, 22:4, 24:16, 24:20, 45:18, 46:9, 50:2, 52:12, 57:20, 59:15, 93:12, 95:25, 100:10, 106:15, 108:15, 125:7, 153:4, 169:5, 183:14, 184:25, 218:18, 223:17
fairly [4] - 60:14, 88:20, 203:3, 218:17
faithfully [2] - 97:8, 97:22
fall [1] - 79:2
falloff [1] - 175:6
falls [1] - 93:13
familiar [9] - 82:21, 93:9, 123:5, 157:8, 182:17, 182:20, 218:6, 218:24, 224:16
familiarity [1] - 48:18
far [17] - 11:7, 14:14, 25:10, 46:3, 68:20, 83:4, 119:14, 121:13, 123:4, 125:8, 139:17, 139:19, 174:20, 179:20, 212:16, 221:11, 229:11
fashion [1] - 99:11
fast [1] - 9:15
feature [1] - 212:16
features [1] - 79:17
federal [24] - 8:8, 8:13, 10:17, 10:18, 14:6, 14:8, 92:12, 93:6, 94:3, 94:24, 95:13, 122:21, 124:10, 158:23, 159:3, 167:9, 169:8, 217:12, 217:21,

218:12, 220:7, 220:19, 220:21, 224:3
felt [2] - 105:21, 215:21
few [11] - 6:22, 8:24, 9:10, 18:2, 63:5, 110:8, 121:6, 130:7, 167:12, 201:21, 216:15
fewer [4] - 119:14, 154:11, 154:12, 159:11
fidelity [1] - 217:16
figure [10] - 31:18, 102:20, 109:20, 131:16, 131:21, 133:21, 134:23, 181:14, 190:7, 198:11
figures [3] - 42:6, 141:9, 200:3
File [1] - 1:12
file [6] - 141:21, 195:22, 208:13, 212:5, 212:12, 212:13
filed [2] - 3:24, 214:18
files [8] - 133:2, 152:9, 195:25, 208:12, 208:14, 208:17, 212:5, 212:9
Files [1] - 211:24
fill [1] - 38:12
final [4] - 37:17, 116:4, 173:22, 221:20
finally [1] - 127:3
finance [1] - 6:14
financially [1] - 230:24
fine [9] - 19:1, 61:8, 86:2, 149:24, 150:25, 165:14, 184:18, 187:17, 192:7
finish [1] - 130:4
firm [2] - 10:12, 115:5
first [28] - 5:18, 13:17, 17:11, 19:1, 21:2, 22:16, 22:24, 23:24, 67:3, 68:25, 85:15, 97:11, 131:3, 160:19, 168:13, 168:15, 176:18, 183:3, 197:6, 199:20, 205:16, 210:17, 212:14, 212:17, 213:2, 214:25, 221:22, 221:25
fits [3] - 38:7, 40:19, 121:14
five [3] - 107:19, 203:15, 214:10
fixed [2] - 170:23, 172:18
flaws [3] - 29:20, 128:4, 227:4
fleshed [1] - 217:20
focused [5] - 33:23, 128:16, 166:15, 175:13, 175:14
FOLEY [1] - 5:9
follow [4] - 47:18, 109:15, 125:8, 202:8
following [2] - 163:22, 230:10
follows [2] - 5:19, 205:16
Footnote [1] - 220:25
forced [1] - 222:5
foreign [1] - 75:20
forenoon [2] - 4:14, 230:8
forge [1] - 97:18
forgotten [1] - 163:20
form [64] - 19:4, 21:6, 24:21, 25:17, 39:14, 45:10, 46:16, 55:3, 57:7, 59:20, 64:12, 64:24, 67:25, 68:23, 71:8, 73:3, 74:6, 81:18, 84:20, 85:20, 88:13, 96:24, 98:2, 98:7, 103:3, 104:24, 109:10, 111:12, 116:25, 118:5, 119:4, 120:2, 120:8, 120:20, 125:18, 126:5, 127:2, 148:1, 155:23, 156:4, 158:15, 162:23, 163:15, 164:2, 164:11, 166:11, 167:16, 167:24, 175:1, 175:25, 177:25, 181:13, 181:17, 182:8, 185:24, 186:14, 189:9, 190:16, 191:6, 191:9, 191:19, 201:2, 206:8, 225:21
formal [2] - 50:14, 60:17
formalities [1] - 6:20
formally [2] - 68:13, 129:8
forming [2] - 71:2, 204:15
forms [6] - 70:16, 72:9, 72:13, 72:25, 73:8, 73:18
formulate [1] - 229:13
forth [6] - 60:18, 78:13, 114:9, 137:18, 148:18, 148:21
forward [3] - 190:6, 190:8, 224:9
foundation [3] - 25:17, 166:12, 191:6
foundational [3] - 73:2, 73:10, 73:14
four [23] - 104:11, 107:19, 130:5, 149:25, 151:16, 151:17, 151:19, 152:12, 152:17, 156:17, 156:19, 156:24, 157:1, 157:4, 157:6, 170:18, 170:22, 171:1, 172:1, 174:3, 174:16, 217:9, 218:21
four-year [2] - 152:17, 174:16
Fox [1] - 206:9
fraction [5] - 83:13, 131:13, 161:1, 167:13, 199:14
Fredonia [1] - 5:14
free [3] - 75:24, 76:2, 228:14
freed [1] - 228:8
freely [1] - 212:2
frequently [1] - 37:4
friend [1] - 90:18
front [9] - 93:16, 121:21, 122:16, 125:5, 159:17, 208:22, 216:22, 219:18, 226:20
Frontera [3] - 4:24, 49:10, 193:25
FRONTERA [1] - 2:8
frustrate [1] - 54:2
frustrated [1] - 54:25
frustrates [1] - 54:20
full [9] - 131:3, 137:14, 160:19, 176:18, 178:3, 197:1, 219:23, 221:22, 221:25
fully [1] - 71:10
function [4] - 62:10, 62:14, 62:19, 196:8
future [2] - 190:11, 191:2

G

Gaddie [8] - 89:13, 90:17, 117:17, 117:20, 143:12, 143:25, 144:22, 170:2
Gaddie's [1] - 144:19
gaining [1] - 145:13
Gary [1] - 30:5
gather [1] - 27:25
gathering [1] - 48:21
General [4] - 2:1, 2:16, 3:25, 5:2
general [9] - 32:5, 42:25, 43:11, 134:20, 144:20, 155:5, 195:9, 204:6, 225:7
generalization [2] - 30:6, 38:1
generalized [1] - 40:15
generally [21] - 7:21, 8:17, 9:19, 15:18, 20:15, 26:8, 26:14, 26:25, 29:25, 40:25, 52:19, 52:21, 64:17, 100:6, 105:12, 105:17, 108:13, 108:20, 178:14, 217:22, 220:8
generate [10] - 40:10, 41:7, 41:10, 42:5, 42:14, 42:15, 88:20, 131:18, 175:20, 199:19
gentleman [1] - 182:17
geo [1] - 215:5
geographic [5] - 83:6, 99:24, 100:3, 100:11, 101:8
geographically [2] - 22:1, 63:11
Georgia [1] - 71:18
GERALD [2] - 1:15, 2:14
gerrymander [1] - 148:22
gerrymandering [2] - 148:9, 149:5
Gingles [24] - 17:7, 17:11, 18:8, 18:13, 19:11, 19:19, 19:24, 20:14, 22:16, 22:25, 23:25, 24:25, 26:3, 28:19, 46:19, 47:9, 52:17, 53:7, 53:25, 54:18, 57:3, 58:3, 58:4, 77:10
gist [1] - 197:3
given [19] - 18:14, 35:1, 43:5, 43:25, 53:8, 55:4, 66:10, 146:24, 153:22, 154:9, 162:8, 162:18, 169:17, 170:17, 179:3, 186:6, 192:16, 193:19, 230:18
glad [1] - 56:6
GLADYS [1] - 1:6
gleaned [1] - 221:5
GLORIA [1] - 1:7
goal [6] - 42:14, 51:1, 51:7, 103:9, 153:20, 177:18, 210:13, 224:17
goals [1] - 106:24
Godfrey [2] - 4:10, 230:8
GODFREY [1] - 4:19
Goodman [2] - 28:22, 37:3
government [4] - 60:4, 60:5, 62:17, 205:14
Government [5] - 1:13, 2:2, 2:12, 2:16, 4:4
governmental [1] - 158:21
governments [1] - 111:2
graduate [1] - 211:8
grants [1] - 85:23
graph [1] - 135:20
grateful [1] - 197:2
Gratz [1] - 131:17
great [2] - 32:9, 209:24
greater [5] - 37:17, 160:24, 161:2, 180:21, 181:8
greatest [1] - 136:10
Grofman [2] - 214:25
grounds [1] - 61:1
group [8] - 26:5, 27:8, 27:9, 27:12, 38:11, 44:16, 58:22, 64:1
groupings [1] - 212:15
groups [13] - 26:9, 26:23, 27:8, 28:6, 28:17, 47:25, 63:20, 63:21, 64:4, 66:13, 68:16, 72:5, 223:12
grow [3] - 138:12, 139:16, 205:1
grown [5] - 51:18,

51:22, 139:6, 182:16, 185:4
grows [1] - 204:24
growth [14] - 49:12, 51:14, 51:19, 52:1, 52:14, 137:17, 137:22, 138:23, 139:11, 142:2, 142:4, 146:9, 200:11, 204:4
guaranteed [1] - 155:3
guess [8] - 102:18, 107:4, 120:2, 163:10, 167:20, 168:4, 204:21, 219:23
guessing [1] - 169:8
guided [1] - 95:12
Gwen [1] - 44:18
GWENDOLYNNE [1] - 1:10

H

habit [1] - 63:9
half [2] - 30:12, 110:25
half-step [1] - 30:12
hand [6] - 12:13, 12:17, 20:7, 20:12, 42:16, 147:15, 154:2, 231:2
handed [7] - 127:9, 128:24, 135:14, 194:15, 196:14, 207:8, 210:6
handful [1] - 33:5
handle [1] - 218:17
handwriting [2] - 127:15, 127:18
Handwritten [1] - 3:11
handwritten [1] - 208:13
happy [1] - 162:3
harbor [2] - 11:10, 112:1
hard [4] - 9:15, 59:6, 209:6, 219:16
harder [1] - 87:8
harm [1] - 172:22
harmful [1] - 155:8
Harvard [1] - 30:4
head [6] - 10:7, 11:6, 115:12, 121:24, 218:15, 220:23
headed [1] - 213:13
heads [1] - 7:5
healthcare [1] - 103:17
hear [3] - 62:20, 126:1, 197:2
heard [3] - 19:11, 69:11, 162:2
hearings [1] - 147:7
Heather [1] - 5:14
heavily [4] - 35:4, 155:13, 155:19, 156:3
held [2] - 159:3, 174:1
help [3] - 115:14, 118:25, 193:18
helpful [2] - 41:16, 132:24
hereby [1] - 230:5
hereto [1] - 230:24
hereunto [1] - 231:1
hesitating [2] - 87:20, 133:4
hexagons [1] - 80:22
hierarchy [1] - 104:7
high [12] - 10:8, 16:6, 29:13, 29:14, 31:25, 33:24, 56:19, 109:8, 175:20, 185:5, 189:22, 202:13
higher [13] - 60:19, 77:8, 146:15, 155:1, 165:7, 186:4, 191:3, 192:18, 192:25, 193:7, 193:13, 193:17
highly [2] - 110:15, 116:20
Hispanic [1] - 191:3
historic [1] - 120:25
historical [1] - 65:6
historically [2] - 54:1, 54:24
hit [1] - 198:24
hold [5] - 18:12, 82:2, 141:6, 151:2, 177:1
homogeneous [7] - 29:1, 30:14, 30:17, 31:5, 31:6, 31:7, 31:11
honest [1] - 196:25
honestly [1] - 166:13
hospitals [1] - 103:17
HOUGH [1] - 1:5
hours [1] - 110:17
house [2] - 94:4, 196:22
huge [1] - 121:2
hull [1] - 151:8
hundred [3] - 33:7, 87:3, 201:21
hundreds [1] - 33:10
hundredths [1] - 160:24
hypothesis [2] - 180:1, 182:5
hypothetical [1] - 156:7
hypotheticals [1] - 120:4

I

I94 [1] - 35:9
ID [25] - 59:5, 68:13, 69:18, 69:23, 70:3, 70:6, 70:10, 70:17, 70:21, 71:4, 71:5, 71:12, 71:17, 71:18, 71:19, 72:1, 72:6, 72:9, 72:10, 72:11, 73:18, 75:12, 75:13, 75:23, 76:9
Idaho [1] - 71:19
idea [5] - 56:4, 57:22, 85:16, 86:13, 96:15
ideal [4] - 78:23, 109:13, 198:14, 200:13
ideally [1] - 77:22
ideas [1] - 117:3
identifiable [8] - 34:7, 34:13, 34:15, 96:8, 98:22, 101:20, 103:16, 111:22
identification [17] - 68:17, 68:19, 71:7, 72:13, 72:25, 73:3, 73:8, 73:11, 127:8, 128:23, 135:13, 143:8, 194:14, 196:13, 207:7, 208:21, 209:22
Identified [1] - 3:10
identified [10] - 87:19, 97:20, 102:2, 142:22, 143:4, 149:25, 151:7, 151:16, 157:25, 202:2
identify [13] - 34:12, 88:21, 90:6, 90:7, 97:11, 101:21, 103:1, 111:25, 114:24, 120:22, 204:3, 211:19, 219:19
identifying [2] - 100:21, 111:8
identity [2] - 70:21, 75:18
Ill [2] - 1:5, 127:25
Illinois [1] - 87:8
illustration [1] - 22:5
imagine [3] - 75:19, 196:8, 220:12
impact [12] - 59:5, 59:6, 70:1, 107:21, 110:4, 116:11, 118:12, 119:8, 119:9, 139:4, 139:9, 155:2
impacted [2] - 61:16, 106:10
impediments [1] - 176:2
implement [1] - 44:13
implicate [6] - 13:18, 65:24, 68:24, 94:7, 223:13, 223:14
implicated [3] - 10:25, 59:25, 158:8
implied [2] - 156:25, 157:2
importance [5] - 104:7, 106:3, 110:2, 177:23, 220:2
important [27] - 12:9, 27:21, 36:24, 36:25, 64:18, 64:20, 81:15, 86:4, 87:18, 87:25, 88:4, 103:24, 105:12, 108:14, 109:5, 114:13, 117:12, 123:12, 130:18, 130:23, 179:10, 189:7, 189:15, 191:10, 198:6, 215:21, 223:16
impose [1] - 176:2
imposed [3] - 64:16, 64:21, 65:5
impressed [3] - 64:7, 64:13, 218:16
impression [1] - 109:10
improve [1] - 29:23
improving [1] - 29:24
inapposite [1] - 158:3
Inc [1] - 4:24
INC [1] - 2:8
incentive [1] - 146:5
include [4] - 36:7, 90:1, 101:1, 217:6
included [4] - 90:4, 91:12, 194:7, 205:23
includes [2] - 122:17, 209:3
including [1] - 219:1
income [6] - 59:22, 63:14, 63:22, 63:25, 64:4, 72:15
incomes [1] - 60:19
incomplete [1] - 120:3
incorporate [1] - 194:6
Incorporating [1] - 68:5
incorrect [5] - 76:17, 91:10, 142:11, 144:18, 172:3
increase [1] - 21:19
increased [5] - 144:15, 179:25, 180:3, 180:12, 180:15
increases [2] - 63:14, 190:19
incumbency [3] - 89:25, 94:12, 144:25
incumbent [6] - 44:21, 89:8, 90:14, 145:1, 224:25, 226:2
incumbent's [1] - 224:19
incumbents [6] - 90:8, 90:9, 190:19, 224:18, 225:8, 225:16
indefensible [3] - 119:19, 163:3, 166:24
independent [4] - 66:16, 90:1, 91:12, 94:21
Indiana [2] - 71:18, 72:20
indicate [2] - 80:3, 177:22
indication [2] - 38:22, 190:25
indirect [1] - 67:13
indirectly [3] - 61:20, 61:21, 62:14
individual [11] - 28:8, 28:16, 66:10, 66:17, 66:20, 86:6, 202:1, 223:10, 223:11, 223:19, 223:25
individuals [14] - 28:17, 131:10, 133:21, 159:8, 165:2, 165:7, 165:25, 166:6, 167:2, 168:18, 170:7, 177:9, 197:18, 197:22
industrial [2] - 96:7, 98:22
industries [1] - 103:16
industry [1] - 103:17
inevitably [1] - 158:25
infer [1] - 144:8

inference [10] - 28:11, 28:12, 37:22, 38:16, 38:24, 39:9, 45:2, 45:17, 210:10, 210:17
inferences [4] - 28:16, 29:6, 35:21, 36:2
inferring [1] - 147:15
inflow [1] - 182:12
influence [2] - 23:5, 44:9
influenced [2] - 35:5, 86:21
influences [1] - 45:4
information [25] - 25:19, 25:21, 31:23, 32:9, 34:1, 34:2, 36:10, 38:4, 39:2, 41:13, 41:23, 41:25, 48:6, 49:25, 55:21, 59:11, 188:23, 189:15, 189:16, 190:19, 191:11, 194:6, 205:23, 209:12, 213:24
informed [2] - 71:10, 148:4
initial [3] - 107:6, 194:18, 216:18
injunctive [1] - 3:17
injury [3] - 172:13, 172:25, 173:2
input [1] - 165:20
insert [1] - 60:25
inside [1] - 204:16
insight [1] - 48:8
instance [6] - 11:4, 85:15, 140:15, 199:8, 206:14, 228:10
instances [5] - 20:20, 193:5, 202:4, 202:5, 221:8
instead [2] - 150:4, 205:12
insufficient [6] - 16:19, 69:1, 142:1, 163:7, 163:8, 217:17
insufficiently [3] - 84:1, 86:19, 95:14
intact [1] - 146:6
integrity [1] - 222:21
intend [3] - 74:18, 125:8, 128:18
intensive [1] - 88:21
intent [1] - 136:19
interconnected [1] - 97:14
interest [74] - 8:8, 26:11, 92:11, 96:1, 96:2, 96:3, 96:5, 96:8, 96:10, 96:13, 96:16, 96:20, 96:23, 97:5, 97:9, 97:12, 97:18, 97:21, 97:23, 97:25, 98:13, 98:14, 98:16, 99:9, 99:21, 99:25, 100:3, 100:7, 100:11, 100:13, 100:17, 100:20, 100:24, 101:6, 101:9, 101:15, 101:25, 102:17, 102:24, 105:16, 105:19, 109:25, 111:6, 111:8, 111:9, 111:18, 111:22, 112:8, 112:20, 112:23, 113:4, 113:17, 113:20, 113:22, 113:24, 114:14, 115:11, 116:6, 117:22, 118:2, 118:11, 120:15, 120:18, 120:24, 146:21, 158:21, 161:25, 162:10, 162:13, 205:12, 211:5, 223:2, 223:5, 223:22
interested [5] - 16:21, 88:17, 113:21, 125:10, 230:25
interesting [2] - 170:1, 227:2
interests [9] - 10:25, 96:9, 99:17, 101:20, 112:16, 118:16, 119:10, 153:23, 223:24
interject [1] - 17:2
internal [1] - 38:12
international [1] - 72:18
interpret [2] - 18:14, 134:7
interpretation [2] - 125:6, 170:21
interpreted [1] - 17:8
interrupt [1] - 58:2
interruptions [1] - 185:13
interval [1] - 211:3
intervals [1] - 32:4
Intervenor [3] - 1:11, 2:6, 5:11
Intervenor-Defendants [2] - 2:6, 5:11
Intervenor-Plaintiffs [1] - 1:11
invalid [5] - 12:24, 147:21, 147:25, 148:8, 165:24
invalidate [2] - 153:18, 178:10
invalidated [1] - 221:9
invalidating [1] - 217:15
invariably [1] - 154:10
investigate [1] - 37:12
investigated [2] - 143:17, 143:23
investigating [2] - 34:17, 35:24
investigation [1] - 135:18
involve [2] - 8:7, 17:23
involved [5] - 9:23, 24:5, 47:25, 110:18, 149:13
involves [1] - 19:2
involving [1] - 18:18
Iowa [2] - 94:8, 219:7
iron [1] - 9:18
irregular [1] - 87:5
irregularly [1] - 225:25
islands [3] - 109:1, 109:2, 121:12
issue [17] - 57:19, 62:18, 65:14, 69:7, 69:8, 74:25, 98:18, 113:3, 121:7, 123:15, 130:18, 146:25, 149:6, 149:7, 149:13, 153:1, 215:13
issues [22] - 9:23, 23:1, 25:10, 25:12, 25:25, 27:14, 62:21, 75:2, 87:19, 87:25, 88:10, 89:22, 118:1, 128:20, 130:20, 166:16, 177:8, 206:22, 216:1, 217:23, 218:1, 219:6
iterative [1] - 110:15
itself [5] - 57:11, 66:12, 66:16, 146:18, 147:22
IV [1] - 124:1

J

JAMES [1] - 2:4
January [7] - 1:20, 3:13, 3:14, 4:13, 129:2, 230:7, 231:3
JEANNE [1] - 1:7
Jefferson [1] - 4:23
job [1] - 14:1
JoCasta [2] - 184:5, 184:22
Joel [1] - 131:17
JOHNSON [1] - 1:5
join [12] - 46:17, 68:3, 74:8, 84:22, 96:25, 98:11, 103:4, 118:7, 119:6, 186:1, 189:11, 190:17
joining [1] - 98:9
JOSE [1] - 2:9
joust [1] - 192:5
JPS [1] - 2:12
JPS-DPW-RMD [1] - 2:12
JR [2] - 2:4, 2:4
Jubelirer [1] - 149:2
judge [10] - 85:2, 159:13, 167:7, 167:13, 167:20, 168:5, 168:10, 168:14, 182:24, 217:16
judge-drawn [1] - 168:14
judge-made [1] - 168:10
judges [2] - 130:25, 155:16
judges' [1] - 167:10
judging [1] - 111:5
judgment [4] - 21:16, 25:20, 167:8, 179:1
judicial [2] - 153:10, 157:7
JUDY [1] - 1:7
June [1] - 231:7
juris [3] - 25:5, 123:4, 148:3
jurisdiction [2] - 32:11, 55:5
jurisdictions [1] - 15:6
JUSTICE [1] - 5:3
justice [2] - 15:8, 84:12
Justice [1] - 6:13
justiciable [2] - 149:5, 149:7
justifiable [2] - 115:1, 120:14
justification [5] - 160:4, 163:4, 163:5, 171:4, 171:22
justified [2] - 112:22, 115:6
justify [3] - 112:7, 112:11, 112:16

K

Kahn [2] - 4:10, 230:8
KAHN [1] - 4:19
KASPER [3] - 5:9, 214:11, 226:12
Kasper [2] - 3:5, 216:12
keep [9] - 6:23, 14:19, 101:25, 103:24, 115:12, 146:5, 153:20, 196:11, 226:19
keeping [1] - 218:9
Keith [1] - 118:18
KELLEN [1] - 5:9
Kelly [7] - 3:4, 5:22, 219:2, 226:22, 227:19, 229:1, 229:2
KELLY [39] - 5:5, 45:11, 56:24, 61:4, 61:7, 71:20, 91:14, 91:16, 98:11, 115:23, 116:2, 120:5, 122:5, 125:7, 127:6, 133:13, 142:5, 150:9, 163:18, 168:1, 176:12, 176:17, 184:10, 184:15, 191:7, 194:12, 197:15, 202:17, 205:5, 206:24, 207:20, 208:8, 209:20, 209:23, 210:2, 210:5, 214:9, 216:6, 229:18
KENNEDY [2] - 2:1, 2:15
KENNETH [5] - 1:19, 3:3, 4:1, 5:17, 230:11
Kenosha [5] - 161:11, 161:13, 161:23, 162:3, 162:6
kept [3] - 97:25, 103:18, 103:25
KEVIN [2] - 2:1, 2:15
key [5] - 53:1, 55:22, 92:11, 192:10, 206:5
keyboard [1] - 227:2
KIND [1] - 1:10
kind [14] - 7:13, 10:1, 11:20, 30:19, 43:23, 48:8, 58:17, 83:22, 88:24, 102:21, 119:21, 125:5, 142:1,

171:13
kinds [6] - 48:7, 52:9, 79:3, 80:22, 105:5, 175:4
King [2] - 30:5, 36:14
Kings [1] - 211:6
knowing [5] - 118:17, 120:9, 125:10, 142:18, 147:5
knowledge [10] - 10:11, 18:8, 83:15, 121:8, 121:23, 122:10, 129:5, 130:13, 147:23, 230:13
known [15] - 16:2, 16:15, 17:10, 28:11, 28:13, 28:20, 28:25, 29:8, 29:15, 29:20, 37:1, 41:1, 41:3, 84:15, 91:5
knows [1] - 163:8
KRESBACH [1] - 1:6

L

LA [1] - 2:8
labeling [1] - 212:16
labor [1] - 88:21
lack [1] - 90:13
laid [2] - 99:2, 225:19
landmark [1] - 18:16
Lane [1] - 5:14
LANGE [1] - 1:6
language [3] - 15:21, 212:7
LARDNER [1] - 5:9
large [29] - 16:3, 17:13, 19:3, 19:4, 21:3, 21:6, 30:7, 35:8, 35:22, 53:14, 55:12, 63:17, 64:2, 83:1, 105:6, 112:9, 119:7, 131:13, 143:13, 188:17, 193:20, 203:3, 203:8, 203:13, 204:3, 216:22, 225:10
largely [1] - 99:1
larger [16] - 9:25, 11:23, 12:6, 31:13, 32:11, 40:1, 40:8, 44:23, 70:1, 83:12, 110:22, 160:12, 160:23, 167:18, 204:25, 205:1
largest [4] - 8:23, 199:15, 203:17, 203:24
last [19] - 6:9, 25:7, 54:11, 68:25, 92:22, 129:17, 130:18, 149:21, 150:16, 181:12, 194:21, 207:16, 208:14, 208:17, 211:11, 213:12, 217:1, 228:10
late [1] - 181:4
Latino [86] - 15:20, 33:25, 34:6, 34:14, 35:12, 40:3, 40:5, 47:3, 48:2, 48:17, 48:18, 49:3, 49:13, 50:3, 50:8, 50:9, 50:17, 50:20, 50:23, 51:3, 51:14, 51:22, 54:10, 54:14, 55:7, 67:7, 67:8, 67:14, 67:18, 67:22, 76:15, 76:18, 135:20, 135:21, 169:24, 178:16, 179:12, 179:16, 180:3, 180:6, 180:11, 180:14, 180:20, 180:23, 181:6, 181:9, 182:5, 182:15, 183:15, 185:1, 185:3, 185:8, 185:20, 186:2, 186:5, 186:7, 187:1, 187:4, 187:9, 187:11, 187:13, 187:22, 188:10, 188:11, 188:13, 188:17, 188:21, 189:6, 189:25, 190:23, 190:25, 191:12, 191:15, 191:23, 192:3, 192:14, 192:15, 206:6, 210:20, 210:21, 210:24, 213:6, 213:10
Latinos [9] - 34:9, 34:18, 35:8, 49:24, 178:25, 179:4, 182:13, 185:7, 191:21
latitude [2] - 9:21, 11:17
Law [6] - 4:11, 4:19, 4:23, 5:6, 5:9, 230:9
law [19] - 8:8, 14:6, 14:8, 59:4, 64:7, 64:16, 64:21, 65:5, 70:3, 71:4, 71:13, 72:1, 75:12, 92:12, 125:4, 125:5, 153:1, 153:3, 158:17
LAW [1] - 4:23
lawful [1] - 4:2
laws [6] - 59:5, 71:5, 71:18, 71:19, 94:7, 122:17
lawyer [2] - 44:12, 60:2
LAZAR [4] - 5:2, 127:13, 127:20, 150:10
Lazar [1] - 3:25
learned [1] - 214:20
least [15] - 11:4, 25:24, 32:23, 32:24, 56:19, 77:12, 89:6, 98:25, 103:19, 104:14, 137:23, 170:17, 212:16, 217:21, 223:18
leave [4] - 131:24, 149:14, 168:8, 214:6
leaving [2] - 132:10, 184:19
led [1] - 11:11
left [4] - 132:20, 181:3, 184:20, 224:2
Legal [1] - 5:13
legal [28] - 9:15, 9:18, 10:12, 12:22, 17:4, 18:9, 19:22, 20:19, 23:5, 24:4, 24:6, 24:9, 24:17, 25:14, 60:2, 61:1, 62:9, 64:25, 68:1, 84:5, 85:4, 85:5, 85:16, 121:14, 125:6, 148:5, 149:10, 158:2
legally [1] - 76:21
legislative [33] - 7:21, 7:23, 8:2, 8:4, 9:20, 9:24, 11:18, 11:21, 12:2, 13:7, 14:5, 14:22, 16:1, 16:22, 18:14, 86:1, 92:23, 93:10, 94:17, 96:14, 122:23, 124:22, 124:24, 128:4, 136:3, 139:7, 153:13, 168:9, 205:11, 215:7, 220:11, 224:5, 227:4
legislator [3] - 223:11, 223:12, 224:21
legislators [2] - 222:5, 222:6
legislature [9] - 20:8, 85:24, 94:19, 102:23, 121:18, 122:22, 124:3, 168:15, 182:21
legislature's [1] - 218:3
legislatures [3] - 85:12, 94:18, 222:16
legitimate [4] - 114:16, 156:1, 162:12, 225:14
length [1] - 82:18
LESLIE [1] - 1:5
less [41] - 17:21, 27:22, 37:15, 40:23, 47:4, 50:14, 54:8, 60:18, 61:22, 61:23, 62:12, 62:18, 63:7, 63:20, 64:4, 66:10, 68:16, 68:17, 71:16, 72:5, 72:8, 72:12, 72:15, 73:7, 73:9, 73:13, 73:20, 74:3, 74:11, 74:19, 75:7, 76:23, 80:4, 90:10, 114:5, 141:4, 141:5, 171:22, 172:2, 198:19, 221:11
lessen [1] - 225:18
lesser [2] - 180:22, 181:8
letter [3] - 3:14, 128:16, 159:23
level [7] - 28:6, 28:7, 31:15, 31:16, 31:17, 199:20, 219:11
levels [3] - 60:19, 175:20, 192:18
license [7] - 70:19, 70:23, 72:10, 72:15, 76:22, 76:24, 77:6
licenses [2] - 73:22, 73:23
likelihood [5] - 30:9, 62:25, 63:12, 67:11, 68:9
likely [29] - 53:18, 59:4, 60:18, 61:22, 61:23, 62:12, 63:7, 63:20, 66:10, 68:14, 68:16, 68:17, 72:5, 72:8, 72:12, 72:16, 73:7, 73:9, 73:14, 73:20, 74:3, 74:11, 74:19, 75:7, 146:25, 183:17, 190:7, 198:9
limit [2] - 153:16, 226:11
limited [2] - 77:9, 209:16
limits [3] - 12:19, 29:16, 31:12
line [9] - 66:19, 85:10, 87:7, 97:13, 99:20, 111:13, 140:5, 144:2, 205:25
lines [5] - 66:9, 99:2, 157:11, 157:13, 160:7
link [1] - 100:22
linked [1] - 100:22
linking [1] - 161:22
links [1] - 96:7
list [10] - 8:1, 58:19, 79:12, 92:8, 96:10, 104:9, 129:21, 151:9, 196:3, 219:15
listed [6] - 80:20, 142:20, 143:15, 143:25, 187:6, 207:25
literal [1] - 109:1
literally [1] - 109:4
literature [3] - 40:25, 43:14, 43:20
litigation [5] - 49:9, 50:1, 164:15, 165:4, 194:19
live [5] - 34:10, 35:8, 35:10, 66:7, 226:8
lives [2] - 34:13, 34:14
living [1] - 34:18
LLC [1] - 4:23
LLP [1] - 5:9
local [4] - 87:12, 92:9, 111:2, 205:13
location [2] - 62:5, 215:5
long-time [1] - 184:1
longest [1] - 78:3
look [98] - 6:12, 11:14, 19:1, 20:3, 20:25, 28:9, 28:18, 30:23, 32:6, 32:14, 33:19, 33:20, 34:22, 36:5, 36:8, 36:17, 36:19, 38:9, 39:7, 41:12, 43:9, 45:16, 47:10, 47:22, 50:13, 64:20, 67:3, 84:14, 86:5, 86:14, 90:15, 93:7, 95:4, 97:19, 98:12, 109:9, 111:20, 111:25, 112:19, 113:15, 116:8, 120:14, 122:12, 125:9, 125:14, 125:24, 127:3, 127:10, 128:15, 128:25, 129:16, 131:3, 132:1, 133:8, 133:12, 133:19, 133:23, 133:24, 134:2, 135:15, 137:21, 143:1, 143:3, 146:11, 149:16, 150:14, 150:24, 159:19, 160:17,

176:14, 181:17, 187:17, 187:23, 194:16, 195:1, 196:15, 196:18, 197:12, 198:12, 199:21, 201:19, 201:24, 201:25, 202:16, 202:20, 202:21, 203:2, 203:9, 204:1, 207:9, 207:24, 209:7, 210:7, 217:25, 220:24, 228:5, 228:23
looked [21] - 28:21, 32:16, 43:10, 43:11, 50:11, 51:6, 56:13, 76:18, 86:10, 88:8, 89:4, 89:5, 89:7, 89:25, 114:12, 130:20, 131:18, 186:22, 202:11, 228:16, 228:18
looking [69] - 20:9, 20:12, 20:16, 21:1, 26:15, 27:7, 27:11, 29:23, 30:6, 32:8, 32:12, 32:20, 33:4, 33:5, 33:7, 33:13, 33:17, 34:1, 37:18, 38:5, 38:19, 41:16, 41:17, 41:20, 47:9, 47:19, 50:8, 51:14, 51:17, 52:21, 53:4, 56:4, 56:8, 59:17, 60:1, 64:18, 67:18, 78:16, 86:9, 87:9, 88:6, 93:11, 94:11, 102:21, 111:19, 118:24, 136:14, 141:21, 143:23, 149:17, 150:19, 152:7, 168:20, 183:11, 185:15, 187:14, 188:22, 189:4, 190:6, 191:16, 191:17, 192:9, 196:1, 201:14, 202:22, 204:1, 212:14, 214:2
looks [13] - 40:14, 45:22, 52:23, 58:8, 76:16, 109:17, 113:18, 132:2, 150:2, 150:4, 160:2, 186:23, 212:7
lose [7] - 55:20, 92:20, 138:25, 158:5, 172:8, 174:18, 190:19
loses [1] - 139:2
losing [1] - 145:12
loss [1] - 139:2
lost [8] - 138:8, 139:13, 139:23, 141:15, 172:24, 191:13, 202:24, 204:20
low [3] - 59:22, 72:15, 147:4
lower [19] - 29:16, 31:9, 31:12, 61:11, 64:4, 67:11, 139:12, 146:11, 146:16, 165:16, 175:5, 175:6, 175:22, 182:7, 187:25, 188:7, 188:8, 193:6, 203:13
lowered [1] - 228:8
lowering [1] - 193:15
lowest [1] - 146:17
lunch [1] - 91:16
LVAP [2] - 212:19, 212:21

M

Madison [10] - 1:20, 4:12, 4:20, 5:3, 121:11, 121:13, 203:10, 204:5, 230:9
magic [1] - 52:3
magnitude [2] - 118:17, 156:8
mailed [2] - 208:14, 208:17
main [8] - 16:25, 17:7, 44:15, 108:11, 159:20, 194:3, 194:5, 194:7
Main [4] - 4:11, 4:20, 5:3, 230:9
maintain [2] - 96:16, 219:14
maintaining [3] - 92:10, 100:10, 223:3
maintains [2] - 97:5, 97:9
major [12] - 8:10, 15:22, 18:18, 68:4, 107:7, 107:9, 130:24, 141:23, 146:19, 147:3, 148:24, 196:10
majorities [1] - 206:8
majority [40] - 19:5, 19:9, 21:4, 21:6, 21:21, 22:7, 22:12, 22:15, 22:21, 23:7, 23:13, 23:18, 23:23, 24:14, 31:20, 49:23, 50:3, 50:17, 51:7, 51:10, 53:13, 53:15, 53:21, 53:22, 53:23, 53:24, 84:9, 179:9, 185:6, 188:10, 188:11, 188:13, 188:15, 188:21, 189:6, 192:25, 193:22, 228:18
majority-minority [17] - 21:21, 22:7, 22:12, 22:15, 22:21, 23:7, 23:13, 23:18, 23:23, 24:14, 53:13, 53:15, 53:22, 53:24, 84:9, 192:25, 193:22
makeup [2] - 45:5, 45:20
males [2] - 49:17, 185:14
man [1] - 116:2
mandate [1] - 130:10
manner [1] - 138:25
MANZANET [1] - 1:6
map [127] - 7:22, 7:24, 8:12, 8:13, 8:21, 11:2, 13:8, 14:5, 14:18, 16:1, 16:22, 18:14, 20:1, 20:8, 20:13, 20:16, 20:17, 20:21, 20:23, 21:1, 21:7, 21:21, 22:6, 22:20, 24:12, 33:14, 50:8, 85:1, 85:15, 86:5, 86:9, 86:16, 91:25, 92:1, 93:20, 94:11, 96:14, 96:22, 97:2, 97:4, 97:6, 97:8, 97:19, 97:22, 98:12, 100:18, 101:23, 105:2, 105:4, 105:17, 106:11, 106:20, 108:2, 109:9, 110:12, 110:17, 111:5, 111:17, 111:19, 111:25, 112:5, 113:18, 113:20, 113:23, 114:12, 116:17, 116:24, 117:13, 117:17, 117:19, 121:10, 121:19, 122:24, 124:25, 125:12, 125:22, 126:18, 126:21, 136:3, 146:4, 146:20, 147:6, 147:17, 147:21, 147:24, 148:8, 153:13, 153:18, 154:10, 154:18, 155:7, 155:13, 156:1, 159:10, 160:18, 161:5, 167:23, 168:9, 168:10, 168:14, 168:19, 169:19, 169:22, 177:10, 178:11, 197:11, 197:21, 198:17, 199:3, 199:21, 200:2, 200:23, 201:16, 202:22, 204:1, 204:2, 218:3, 218:9, 218:25, 222:12, 225:12, 225:14, 225:17
mapping [1] - 169:14
maps [17] - 50:3, 103:20, 107:12, 117:8, 148:14, 164:19, 164:24, 165:3, 165:5, 165:13, 165:18, 165:21, 165:24, 166:3, 166:4, 166:7, 224:6
marginal [1] - 146:24
marginally [1] - 160:24
MARIA [1] - 5:2
Maria [1] - 3:25
mark [4] - 115:19, 142:24, 143:6, 208:9
marked [21] - 127:7, 127:10, 128:22, 128:25, 135:12, 135:15, 143:7, 194:9, 194:13, 194:16, 196:12, 196:15, 205:9, 207:6, 207:9, 207:17, 208:20, 208:22, 209:21, 210:3, 210:7
Marshfield [5] - 98:21, 98:24, 99:7, 103:15, 126:11
match [1] - 143:16
material [5] - 133:24, 152:1, 195:4, 209:4, 229:12
materially [2] - 155:8
materials [4] - 56:17, 56:22, 208:4, 208:24
math [2] - 38:25, 39:1
mathematical [1] - 37:8
mathematics [1] - 12:5
matter [20] - 6:25, 26:8, 26:13, 27:3, 39:11, 44:14, 45:22, 45:23, 46:11, 52:20, 66:3, 76:14, 88:18, 88:21, 128:19, 136:9, 155:15, 162:21, 200:9, 226:6
matters [5] - 46:5, 65:20, 195:6, 226:4, 230:14
MAXINE [1] - 1:5
MAYER [5] - 1:19, 3:3, 4:1, 5:17, 230:11
mayer [1] - 228:25
Mayer [26] - 6:1, 6:2, 6:4, 17:5, 18:2, 57:2, 71:24, 91:22, 122:16, 127:9, 128:24, 133:19, 135:14, 164:14, 176:14, 192:20, 193:24, 194:15, 196:14, 205:8, 207:8, 210:6, 214:14, 216:13, 226:19
mean [20] - 11:9, 12:19, 13:1, 19:19, 23:8, 26:7, 35:11, 37:16, 54:12, 60:4, 64:13, 102:1, 147:24, 148:12, 188:11, 188:13, 191:23, 219:13, 223:9, 224:6
meaning [1] - 106:6
meaningful [3] - 39:4, 91:7, 189:23
means [13] - 8:21, 19:14, 31:1, 88:24, 89:10, 89:12, 89:14, 148:10, 148:13, 149:12, 173:17, 173:19, 204:18
meant [3] - 102:19, 165:17, 175:16
measure [20] - 44:3, 77:17, 77:19, 78:2, 78:19, 78:22, 79:18, 80:6, 81:1, 81:6, 81:9, 81:11, 81:17, 81:20, 86:10, 86:11, 86:21, 151:6, 151:10, 151:13
measurement [2] - 33:12, 85:8
measurements [1] - 79:2
measures [16] - 77:18, 77:23, 78:1, 78:7, 78:24, 79:10, 80:25, 81:8, 82:11, 83:5, 88:6, 88:19, 195:7, 195:9, 195:13, 196:4
measuring [1] - 111:11
meet [13] - 19:16, 19:18, 24:25, 41:18,

41:22, 53:25, 57:15, 57:19, 84:6, 85:4, 98:6, 112:14, 159:5
meeting [1] - 14:1
member [4] - 61:17, 64:1, 94:4, 182:21
Members [3] - 1:13, 2:12, 4:4
members [20] - 16:7, 17:17, 22:23, 23:21, 26:17, 26:18, 26:22, 33:1, 44:15, 45:24, 45:25, 46:11, 58:5, 63:19, 63:21, 68:15, 72:5, 136:24, 148:15, 196:22
mentally [1] - 132:22
mention [3] - 92:13, 195:5, 219:1
mentioned [30] - 9:11, 10:2, 11:16, 14:4, 19:2, 24:16, 26:24, 36:1, 47:7, 47:8, 49:6, 51:13, 57:21, 69:14, 72:4, 77:11, 79:1, 88:10, 92:3, 104:21, 106:9, 108:11, 117:18, 121:6, 137:3, 137:22, 156:13, 218:22, 219:7, 229:3
met [1] - 57:17
method [35] - 29:8, 29:15, 30:1, 30:3, 30:6, 30:13, 30:25, 31:9, 31:14, 32:2, 32:3, 36:7, 36:13, 36:15, 36:25, 37:3, 37:11, 37:14, 37:19, 37:22, 37:23, 38:1, 38:3, 38:5, 38:8, 38:13, 38:15, 40:15, 41:1, 41:9, 43:2, 43:3, 45:2, 131:22
methodological [3] - 28:4, 39:16, 45:1
methods [6] - 28:19, 28:20, 29:20, 30:2, 39:3
metric [1] - 114:21
MICHAEL [2] - 1:15, 2:14
middle [1] - 94:5
might [40] - 12:3, 12:18, 18:13, 23:25, 24:5, 24:17, 24:20, 33:5, 33:6, 33:8, 33:9, 37:21, 69:12, 71:4, 72:1, 83:6, 85:24, 87:6, 95:7, 95:19, 99:4, 101:14, 110:9, 112:3, 114:1, 119:15, 126:23, 136:11, 136:13, 154:14, 154:19, 189:24, 207:18, 207:20, 215:4, 215:18, 225:12, 228:20, 229:13
miles [2] - 87:3, 226:1
military [1] - 72:10
MILLEVILLE [1] - 230:3
Milleville [2] - 1:21, 4:8
million [6] - 111:1, 131:10, 131:16, 133:21, 134:10, 134:23
Milwaukee [38] - 4:24, 5:7, 5:10, 29:10, 33:6, 33:17, 34:4, 34:13, 35:3, 41:17, 44:21, 48:20, 49:7, 49:19, 52:6, 59:7, 135:21, 135:22, 138:2, 138:8, 138:11, 138:15, 138:17, 139:14, 139:23, 140:2, 140:4, 140:5, 140:18, 145:13, 146:12, 179:4, 182:23, 202:25, 204:5, 205:18, 206:16, 227:21
mind [10] - 6:23, 7:17, 14:19, 43:24, 51:1, 103:25, 122:11, 134:1, 218:10, 224:7
minds [1] - 117:7
mine [2] - 90:18, 143:14
minimize [1] - 155:10
minimizing [1] - 220:2
minimum [15] - 79:22, 80:15, 82:8, 82:15, 83:9, 92:18, 109:7, 111:25, 150:4, 199:25, 200:20, 200:25, 201:6, 201:13, 201:17
Minnesota [1] - 87:9
minorities [16] - 15:21, 22:10, 36:22, 42:16, 53:4, 53:5, 64:5, 72:12, 72:24, 73:7, 73:20, 74:3, 74:11, 74:19, 75:7, 76:8
minority [124] - 15:24, 16:4, 16:16, 17:12, 17:21, 17:24, 19:3, 19:10, 21:11, 21:17, 21:21, 21:25, 22:7, 22:12, 22:15, 22:21, 22:23, 23:7, 23:10, 23:13, 23:17, 23:18, 23:22, 23:23, 24:14, 24:18, 25:12, 25:25, 26:5, 26:17, 26:18, 26:23, 27:8, 27:9, 27:12, 28:1, 28:25, 29:3, 29:12, 30:20, 30:24, 31:19, 32:13, 32:23, 32:24, 33:1, 34:5, 35:2, 35:6, 35:19, 35:23, 36:4, 36:22, 37:7, 38:11, 39:23, 39:24, 39:25, 41:19, 42:10, 42:11, 42:17, 43:4, 43:21, 44:6, 44:16, 45:24, 45:25, 46:2, 46:23, 47:20, 48:9, 52:14, 52:22, 52:23, 53:2, 53:11, 53:13, 53:14, 53:15, 53:21, 53:22, 53:24, 54:1, 54:2, 54:6, 54:19, 54:21, 54:25, 55:1, 55:16, 55:20, 55:22, 55:25, 58:6, 58:10, 58:22, 59:6, 59:12, 61:10, 61:11, 61:17, 61:18, 63:19, 63:21, 64:1, 64:4, 65:4, 68:15, 68:23, 69:2, 70:1, 72:1, 72:5, 76:11, 77:2, 84:9, 147:10, 189:22, 189:25, 192:25, 193:20, 193:22
minute [1] - 22:8
minutes [1] - 214:10
misidentified [2] - 150:2, 151:8
miss [1] - 39:3
missed [1] - 130:4
misses [1] - 78:20
misstates [1] - 126:6
mistaken [1] - 168:16
misunderstood [1] - 136:13
mix [1] - 110:6
mobile [1] - 63:11
model [4] - 38:18, 39:22, 40:1, 211:6
models [1] - 28:24
modest [1] - 203:8
modified [1] - 202:7
moment [11] - 21:1, 33:15, 47:19, 83:6, 95:19, 108:20, 122:11, 143:1, 157:20, 159:21, 169:6
Monday [1] - 211:12
months [4] - 25:7, 51:6, 171:9, 174:9
Moore [1] - 44:18
MOORE [2] - 1:6, 1:10
morning [9] - 5:23, 5:24, 7:20, 60:22, 61:10, 91:22, 92:13, 150:20, 208:13
Morrison's [1] - 52:16
most [42] - 6:22, 14:15, 14:18, 16:2, 26:20, 34:4, 34:10, 34:12, 34:14, 34:17, 35:4, 35:10, 35:12, 36:24, 36:25, 42:24, 43:10, 77:5, 79:19, 79:21, 80:11, 80:15, 80:21, 83:8, 87:23, 89:6, 93:9, 97:3, 117:12, 144:23, 161:10, 161:11, 166:15, 175:10, 175:13, 175:14, 183:17, 185:12, 189:6, 221:11
mostly [3] - 72:8, 201:20, 216:16
motion [2] - 159:15, 159:16
motivation [4] - 136:16, 137:4, 137:10, 137:16
motivations [2] - 147:5, 147:8
move [18] - 12:6, 26:3, 52:17, 57:4, 77:10, 110:5, 157:21, 158:4, 158:5, 158:9, 172:24, 197:18, 199:25, 200:9, 200:12, 200:24, 204:18, 204:19
moved [18] - 92:19, 110:10, 131:6, 131:19, 132:3, 132:4, 135:2, 152:19, 157:12, 158:25, 171:16, 172:5, 172:7, 197:8, 200:20, 200:21, 202:3, 223:1
movement [7] - 11:22, 201:21, 202:12, 202:14, 215:11, 227:5, 227:13
movements [2] - 131:23, 201:6
moves [5] - 157:21, 197:22, 198:18, 200:2, 201:17
moving [5] - 11:25, 131:13, 188:3, 201:22, 203:19
MR [155] - 17:2, 24:21, 25:16, 39:13, 45:9, 45:11, 45:13, 46:16, 46:17, 55:3, 56:24, 57:7, 59:20, 60:24, 61:4, 61:6, 61:7, 64:8, 64:12, 64:23, 67:24, 68:3, 71:8, 71:20, 74:6, 74:8, 81:18, 84:20, 84:22, 85:20, 88:12, 91:14, 91:15, 91:16, 91:18, 96:24, 96:25, 98:2, 98:9, 98:11, 103:2, 103:4, 103:5, 104:24, 111:12, 115:16, 115:18, 115:21, 115:23, 115:25, 116:2, 116:25, 118:5, 118:7, 119:4, 119:6, 120:1, 120:5, 120:6, 120:8, 120:20, 120:21, 121:25, 122:3, 122:5, 122:7, 122:13, 124:7, 124:12, 125:3, 125:7, 125:17, 126:5, 127:2, 127:4, 127:6, 133:11, 133:13, 142:5, 148:1, 149:9, 150:6, 150:9, 150:12, 155:23, 156:4, 158:1, 158:15, 159:23, 162:23, 163:15, 163:18, 164:1, 164:10, 164:13, 166:10, 167:15, 167:24, 168:1, 175:1, 175:25, 176:12, 176:16, 176:17, 177:25, 180:25, 182:8, 184:8, 184:10, 184:13, 184:15, 185:24, 186:1, 186:13, 189:9, 189:11, 190:15, 190:17, 191:5, 191:7,

191:8, 191:9, 191:19, 194:11, 194:12, 197:14, 197:15, 201:1, 202:17, 202:19, 205:5, 206:24, 207:3, 207:18, 207:20, 208:8, 208:10, 208:16, 209:14, 209:20, 209:23, 209:25, 210:2, 210:3, 210:5, 214:9, 214:11, 216:6, 225:21, 226:12, 226:13, 226:14, 229:16, 229:18, 229:20
MS [3] - 127:13, 127:20, 150:10
multiple [6] - 42:24, 43:13, 43:17, 43:20, 89:24, 90:3
municipal [7] - 103:10, 109:1, 109:15, 123:18, 124:19, 126:10, 126:23
municipalities [6] - 109:24, 124:24, 125:23, 126:4, 126:19, 126:22
municipality [1] - 116:8
must [16] - 8:19, 14:8, 14:21, 15:7, 15:10, 17:14, 17:16, 19:16, 26:5, 57:15, 62:9, 71:15, 98:5, 116:15, 220:1, 221:2
myriad [2] - 136:5, 137:3

N

name [9] - 6:12, 41:8, 44:4, 80:20, 81:21, 81:23, 150:21, 182:17, 195:22
named [2] - 30:4, 230:11
names [3] - 78:12, 218:11, 218:21
Native [1] - 206:20
natural [1] - 86:25
naturalization [2] - 75:20, 75:21
nature [7] - 115:10, 115:11, 120:23, 120:25, 163:16, 173:6, 189:14
nearly [1] - 221:3
neatly [1] - 115:18
necessarily [32] - 13:1, 18:12, 21:20, 23:3, 23:8, 24:7, 32:8, 32:19, 44:8, 54:5, 59:19, 59:23, 92:7, 100:4, 100:12, 107:4, 112:4, 113:17, 117:1, 139:10, 147:24, 177:18, 178:12, 186:16, 190:6, 190:18, 200:12, 203:22, 204:14, 223:13, 224:19, 224:21
necessary [31] - 16:9, 18:7, 21:19, 22:13, 25:19, 51:2, 53:25, 68:17, 68:19, 72:6, 72:17, 72:23, 73:1, 73:3, 73:4, 73:8, 73:10, 73:18, 81:20, 103:8, 105:22, 109:12, 122:12, 125:25, 126:16, 179:7, 202:4, 203:6, 203:16, 227:6, 227:14
need [52] - 7:1, 9:14, 13:3, 16:24, 20:10, 21:5, 25:21, 31:23, 32:19, 32:22, 40:20, 54:23, 56:1, 57:12, 57:17, 62:7, 65:1, 71:20, 72:14, 75:17, 87:14, 102:18, 110:1, 115:7, 117:15, 117:25, 135:6, 139:18, 142:6, 158:24, 169:25, 184:11, 189:16, 193:7, 193:13, 198:18, 199:4, 199:5, 199:25, 200:3, 200:4, 200:5, 200:10, 201:10, 201:11, 201:24, 204:9, 204:19, 205:5, 214:10, 215:23, 224:14
needed [6] - 139:24, 143:5, 143:24, 197:18, 201:8, 204:17
needlessly [1] - 205:13
needs [9] - 7:23, 14:5, 20:8, 20:9, 70:5, 109:8, 200:9, 204:7, 218:3
negative [1] - 37:7
neighborhood [3] - 167:4, 205:17, 205:21
neighborhoods [1] - 187:1
net [1] - 131:12
never [3] - 10:11, 159:3, 184:14
New [1] - 15:5
new [28] - 7:21, 7:23, 13:7, 14:21, 15:25, 24:12, 25:9, 54:9, 121:19, 122:23, 131:25, 132:20, 136:3, 139:7, 139:8, 142:9, 145:1, 153:13, 172:19, 174:3, 198:17, 199:4, 199:11, 200:10, 202:4, 205:11, 209:18, 229:13
newly [3] - 136:12, 142:14, 145:4
next [16] - 101:5, 106:14, 106:25, 107:1, 108:23, 117:14, 119:1, 129:20, 132:7, 134:16, 144:3, 144:7, 171:7, 174:10, 182:1, 219:22
nice [2] - 7:10, 101:5
NICHOL [2] - 1:15, 2:14
night [2] - 208:15, 208:18
nine [6] - 127:21, 141:8, 152:11, 191:7, 196:3, 196:6, 207:25, 208:25
ninth [1] - 152:8
nobody [1] - 42:4
non [34] - 27:9, 32:23, 39:20, 39:25, 40:4, 42:11, 43:4, 43:21, 44:6, 52:23, 53:5, 54:1, 54:19, 54:25, 60:11, 61:11, 61:18, 63:21, 64:5, 67:2, 67:19, 76:20, 85:3, 87:2, 89:22, 93:14, 119:13, 135:21, 149:5, 149:7, 189:22, 191:21, 192:14, 195:10
non-citizens [1] - 76:20
non-compact [4] - 85:3, 87:2, 119:13, 195:10
non-constitutional [1] - 93:14
non-election [1] - 39:20
non-justiciable [2] - 149:5, 149:7
non-Latino [2] - 135:21, 192:14
non-Latinos [1] - 191:21
non-minorities [2] - 53:5, 64:5
non-minority [15] - 27:9, 32:23, 39:25, 42:11, 43:4, 43:21, 44:6, 52:23, 54:1, 54:19, 54:25, 61:11, 61:18, 63:21, 189:22
non-partisan [1] - 89:22
non-state [3] - 60:11, 67:2, 67:19
non-voters [1] - 40:4
noon [1] - 91:14
normal [2] - 40:11, 40:13
normally [4] - 16:12, 93:19, 157:16, 175:20
north [1] - 105:3
North [2] - 4:23, 5:6
northern [1] - 205:24
Nos [1] - 127:7
notarial [1] - 231:2
Notary [3] - 4:9, 230:4, 231:5
note [8] - 67:10, 115:13, 127:14, 127:18, 136:23, 141:7, 188:2, 202:1
noted [6] - 35:10, 92:25, 109:5, 161:18, 170:2, 199:8
notes [1] - 3:11
nothing [7] - 12:20, 74:1, 90:21, 150:3, 216:7, 226:13, 230:13
notice [4] - 4:7, 136:20, 207:13, 230:6
Notice [1] - 3:18
noticed [1] - 143:13
notion [2] - 157:9, 177:16
notional [1] - 49:11
November [2] - 173:16, 174:2
nuanced [1] - 100:25
nub [1] - 119:21
Number [1] - 213:14
number [134] - 7:25, 9:25, 11:22, 12:6, 21:21, 22:10, 27:14, 28:14, 30:7, 30:18, 32:5, 32:10, 32:15, 32:17, 32:19, 33:21, 33:22, 35:22, 37:7, 38:9, 38:10, 41:4, 44:1, 44:20, 55:6, 66:13, 72:18, 77:17, 78:11, 79:17, 84:13, 84:23, 86:17, 92:18, 96:5, 98:5, 99:23, 104:11, 104:12, 105:6, 110:4, 110:21, 111:7, 111:25, 121:1, 130:5, 131:18, 132:3, 134:3, 134:6, 134:9, 134:13, 134:15, 135:6, 136:11, 140:3, 142:18, 143:13, 144:6, 144:19, 145:5, 146:25, 150:16, 151:9, 151:13, 153:10, 153:20, 154:8, 155:10, 156:10, 157:15, 158:13, 160:5, 160:10, 160:16, 160:19, 161:1, 161:2, 161:3, 161:4, 161:6, 165:2, 165:5, 165:7, 165:25, 166:6, 166:9, 166:17, 166:20, 167:2, 167:6, 167:9, 168:17, 168:22, 168:23, 169:4, 170:6, 170:8, 177:9, 177:14, 177:17, 177:21, 177:22, 177:24, 178:4, 178:8, 182:10, 182:22, 192:1, 193:6, 193:11, 197:8, 199:3, 199:17, 199:25, 200:19, 200:20, 200:25, 201:6, 201:9, 201:13, 201:18, 205:16, 212:4, 213:17, 214:19, 215:5, 220:2, 221:8, 225:10, 225:13, 228:7
numbered [10] - 152:18, 152:19, 157:14, 157:15, 157:22, 171:16, 173:9, 173:10, 173:15
numbers [37] - 38:19, 49:22, 132:23, 134:14, 141:17, 143:12, 143:14, 143:16, 143:18, 143:24, 143:25, 144:1, 144:4, 144:11, 144:15, 144:22, 145:10, 145:14,

145:15, 146:13, 146:23, 150:15, 160:12, 160:15, 165:17, 173:8, 180:8, 180:19, 187:16, 187:17, 188:22, 193:12, 199:7, 201:5, 211:2, 217:8

O

O'Connor [1] - 84:12
oath [2] - 5:19, 230:16
object [51] - 17:3, 24:21, 25:16, 39:14, 45:9, 57:7, 64:12, 64:23, 67:24, 71:8, 74:6, 81:18, 84:20, 85:20, 88:12, 98:2, 98:7, 103:2, 104:24, 118:5, 119:4, 120:1, 120:6, 120:8, 120:20, 125:3, 125:18, 126:5, 148:1, 149:9, 155:23, 156:4, 158:15, 162:23, 163:15, 164:1, 164:10, 166:11, 167:15, 167:24, 175:1, 175:25, 177:25, 182:8, 185:24, 186:13, 189:9, 190:15, 191:5, 201:1, 225:21
objection [10] - 17:3, 46:16, 55:3, 60:25, 88:12, 96:25, 164:13, 189:11, 190:17, 191:9
objective [4] - 27:23, 39:11, 118:24, 119:11
observe [7] - 6:21, 27:22, 28:5, 28:7, 31:3, 38:12, 126:22
observed [3] - 30:11, 33:22, 38:8
observer [1] - 148:4
obtain [8] - 68:19, 70:17, 71:12, 71:17, 73:3, 75:13, 76:22, 181:23
obtaining [3] - 73:15, 77:5, 219:25
obviously [2] - 101:22, 119:13
occur [6] - 15:25, 42:9, 59:18, 117:19, 176:5, 220:1
occurred [6] - 15:2, 25:23, 145:5, 148:22, 190:13, 213:20
occurring [1] - 174:20
occurs [8] - 16:3, 42:1, 47:14, 175:7, 175:9, 192:3, 200:12
odd [10] - 92:19, 152:19, 157:13, 157:22, 159:1, 171:16, 172:5, 172:8, 173:10, 173:14
oddly [1] - 109:11
OF [6] - 1:1, 4:23, 5:3, 230:1, 230:2
offer [2] - 74:18, 74:25
offered [3] - 75:25, 163:5, 195:20
offering [3] - 24:11, 52:13, 52:15
offhand [2] - 168:21, 195:22
OFFICE [1] - 4:23
office [5] - 15:9, 47:24, 173:16, 173:19, 183:4
offices [1] - 4:10
official [2] - 1:14, 2:13
officials [2] - 223:4, 223:5
often [5] - 29:21, 30:16, 62:18, 78:12, 80:11
old [10] - 114:15, 136:10, 146:5, 146:6, 180:9, 187:7, 195:7, 195:14, 213:22
older [2] - 63:6, 63:13
OLGA [1] - 2:9
omitted [1] - 91:6
once [8] - 39:7, 57:17, 131:24, 132:19, 132:20, 140:1, 170:18, 173:21
One [3] - 4:11, 4:20, 230:9
one [177] - 7:21, 10:5, 11:4, 11:16, 11:25, 12:13, 13:21, 14:4, 14:8, 14:18, 14:21, 14:23, 16:5, 17:3, 20:7, 21:23, 22:21, 23:9, 28:12, 28:21, 32:2, 32:23, 32:24, 36:9, 36:18, 36:23, 39:24, 41:19, 42:10, 42:11, 42:16, 43:5, 44:7, 44:15, 44:18, 47:15, 48:5, 50:7, 55:14, 56:3, 57:20, 59:3, 59:10, 63:6, 63:25, 65:7, 67:5, 68:25, 69:18, 69:23, 71:13, 72:8, 72:12, 78:2, 78:6, 80:3, 82:13, 82:16, 83:18, 83:23, 83:25, 89:4, 89:7, 91:25, 92:22, 95:18, 99:3, 99:24, 99:25, 100:3, 100:11, 104:3, 104:11, 104:12, 104:23, 105:10, 107:18, 108:22, 109:14, 110:16, 111:10, 112:1, 112:14, 112:24, 113:7, 113:12, 113:14, 116:22, 117:6, 117:10, 117:19, 118:3, 118:25, 119:18, 119:23, 120:13, 123:5, 123:10, 123:19, 126:13, 127:17, 127:20, 130:20, 131:6, 131:11, 132:8, 132:9, 132:24, 133:2, 133:22, 137:5, 137:22, 140:8, 140:14, 140:24, 144:8, 144:16, 144:21, 145:7, 146:16, 148:25, 149:1, 150:10, 152:18, 154:1, 154:23, 155:25, 157:3, 160:24, 161:7, 161:10, 168:11, 168:12, 170:1, 171:20, 173:18, 174:22, 175:8, 181:3, 187:21, 188:24, 188:25, 189:6, 190:18, 191:11, 193:4, 195:19, 197:9, 202:20, 204:18, 205:17, 211:1, 212:17, 212:18, 212:21, 213:2, 213:6, 213:9, 214:23, 217:8, 221:17, 221:20, 224:18, 224:19, 225:10, 225:16, 226:9, 228:4
one-one [1] - 160:24
ones [8] - 8:10, 18:18, 79:21, 80:15, 101:24, 142:22, 144:2, 218:22
ongoing [2] - 209:17, 229:8
open [3] - 41:6, 145:3, 212:1
opine [2] - 25:11, 214:8
opined [2] - 74:10, 107:24
opinion [23] - 24:11, 71:3, 74:18, 74:25, 102:5, 125:21, 126:15, 128:13, 128:18, 158:2, 158:12, 159:7, 159:12, 188:20, 200:18, 205:20, 206:12, 206:16, 206:22, 215:10, 227:10, 227:17, 228:21
opinions [12] - 18:2, 18:6, 25:11, 52:13, 52:15, 125:11, 125:13, 126:7, 214:16, 214:20, 216:4, 229:13
opportunities [1] - 16:14
opportunity [42] - 15:17, 16:10, 16:19, 17:25, 53:2, 58:12, 59:13, 65:21, 68:11, 68:20, 69:9, 69:15, 69:22, 112:13, 157:19, 170:8, 170:16, 170:17, 171:6, 171:7, 171:8, 171:17, 171:19, 172:15, 172:17, 173:1, 174:8, 178:17, 178:21, 179:1, 179:5, 185:16, 185:21, 186:10, 188:18, 190:12, 191:1, 191:18, 191:24, 192:8, 193:14, 211:13
opposed [12] - 8:12, 9:2, 64:21, 84:1, 86:5, 111:1, 113:8, 118:13, 138:15, 141:10, 179:12, 213:24
oranges [2] - 170:19, 191:8
order [23] - 18:6, 19:16, 48:22, 53:23, 57:15, 61:13, 62:7, 62:9, 71:16, 73:1, 73:4, 98:5, 103:8, 105:23, 110:25, 115:20, 116:17, 156:9, 179:7, 182:2, 198:24, 199:2, 212:10
ordering [1] - 207:14
ordinal [1] - 105:10
original [16] - 3:22, 3:24, 43:9, 128:15, 129:7, 129:9, 132:1, 135:18, 135:19, 135:24, 144:17, 145:8, 171:15, 176:23, 228:4
originally [1] - 133:5
otherwise [3] - 32:25, 151:3, 176:6
ought [6] - 102:17, 104:1, 171:3, 177:13, 177:22, 206:3
outcomes [1] - 31:3
outer [1] - 204:16
outlines [1] - 18:15
output [1] - 212:12
outputs [1] - 212:11
outside [1] - 186:25
outskirts [1] - 138:11
overall [12] - 76:16, 76:23, 86:16, 89:12, 134:13, 134:15, 134:21, 135:6, 140:13, 140:25, 141:4, 203:14
overlaying [1] - 38:6
overpopulated [1] - 199:24
overstates [1] - 136:8
overturned [5] - 11:7, 84:10, 84:16, 129:25, 220:12
overweigh [1] - 158:22
overwhelm [1] - 53:19
overwhelming [1] - 12:15
overwhelmingly [2] - 47:3, 47:4
own [3] - 69:24, 86:1, 94:15
Ozaukee [1] - 138:19

P

package [2] - 41:5, 212:1
packing [9] - 16:2, 16:3, 23:2, 23:15, 23:24, 24:18, 24:25,

148:16, 148:17
Page [31] - 127:23, 129:13, 129:16, 130:3, 130:5, 131:2, 133:19, 141:7, 149:16, 149:19, 149:22, 149:24, 150:14, 152:8, 160:1, 160:20, 176:15, 176:16, 176:18, 188:9, 195:1, 196:3, 197:12, 205:10, 206:9, 216:19, 217:1, 217:6, 219:22, 220:24, 226:20
page [15] - 129:20, 134:16, 150:11, 187:16, 195:5, 197:14, 207:16, 210:17, 212:14, 213:12, 219:22, 220:24, 221:22, 221:24, 221:25
Pages [1] - 3:2
pages [5] - 135:24, 135:25, 150:8
paid [1] - 131:1
paired [1] - 145:3
pairing [1] - 225:8
pairings [2] - 224:25, 225:10
panel [4] - 167:7, 167:14, 167:21, 168:5
panel's [1] - 159:13
paper [2] - 115:13, 163:19
paragraph [13] - 131:3, 134:16, 150:17, 160:3, 160:7, 160:8, 160:20, 176:18, 206:19, 219:24, 221:22, 222:1, 228:11
paragraphs [3] - 149:21, 207:25, 208:25
parameters [1] - 40:18
part [47] - 9:22, 17:9, 18:20, 21:23, 22:19, 24:7, 41:5, 47:8, 48:14, 51:13, 54:14, 57:21, 58:1, 64:19, 65:11, 68:4, 79:25, 83:8, 99:12, 99:15, 99:25, 100:4, 100:12, 100:14, 104:16, 108:24, 130:24, 133:3, 136:10, 136:13, 136:14, 144:23, 146:9, 146:19, 166:14, 189:3, 190:9, 195:1, 195:14, 195:21, 196:8, 196:9, 196:10, 197:17, 206:5, 214:5, 229:7
partially [1] - 88:18
participate [4] - 18:1, 58:7, 59:2, 60:18
participates [1] - 62:21
participation [2] - 58:21, 59:1
particular [48] - 16:18, 16:22, 27:19, 33:23, 34:15, 35:6, 35:7, 35:9, 35:14, 37:3, 41:12, 53:9, 60:3, 83:17, 84:6, 85:7, 86:2, 87:15, 95:15, 96:3, 97:15, 109:6, 113:16, 113:19, 114:7, 115:20, 117:13, 117:20, 118:18, 120:22, 126:12, 133:21, 135:8, 138:2, 148:16, 153:19, 154:10, 163:6, 165:18, 181:21, 192:10, 193:11, 203:16, 213:18, 221:1, 223:6, 225:1, 225:12
particularly [9] - 8:9, 29:9, 34:3, 59:6, 72:20, 86:14, 113:11, 121:10, 162:3
parties [2] - 230:21, 230:24
parties' [1] - 218:21
partisan [12] - 45:5, 45:19, 89:22, 90:14, 136:16, 137:4, 137:10, 137:15, 137:19, 138:14, 139:20, 140:20
parts [9] - 12:12, 13:17, 15:5, 83:3, 136:9, 137:23, 162:5, 186:23, 186:24
party [9] - 46:13, 46:24, 70:13, 89:8, 119:17, 148:13, 148:15, 174:22, 174:23
pass [1] - 170:1
passed [2] - 14:25, 173:18
passport [4] - 72:10, 72:16, 75:19, 75:20
passports [1] - 72:16
past [5] - 51:15, 170:6, 186:8, 190:14, 190:24
patience [1] - 214:14
pattern [7] - 17:16, 55:13, 72:21, 136:20, 137:20, 203:12, 204:6
patterns [5] - 51:19, 55:9, 55:11, 58:23, 65:6
PAUL [1] - 2:4
pay [4] - 62:4, 76:3, 99:18, 155:16
Pedro [2] - 182:18, 183:14
peg [1] - 193:10
pending [1] - 4:5
Peninsula [1] - 87:10
people [98] - 8:24, 11:23, 11:25, 12:7, 22:7, 27:17, 28:6, 29:7, 33:3, 44:1, 47:11, 47:19, 47:22, 47:24, 47:25, 48:7, 48:14, 60:16, 60:18, 62:4, 62:12, 62:17, 63:6, 63:24, 66:7, 66:14, 76:2, 101:1, 101:13, 101:18, 101:22, 101:23, 110:4, 110:8, 110:10, 110:11, 117:2, 117:7, 118:13, 119:12, 119:15, 120:19, 121:1, 131:5, 131:18, 132:3, 132:9, 132:19, 135:2, 135:9, 147:16, 153:16, 154:8, 157:5, 158:13, 158:25, 159:11, 160:6, 161:19, 162:2, 162:5, 162:20, 166:9, 166:17, 167:6, 168:24, 169:1, 170:8, 170:15, 171:5, 171:14, 172:3, 172:7, 173:9, 173:11, 173:14, 173:19, 174:7, 176:6, 197:8, 198:18, 199:3, 200:19, 200:20, 200:25, 201:10, 201:18, 201:22, 201:23, 202:3, 203:15, 204:18, 204:19, 207:3, 226:7, 227:6, 227:13
percent [47] - 9:17, 10:2, 10:10, 10:14, 10:20, 11:3, 11:9, 11:13, 23:10, 23:11, 29:3, 29:11, 30:19, 30:24, 37:5, 43:8, 51:11, 140:14, 140:15, 141:2, 141:4, 142:9, 144:17, 144:19, 145:11, 146:14, 146:17, 147:18, 147:19, 161:2, 175:22, 176:24, 187:10, 187:11, 187:12, 193:1, 193:12, 211:3, 221:11, 228:9, 228:13
percentage [37] - 11:23, 12:1, 12:5, 16:18, 31:19, 35:8, 36:21, 40:21, 42:15, 44:23, 50:19, 51:2, 72:22, 72:23, 123:16, 141:8, 141:20, 160:21, 160:25, 167:11, 167:13, 167:17, 167:18, 167:19, 167:21, 179:3, 179:11, 179:16, 185:5, 187:22, 187:25, 188:14, 189:21, 210:20, 210:23, 210:24, 228:9
percentages [2] - 37:2, 168:22
PEREZ [1] - 2:9
perfect [4] - 77:21, 79:24
perfectly [2] - 77:20, 169:5
perform [2] - 195:13, 211:10
performed [4] - 89:21, 89:24, 94:18, 210:10
performing [2] - 39:8, 210:13
perhaps [5] - 14:16, 18:23, 64:2, 96:23, 133:14
perimeter [12] - 78:11, 79:10, 80:6, 80:7, 80:8, 80:17, 81:22, 82:18, 82:25, 83:1, 151:11, 151:15
period [2] - 113:13, 170:15
permissible [1] - 225:3
permissibly [1] - 84:1
permit [1] - 188:18
permutations [1] - 105:7
person [14] - 14:5, 28:10, 44:5, 46:12, 84:24, 84:25, 116:23, 116:24, 117:9, 119:23, 152:18, 221:17, 230:11
personally [3] - 90:21, 155:12, 155:15
persons [1] - 85:1
perspective [1] - 112:20
persuaded [1] - 162:4
persuasive [1] - 101:17
pertain [1] - 134:14
Peter [4] - 98:7, 116:3, 202:17, 229:19
PETER [2] - 4:22, 4:23
petitions [1] - 173:22
PETRI [1] - 2:4
Ph.D [5] - 1:19, 3:3, 4:1, 5:17, 230:11
philosophical [1] - 223:7
photo [6] - 70:6, 70:10, 72:6, 75:13, 75:22, 76:9
phrase [3] - 117:1, 219:24, 225:6
phrased [1] - 136:4
physical [1] - 209:1
physically [2] - 157:12, 157:21
pick [7] - 68:25, 112:24, 132:6, 200:4, 204:7, 204:9, 226:1
picks [1] - 38:16
picture [4] - 56:12, 121:24, 147:16, 195:9
piece [12] - 47:15, 48:5, 55:14, 58:9, 59:10, 188:23, 188:24, 189:15, 189:16, 190:18, 191:10, 192:11
pieces [6] - 13:5, 113:24, 188:3, 189:3, 189:4, 189:7
place [9] - 71:15, 88:21, 105:15, 106:20, 110:3, 142:9, 157:8, 171:2, 201:20
placed [2] - 161:14,

161:16
places [6] - 62:3, 105:20, 107:15, 121:10, 138:25, 143:5
Plaintiffs [6] - 1:9, 1:11, 2:10, 4:4, 4:21, 4:24
plaintiffs [1] - 194:8
plan [20] - 11:12, 12:21, 12:24, 13:1, 86:1, 86:2, 128:3, 128:4, 129:24, 131:10, 142:15, 168:25, 169:9, 195:8, 195:14, 201:24, 201:25, 217:15, 227:4
planning [1] - 215:14
plans [5] - 10:9, 166:19, 166:21, 166:24, 221:9
play [12] - 19:25, 20:15, 60:11, 60:20, 62:21, 118:16, 153:24, 172:6, 175:19, 177:8, 214:20, 222:24
played [2] - 136:17, 137:11
plays [1] - 33:3
plurality [1] - 149:3
plus [2] - 161:15, 188:15
Point [1] - 99:16
point [35] - 6:11, 30:3, 38:24, 50:11, 56:7, 62:12, 75:10, 85:7, 86:2, 87:3, 92:22, 116:17, 117:13, 117:20, 120:16, 129:13, 130:5, 139:6, 141:8, 149:17, 150:6, 160:25, 163:13, 163:23, 164:6, 165:13, 184:22, 185:4, 192:12, 205:2, 206:15, 206:18, 211:4, 221:20, 226:21
pointed [1] - 175:4
points [5] - 110:21, 127:24, 141:20, 149:21, 218:16
POLAND [60] - 4:19, 17:2, 25:16, 39:13, 46:17, 57:7, 64:8, 64:12, 67:24, 74:8, 84:20, 85:20, 88:12, 91:15, 91:18, 96:25, 103:2, 103:5, 104:24, 115:16, 118:5, 119:4, 120:8, 120:20, 124:7, 124:12, 125:17, 126:5, 148:1, 149:9, 150:6, 150:12, 155:23, 156:4, 158:15, 159:23, 162:23, 164:1, 164:10, 166:10, 167:15, 167:24, 175:25, 176:16, 177:25, 182:8, 185:24, 189:11, 190:17, 191:9, 197:14, 201:1, 207:18, 208:10, 208:16, 209:14, 209:25, 225:21, 226:14, 229:16
Poland [2] - 3:6, 226:18
polarization [1] - 43:22
polarized [21] - 17:17, 26:16, 27:1, 28:2, 32:22, 36:6, 44:9, 45:3, 45:17, 46:4, 46:14, 47:13, 55:9, 55:18, 56:9, 56:13, 56:18, 192:2, 192:16, 210:14, 210:19
policy [2] - 76:1, 76:5
poling [1] - 71:15
political [28] - 8:5, 27:15, 27:18, 29:22, 30:1, 30:4, 47:11, 59:2, 60:7, 87:12, 92:10, 94:12, 96:6, 99:9, 104:14, 109:21, 114:8, 114:11, 115:10, 116:13, 124:16, 148:9, 148:14, 148:21, 149:5, 149:14, 217:7, 226:6
politically [6] - 17:15, 26:6, 26:7, 47:17, 48:25, 49:4
politics [2] - 62:17, 117:5
polygon [1] - 77:22
poor [6] - 60:16, 102:4, 102:6, 102:12, 102:15, 218:8
Popper [3] - 78:13, 82:1, 82:4
populated [1] - 111:4
population [223] - 8:2, 8:17, 8:20, 8:22, 9:8, 9:13, 9:17, 9:19, 11:3, 11:6, 11:13, 11:17, 12:10, 12:14, 12:18, 12:23, 12:25, 13:8, 13:15, 13:19, 13:22, 14:2, 16:8, 19:3, 19:10, 21:3, 21:5, 21:11, 21:25, 22:3, 23:10, 23:12, 31:20, 31:22, 34:13, 34:14, 35:15, 35:23, 42:7, 49:13, 49:22, 49:24, 50:9, 50:10, 50:12, 50:13, 50:20, 50:24, 51:3, 51:4, 51:8, 51:15, 51:18, 51:22, 53:14, 54:19, 61:18, 69:1, 76:16, 77:2, 77:5, 77:9, 87:11, 91:23, 92:8, 92:14, 96:4, 103:9, 104:10, 104:17, 105:23, 106:23, 106:24, 108:18, 109:13, 110:6, 112:15, 114:7, 114:8, 114:11, 115:9, 124:17, 131:9, 131:12, 131:14, 132:4, 134:18, 135:3, 135:5, 136:2, 136:6, 136:7, 136:21, 137:4, 137:8, 137:17, 137:18, 137:22, 137:23, 137:24, 138:5, 138:9, 138:13, 138:15, 138:23, 139:1, 139:2, 139:5, 139:13, 139:16, 139:18, 139:24, 140:7, 140:12, 140:16, 140:23, 141:19, 142:9, 143:21, 144:15, 145:22, 146:8, 146:9, 147:9, 154:12, 156:11, 158:24, 159:2, 159:6, 160:21, 167:11, 167:17, 167:21, 177:12, 178:25, 179:7, 179:11, 179:13, 179:15, 179:24, 180:3, 180:6, 180:9, 180:10, 180:12, 180:14, 180:20, 180:22, 181:6, 181:9, 181:24, 182:6, 182:15, 185:4, 185:5, 185:7, 186:2, 186:5, 186:20, 187:1, 187:3, 187:10, 187:11, 187:13, 187:23, 191:3, 192:24, 193:21, 196:20, 197:23, 198:8, 198:12, 198:14, 199:4, 199:6, 200:4, 200:6, 200:9, 200:11, 200:13, 201:9, 201:11, 201:18, 202:21, 202:25, 203:3, 203:5, 203:7, 203:18, 203:24, 204:4, 204:8, 204:10, 204:11, 204:12, 204:20, 204:24, 205:1, 213:3, 213:4, 213:7, 213:10, 215:11, 221:3, 221:10, 221:13, 221:17, 222:17, 222:24, 227:6, 227:14, 228:1, 228:7, 228:9, 228:12, 228:17
Population [1] - 144:5
populations [18] - 16:16, 29:13, 36:4, 50:4, 58:11, 59:12, 61:10, 61:12, 76:11, 76:12, 76:15, 92:15, 169:20, 198:14, 206:20, 212:24, 212:25, 213:1
port [1] - 99:22
portion [2] - 99:11, 165:9
portions [3] - 142:13, 205:24, 210:11
pose [1] - 166:19
posed [1] - 28:15
position [2] - 13:20, 105:21
possess [1] - 68:16
possession [1] - 73:18
possibility [4] - 44:8, 134:5, 177:19, 225:15
possible [51] - 8:20, 13:9, 16:12, 21:23, 29:17, 31:2, 35:1, 39:2, 44:11, 45:21, 49:20, 54:5, 79:14, 81:20, 86:15, 87:24, 94:6, 94:10, 94:13, 95:7, 99:24, 100:2, 100:6, 100:10, 110:8, 114:20, 133:9, 146:20, 153:22, 154:1, 154:17, 159:5, 162:8, 162:11, 162:12, 162:15, 163:4, 163:12, 169:19, 177:10, 182:10, 192:14, 192:18, 197:11, 197:21, 198:17, 201:19, 202:10, 228:20, 228:21, 229:11
possibly [4] - 103:19, 119:3, 119:7, 129:25
postulate [2] - 180:13, 182:5
potential [1] - 45:4
power [4] - 15:20, 15:23, 148:13, 212:3
practicable [4] - 8:21, 153:21, 154:2, 154:5
practical [4] - 9:23, 11:18, 11:20, 226:6
practicality [1] - 200:10
practice [4] - 32:5, 111:1, 218:8, 221:12
practices [4] - 15:7, 15:15, 15:19, 65:19
pre [2] - 15:8, 41:18
pre-cleared [1] - 15:8
pre-conditions [1] - 41:18
precinct [6] - 29:1, 30:14, 30:17, 38:19, 38:20, 42:4
precincts [5] - 30:7, 30:18, 31:5, 31:6, 31:10
precise [2] - 37:15, 73:12
precisely [4] - 38:23, 75:16, 102:18, 141:22
precision [3] - 30:22, 37:13, 211:4
predictor [1] - 190:10
preface [1] - 90:16
prefatorial [1] - 195:4
prefer [4] - 6:3, 150:23, 169:4, 204:21
preferable [1] - 97:6
premise [2] - 164:3, 174:12
preparation [1] - 181:25
prepare [2] - 142:20,

211:7
prepared [8] - 19:23, 85:17, 142:20, 143:15, 188:7, 194:18, 195:20, 211:8
prescription [1] - 220:6
present [2] - 5:13, 71:15
presenting [1] - 190:12
presents [1] - 185:20
preservation [5] - 111:5, 112:25, 114:1, 117:23, 117:25
preserve [4] - 105:18, 111:14, 114:14, 205:12
preserved [1] - 102:17
preserving [3] - 92:14, 110:5, 113:21
presidential [3] - 15:3, 175:8, 176:7
presumably [2] - 70:22, 183:23
presumption [1] - 12:24
pretty [1] - 43:14
prevents [1] - 53:11
previous [5] - 6:18, 15:3, 49:13, 142:15, 160:13
previously [1] - 157:14
primarily [5] - 14:9, 14:21, 15:4, 62:10, 111:7
primary [2] - 8:16, 42:23
principle [13] - 9:19, 10:12, 11:8, 11:9, 111:24, 112:17, 123:22, 149:4, 156:2, 156:8, 222:14, 222:23, 225:1
principles [48] - 8:1, 9:7, 12:9, 12:16, 13:21, 14:3, 24:4, 86:22, 92:11, 92:12, 93:18, 95:12, 102:9, 103:12, 103:14, 117:12, 118:16, 123:6, 123:11, 123:19, 126:14, 126:25, 129:20, 129:21, 129:23, 130:2, 130:6, 153:23, 154:16, 154:20, 154:25, 155:9, 155:14, 155:20, 198:7, 198:9, 198:23, 202:9, 202:15, 217:6, 217:16, 217:20, 218:12, 218:23, 225:3, 225:19, 225:24, 227:8
printout [1] - 210:1
private [1] - 65:7
privilege [2] - 112:22, 116:22
privileged [1] - 146:20
privileging [1] - 117:10
probability [5] - 30:8, 37:24, 40:9, 41:10, 190:20
probable [2] - 94:14, 188:2
problem [6] - 28:11, 28:12, 43:12, 91:5, 98:1, 133:7
problems [3] - 28:15, 32:2, 207:19
procedural [1] - 219:6
procedure [1] - 159:14
procedures [1] - 65:19
proceed [1] - 19:16
process [24] - 39:12, 59:2, 62:22, 62:23, 94:15, 94:17, 107:2, 107:3, 107:12, 107:13, 107:17, 107:21, 110:12, 110:15, 117:19, 123:13, 140:17, 144:24, 159:4, 163:9, 176:19, 219:25, 229:7, 229:8
processes [1] - 9:5
produce [11] - 29:21, 30:10, 31:3, 31:8, 37:1, 37:5, 37:15, 39:5, 42:21, 107:7, 207:14
produced [8] - 56:17, 56:22, 132:25, 133:3, 151:25, 152:1, 208:13, 215:1
produces [1] - 37:11
Professor [13] - 6:1, 89:13, 90:17, 117:17, 117:20, 122:16, 127:9, 133:18, 135:14, 143:12, 144:19, 144:22, 216:13
professor [18] - 6:3, 6:4, 18:2, 57:2, 71:24, 91:22, 128:24, 164:14, 170:2, 176:14, 192:20, 193:24, 194:15, 196:14, 205:8, 207:8, 210:6, 214:14
programming [1] - 211:25
prohibit [2] - 94:11, 125:1
prohibiting [1] - 15:18
prohibition [3] - 225:7, 225:8, 226:9
prohibits [3] - 15:14, 15:15, 124:23
project [2] - 185:19, 190:5
projecting [1] - 51:25
projections [4] - 52:4, 52:5, 52:9, 52:14
prong [16] - 19:1, 21:2, 22:16, 22:24, 23:24, 26:3, 47:9, 52:17, 52:21, 52:23, 53:1, 53:7, 53:8, 53:25, 54:18, 54:23
prongs [11] - 17:10, 18:22, 19:12, 19:18, 26:14, 26:24, 27:6, 52:18, 57:3, 57:5, 57:10
pronouncing [1] - 149:3
propensity [2] - 68:8, 69:14
proper [5] - 90:3, 106:22, 224:5, 224:7, 224:17
properly [1] - 37:25
properties [1] - 37:8
proportional [1] - 161:1
proposed [1] - 165:24
prospectively [1] - 20:9
protect [2] - 193:18, 222:20
protected [4] - 15:16, 58:11, 59:12, 156:14
protecting [1] - 97:23
protection [2] - 24:5, 217:23
proven [1] - 19:19
provide [14] - 16:9, 16:19, 18:6, 18:23, 27:4, 36:9, 48:8, 128:13, 128:18, 147:10, 148:14, 165:20, 178:16, 206:2
provided [9] - 3:22, 16:13, 38:21, 112:13, 151:22, 200:18, 208:3, 209:4, 211:11
provides [4] - 21:8, 160:4, 170:22, 171:21
providing [3] - 205:20, 206:16, 206:21
provision [6] - 121:17, 123:1, 153:5, 156:22, 158:19, 217:18
provisions [1] - 220:9
proviso [1] - 10:23
prudence [3] - 25:5, 123:4, 148:3
prudential [2] - 119:24, 162:21
Public [3] - 4:9, 230:4, 231:5
publicly [1] - 208:6
published [1] - 208:4
pulled [1] - 178:4
purely [1] - 156:6
purpose [4] - 220:22, 222:14, 222:16, 222:20
purposes [5] - 22:5, 43:5, 48:21, 67:1, 82:2
pursuant [2] - 4:7, 230:6
put [14] - 69:18, 87:23, 102:5, 113:23, 134:8, 154:19, 154:20, 157:10, 159:20, 194:11, 202:18, 206:7, 209:14, 225:15
putting [4] - 95:18, 108:19, 115:20, 224:18
puzzle [1] - 188:25

Q

quadrennial [1] - 173:4
qualification [1] - 209:15
qualified [4] - 25:18, 153:3, 214:7, 230:4
qualifier [2] - 13:24, 22:17
qualitative [1] - 38:17
qualities [1] - 36:25
quality [3] - 35:14, 35:21, 37:11
quantities [1] - 211:5
quarter [1] - 169:13
questions [15] - 6:25, 12:21, 18:10, 18:11, 18:25, 153:3, 216:3, 216:15, 226:12, 226:15, 226:23, 227:20, 227:22, 229:1, 229:17
quick [2] - 196:18, 228:5
quite [3] - 37:25, 108:6, 118:23
quiz [1] - 125:4

R

R-by-C [2] - 41:3, 41:9
race [16] - 32:21, 32:22, 33:3, 33:13, 33:19, 35:15, 35:19, 36:5, 41:12, 41:14, 42:10, 43:6, 46:12, 56:9, 192:10, 213:18
races [16] - 32:20, 33:22, 34:22, 39:8, 41:17, 43:11, 43:16, 44:19, 55:6, 55:8, 55:13, 56:20, 175:14, 191:12, 213:24, 214:1
racial [5] - 43:22, 44:9, 46:6, 46:7, 84:8
racially [19] - 17:16, 26:16, 26:25, 28:1, 32:21, 45:3, 45:17, 46:4, 46:14, 47:13, 55:9, 55:18, 56:9, 56:12, 56:18, 192:2, 192:16, 210:14, 210:19
Racine [5] - 161:10, 161:14, 161:22, 162:6
radical [1] - 103:21
radically [1] - 222:25
rails [1] - 119:25
raise [3] - 12:21, 44:7, 166:17
raised [1] - 145:9

RAMIREZ [1] - 2:9
RAMIRO [1] - 2:9
ran [2] - 44:19, 189:14
range [6] - 29:17, 31:12, 38:14, 83:16, 137:14, 181:19
rank [3] - 105:9, 105:10, 154:25
rarely [1] - 12:16
rate [1] - 61:11
rates [3] - 15:1, 15:2, 58:21
rather [4] - 62:23, 99:10, 111:15, 114:14
ratio [5] - 78:3, 80:2, 80:10, 134:20, 134:21
ratios [2] - 134:24, 135:7
rattle [1] - 218:14
reach [7] - 47:16, 115:4, 116:5, 118:19, 118:23, 140:2, 205:2
reached [3] - 178:7, 178:8, 205:3
reaching [4] - 58:10, 111:19, 113:15, 140:10
read [15] - 64:8, 64:10, 115:22, 147:6, 147:7, 156:16, 163:22, 177:19, 177:20, 178:3, 180:25, 181:2, 197:1, 209:6, 212:9
reading [3] - 170:21, 192:22, 207:3
realistic [2] - 178:16, 178:19
reallocated [1] - 228:8
really [7] - 38:25, 42:22, 44:2, 49:24, 76:14, 104:9, 125:10
reapportionment [2] - 99:5, 222:15
reason [19] - 12:15, 27:21, 67:15, 81:19, 87:20, 104:2, 133:4, 147:11, 169:1, 169:7, 171:4, 183:8, 184:16, 184:18, 187:21, 188:6, 206:2, 211:16, 227:9
reasonable [4] - 179:23, 180:1, 180:2, 182:14
reasons [3] - 11:16, 144:21, 154:23
rebuttal [16] - 3:13, 75:4, 129:2, 129:3, 170:10, 175:5, 176:14, 187:6, 187:15, 188:9, 194:3, 194:5, 194:7, 206:23, 208:5, 214:24
recalculate [2] - 143:5, 143:24
recalled [3] - 136:25, 173:17, 173:20
recalling [1] - 199:18
recently [2] - 214:19, 229:3
recess [1] - 176:13
Recess [8] - 57:1, 71:23, 91:21, 122:15, 133:17, 142:7, 205:7, 214:13
recognized [2] - 104:7, 224:17
recognizing [2] - 92:4, 220:1
recollection [4] - 51:5, 122:1, 134:4, 206:4
reconfiguration [1] - 162:18
reconfigure [3] - 139:3, 139:24, 222:25
reconfigured [3] - 147:13, 161:13, 161:21
reconnected [1] - 161:23
reconnection [1] - 162:4
record [9] - 7:11, 71:24, 122:14, 127:13, 133:12, 133:16, 135:10, 208:16, 230:18
recourse [1] - 125:23
recreate [1] - 140:18
recreated [3] - 141:16, 142:8, 142:10
redistrict [1] - 158:24
redistricted [4] - 157:18, 161:8, 172:5, 174:19
redistricting [68] - 6:18, 7:25, 9:7, 12:8, 13:10, 13:11, 13:14, 14:3, 14:14, 84:15, 86:22, 92:3, 92:6, 93:14, 102:9, 103:11, 103:13, 104:4, 104:8, 104:21, 106:4, 107:25, 108:4, 108:13, 108:21, 112:14, 112:23, 120:10, 123:6, 123:19, 126:14, 126:25, 128:3, 129:19, 130:6, 152:25, 154:7, 154:15, 154:20, 155:14, 155:20, 156:2, 158:10, 159:4, 160:14, 160:18, 163:9, 164:15, 169:13, 171:23, 172:14, 176:23, 180:7, 182:1, 198:6, 198:23, 202:9, 202:15, 217:5, 217:19, 220:22, 222:13, 222:15, 222:23, 225:19, 227:3, 227:8, 229:4
redraw [1] - 112:4
redrawn [2] - 157:11, 157:13
reduce [6] - 54:13, 59:1, 156:9, 188:17, 203:6, 228:11
reduced [3] - 21:19, 170:6, 230:16
reducing [3] - 55:25, 140:21, 140:23
reelected [3] - 170:24, 183:18, 183:20
refer [10] - 82:3, 121:21, 125:13, 141:7, 169:11, 176:19, 187:5, 188:9, 201:3, 216:25
reference [8] - 56:7, 81:24, 115:3, 124:15, 126:12, 151:1, 168:20, 206:9
referenced [1] - 133:25
referendum [1] - 94:21
referred [6] - 19:12, 57:5, 58:14, 73:19, 76:7, 151:4
referring [6] - 14:8, 124:18, 125:16, 129:9, 150:22, 156:20
refers [4] - 124:16, 205:17, 206:15, 206:20
reflected [1] - 145:18
reflection [1] - 211:4
reflects [2] - 65:13, 203:20
refresh [1] - 122:1
regard [6] - 36:3, 55:15, 91:2, 163:1, 163:2, 222:13
regarded [3] - 12:19, 118:21, 189:1
regarding [1] - 229:4
regardless [2] - 66:19, 218:20
register [16] - 53:18, 61:10, 61:16, 61:22, 61:23, 62:2, 62:6, 62:7, 62:10, 63:8, 63:12, 63:20, 66:11, 66:18, 66:20, 66:21
registered [1] - 66:14
registering [1] - 67:11
registration [7] - 15:1, 60:14, 60:15, 61:12, 62:24, 135:21, 215:8
regression [10] - 28:22, 28:23, 28:24, 37:4, 89:24, 90:3, 90:5, 91:6, 91:9
regular [7] - 78:8, 78:15, 79:8, 80:14, 82:14, 82:20, 176:4
regularity [3] - 77:19, 78:16, 78:17
regularly [5] - 171:2, 172:18, 173:4, 173:6, 174:24
REID [1] - 2:5
REINHART [1] - 5:6
rejected [1] - 10:9
relate [1] - 91:25
related [2] - 75:3, 230:20
relates [1] - 25:13
relation [1] - 108:22
relationship [18] - 32:12, 78:22, 79:9, 80:13, 82:13, 82:18, 86:24, 96:19, 222:21, 222:22, 223:9, 223:10, 223:14, 223:16, 223:21, 224:8, 224:19, 224:20
relationships [4] - 97:14, 101:3, 222:4, 223:3
relative [7] - 106:3, 110:2, 116:9, 138:9, 203:3, 203:25, 230:23
relatively [7] - 16:17, 31:8, 34:7, 98:21, 136:7, 136:8, 203:7
relied [2] - 217:13, 220:8
Relief [1] - 3:17
rely [2] - 218:18, 218:19
remainder [1] - 161:15
remained [1] - 201:20
remaining [1] - 108:21
remains [1] - 171:12
remember [10] - 6:20, 50:23, 51:12, 61:5, 165:2, 183:25, 209:8, 218:11, 218:20, 220:7
renumbering [1] - 177:4
rephrase [1] - 64:15
replaced [1] - 170:24
report [71] - 3:12, 3:13, 25:23, 35:10, 48:15, 56:16, 80:21, 90:15, 102:3, 107:23, 127:3, 127:12, 127:16, 127:23, 128:7, 129:2, 129:3, 129:6, 129:7, 129:9, 131:17, 133:3, 133:20, 133:25, 135:18, 136:14, 152:3, 152:5, 152:6, 152:16, 159:20, 159:24, 164:14, 164:18, 164:23, 165:9, 168:21, 170:2, 170:10, 175:5, 176:15, 187:7, 187:15, 188:9, 192:22, 194:3, 194:5, 194:8, 194:18, 195:21, 196:2, 206:2, 206:12, 206:23, 208:5, 214:6, 214:24, 215:15, 216:1, 216:18, 216:20, 219:23, 221:25, 226:19, 226:20, 228:11
Reporter [3] - 1:21, 4:9, 230:3
reporter [2] - 7:2, 163:22
reporting [2] - 28:7, 29:2
reports [13] - 18:7, 25:11, 25:24, 49:25, 56:21, 74:1, 74:10, 75:3, 75:4, 88:19, 152:2, 193:24, 214:17

represent [3] - 184:13, 223:6, 223:20
representation [2] - 25:12, 123:12
representational [2] - 222:16, 222:22
representative [9] - 54:11, 96:21, 101:2, 184:1, 184:20, 188:24, 189:2, 190:24, 223:15
represented [14] - 49:17, 54:10, 55:7, 89:8, 90:10, 90:11, 113:12, 136:22, 168:23, 183:1, 184:4, 185:9, 185:14, 191:15
republican [18] - 89:16, 89:19, 90:9, 136:17, 137:11, 138:19, 139:11, 139:19, 140:11, 141:3, 142:2, 147:14, 164:21, 165:12, 165:13, 165:18, 166:4, 166:21
republicans [8] - 90:10, 136:22, 141:6, 141:9, 145:23, 147:20, 148:17, 148:18
republicans' [1] - 165:15
request [1] - 122:3
require [13] - 53:7, 55:19, 83:12, 89:10, 93:23, 94:4, 94:9, 94:25, 95:3, 95:21, 106:1, 218:4, 219:10
required [19] - 18:19, 72:9, 89:11, 111:23, 123:16, 130:7, 135:4, 156:9, 201:21, 203:4, 203:18, 203:25, 217:12, 217:14, 218:24, 219:6, 219:13, 222:11, 224:5
requirement [26] - 8:16, 14:1, 23:5, 24:6, 62:2, 76:9, 77:8, 77:13, 84:6, 85:4, 85:5, 93:1, 93:6, 93:9, 121:15, 122:21, 152:24, 155:18, 155:21, 217:4, 218:2, 220:13, 220:18, 221:5, 222:17, 226:5
requirements [9] - 9:5, 12:23, 12:25, 14:16, 49:22, 71:17, 129:18, 217:2, 217:22
requires [14] - 8:4, 19:8, 19:22, 24:8, 30:17, 31:5, 53:3, 53:22, 61:13, 121:17, 123:2, 124:2, 139:7, 220:19
research [3] - 48:7, 48:11, 69:25
residence [2] - 94:12, 226:2
resident [1] - 226:5
resolve [1] - 118:15
respect [28] - 8:5, 9:12, 24:14, 48:9, 48:16, 49:6, 52:10, 59:3, 67:6, 67:8, 67:21, 69:13, 79:5, 85:13, 92:9, 93:21, 98:13, 108:3, 109:21, 114:8, 114:10, 145:23, 150:19, 206:17, 215:13, 227:5, 227:20, 229:14
Respect [1] - 217:7
respected [1] - 116:12
respecting [6] - 8:7, 103:9, 109:24, 123:18, 124:16, 124:19
respectively [1] - 210:21
respond [2] - 215:21, 224:10
response [5] - 169:5, 169:11, 207:15, 214:24, 229:1
responses [2] - 162:2, 181:14
responsive [5] - 3:19, 207:24, 208:2, 208:24, 209:12
rest [4] - 108:25, 128:9, 210:18, 216:15
restricted [2] - 48:13, 77:4
result [8] - 55:12, 59:23, 106:2, 119:12, 131:22, 158:25, 170:25, 180:7
resulted [1] - 55:10
results [7] - 36:20, 37:17, 39:4, 45:16, 119:14, 137:1, 210:9
retained [2] - 128:13, 136:12
retainer [1] - 128:16
Retention [1] - 144:6
retention [38] - 116:10, 121:16, 121:18, 122:23, 123:16, 136:3, 136:6, 136:7, 136:15, 136:17, 136:21, 137:10, 138:24, 139:5, 139:12, 139:21, 140:7, 140:20, 140:23, 141:9, 141:19, 142:3, 142:16, 142:21, 143:11, 143:21, 144:16, 145:22, 146:2, 146:11, 146:22, 146:23, 147:4, 147:18, 147:20, 199:9, 199:12, 222:24
retroactively [1] - 60:25
retrospect [1] - 120:3
retrospectively [1] - 20:12
return [1] - 216:2
reunify [1] - 120:17
reunite [2] - 114:13, 117:21
reuniting [2] - 118:1, 146:21
review [3] - 194:21, 194:25, 207:21
reviewed [3] - 194:23, 211:15, 224:3
reviewing [1] - 85:25
revisions [1] - 110:13
RIBBLE [1] - 2:5
RICHARD [2] - 1:6
rightmost [1] - 143:20
Rights [35] - 8:10, 14:9, 14:14, 14:19, 14:20, 14:25, 16:23, 17:9, 19:20, 20:11, 20:14, 20:18, 22:9, 24:7, 24:13, 25:1, 25:13, 26:1, 33:18, 34:24, 57:12, 57:21, 58:12, 60:10, 64:19, 91:23, 104:18, 108:19, 114:12, 145:24, 146:1, 146:4, 211:23, 211:24
rights [6] - 15:9, 23:3, 23:15, 57:16, 68:24, 146:10
ring [1] - 204:16
rings [1] - 44:5
ripple [3] - 204:21, 204:23, 204:24
RISSEEUW [1] - 1:7
RMD [1] - 2:12
ROBSON [1] - 1:7
ROCHELLE [1] - 1:6
Roeck [13] - 78:13, 81:25, 82:5, 82:6, 82:8, 82:9, 82:17, 83:10, 150:2, 150:22, 151:7, 151:8, 151:12
ROECK [1] - 82:1
ROGERS [1] - 1:7
role [3] - 33:3, 60:20, 61:2
RON [1] - 1:4
RONALD [2] - 1:3, 1:10
room [1] - 117:17
roots [1] - 47:23
rotated [1] - 40:14
roughly [4] - 134:11, 140:7, 165:6, 228:14
round [7] - 6:19, 130:18, 130:19, 160:23, 160:25, 161:13, 182:1
row [1] - 213:18
rows [1] - 41:4
Rule [2] - 209:16, 209:19
rule [11] - 8:18, 9:15, 9:16, 10:3, 10:14, 10:21, 21:12, 30:19, 90:20, 145:2
rules [1] - 144:23
run [8] - 34:22, 47:24, 173:24, 174:2, 189:1, 210:10, 212:3, 212:10
running [5] - 32:24, 42:24, 44:18, 192:4, 226:8
rural [3] - 162:5, 162:8, 162:14
RYAN [1] - 2:4

S

S.C [4] - 4:10, 4:19, 5:6, 230:8
sacrificing [1] - 198:6
safe [2] - 11:10, 112:1
sake [5] - 60:21, 61:9, 104:16, 117:16, 138:1
sampling [1] - 197:3
SANCHEZ [1] - 1:7
SANCHEZ-BELL [1] - 1:7
Sandra [1] - 84:11
satisfactory [1] - 28:14
satisfied [2] - 21:2, 22:24
satisfy [2] - 22:16, 54:22
saw [2] - 44:22, 142:2
scattering [1] - 44:3
scheduled [5] - 171:2, 172:18, 173:4, 173:7, 174:24
SCHLIEPP [1] - 1:7
scholar [2] - 60:2, 148:5
science [3] - 30:1, 60:7, 104:15
scientist [3] - 30:4, 60:2, 148:5
scientists [1] - 29:22
scope [1] - 166:5
score [2] - 86:16, 166:22
scores [1] - 152:12
seal [1] - 231:2
SEAN [1] - 2:5
season [2] - 25:9, 176:5
seat [14] - 19:5, 21:4, 21:7, 140:17, 141:15, 142:8, 142:10, 145:3, 145:4, 145:6, 173:25, 174:1, 223:6
seats [5] - 16:14, 136:18, 141:6, 145:12, 145:13
second [28] - 12:11, 17:14, 22:14, 22:24, 23:17, 26:3, 26:14, 26:24, 27:6, 47:9, 52:18, 52:21, 69:19, 81:21, 131:8, 134:17, 160:2, 167:20, 168:4, 169:8, 196:17, 197:16, 205:8, 212:18, 213:6, 213:12, 215:2, 219:23
Second [1] - 3:17
second-guess [2] - 167:20, 168:4
second-guessing [1] - 169:8
section [10] - 14:24, 15:11, 15:12, 65:18, 121:24, 124:21, 131:4, 131:5, 149:22, 156:18

Section [9] - 15:13, 16:23, 18:20, 65:13, 65:14, 65:16, 65:17, 65:21, 127:25
sections [3] - 14:20, 14:23, 15:22
security [8] - 70:8, 70:15, 73:21, 74:4, 74:12, 74:20, 75:8, 75:14
see [56] - 20:2, 23:20, 25:22, 42:23, 55:9, 56:19, 61:4, 63:17, 64:1, 73:12, 88:7, 90:9, 95:11, 97:19, 101:2, 105:24, 127:24, 127:25, 128:5, 130:8, 131:14, 133:9, 140:14, 141:18, 143:17, 143:23, 145:8, 149:23, 159:25, 160:3, 160:6, 160:8, 168:20, 169:4, 176:18, 187:5, 195:11, 196:6, 197:19, 202:13, 203:12, 204:2, 205:10, 205:14, 205:18, 206:10, 207:2, 214:10, 215:23, 216:25, 217:9, 219:24, 220:4, 221:1, 222:7, 227:10
seeing [1] - 209:8
seem [3] - 109:10, 111:23, 218:17
segue [1] - 101:5
select [2] - 32:14, 36:5
selected [1] - 39:7
semantically [1] - 192:5
senate [37] - 8:12, 9:3, 9:12, 33:16, 77:12, 89:17, 92:17, 92:19, 92:24, 112:11, 134:22, 137:1, 152:17, 159:1, 161:11, 161:12, 161:14, 161:16, 161:20, 161:23, 173:7, 173:9, 173:10, 173:15, 174:3, 175:7, 175:18, 176:8, 177:4, 182:22, 184:1, 184:3, 184:9, 184:14, 195:24, 196:2, 200:14
senator [18] - 152:21, 156:17, 156:24, 157:1, 157:19, 157:23, 170:18, 171:25, 172:16, 172:18, 173:2, 173:3, 173:23, 174:8, 174:11, 174:14, 174:16, 174:21
senator's [1] - 156:19
senators [5] - 157:3, 170:5, 173:20, 175:12
sense [17] - 16:8, 29:21, 30:2, 39:5, 53:19, 60:16, 76:22, 78:19, 91:7, 108:24, 113:2, 129:25, 140:14, 162:16, 163:3, 189:24, 190:11
SENSENBRENNER [1] - 2:4
sentence [6] - 129:17, 131:8, 134:17, 150:16, 197:16, 217:1
separated [1] - 212:8
separately [1] - 210:4
series [2] - 28:23, 84:7
seriously [1] - 171:22
serve [1] - 222:15
set [10] - 36:10, 65:22, 96:9, 104:18, 123:15, 132:9, 148:7, 189:20, 204:15, 231:1
sets [2] - 148:20, 156:18
setting [2] - 108:18, 156:25
seven [1] - 152:10
seventh [2] - 193:21, 228:2
several [10] - 15:13, 25:7, 33:7, 33:10, 84:10, 87:3, 107:24, 201:22, 201:23, 225:17
shaking [1] - 7:4
shall [1] - 71:21
shape [16] - 77:19, 77:20, 77:22, 78:8, 78:14, 78:16, 78:23, 78:25, 79:9, 79:24, 80:4, 80:5, 80:14, 82:14, 82:20, 150:5
shaped [6] - 40:12, 84:13, 86:18, 95:14, 109:11, 225:25
shapes [1] - 80:23
share [3] - 17:18, 48:4, 79:17
shares [1] - 96:4
shed [3] - 199:5, 200:5, 201:10
sheet [1] - 142:22
SHEILA [1] - 1:4
shift [7] - 92:15, 132:5, 203:4, 203:5, 203:18, 204:24, 205:1
shift/change [1] - 134:20
shifted [4] - 131:10, 133:22, 157:10, 203:15
shifting [1] - 206:20
shifts [7] - 134:17, 159:2, 202:21, 203:3, 203:7, 203:25, 204:12
Shorewood [1] - 121:12
short [4] - 107:22, 176:10, 197:24, 197:25
shortest [1] - 78:4
shortly [1] - 107:23
show [24] - 8:5, 16:24, 17:12, 17:14, 17:16, 20:17, 21:3, 21:5, 22:13, 22:22, 26:17, 37:5, 54:23, 57:10, 73:6, 73:24, 89:18, 90:12, 90:25, 91:1, 119:17, 186:19, 187:25, 210:22
showed [1] - 89:14
showing [3] - 14:2, 19:2, 54:24
shown [3] - 91:11, 207:19, 227:12
shows [1] - 56:18
side [2] - 95:18, 108:19
signed [1] - 167:7
significance [3] - 65:3, 177:1, 178:5
significant [21] - 14:15, 35:20, 43:15, 44:20, 60:17, 62:20, 64:2, 66:6, 72:21, 89:15, 89:18, 101:10, 116:11, 121:4, 138:21, 146:8, 147:1, 157:8, 177:15, 179:3, 203:20
significantly [6] - 10:10, 44:23, 138:17, 144:16, 160:23, 214:7
similar [8] - 9:9, 79:18, 99:16, 138:25, 140:7, 140:13, 203:12, 219:21
similarly [2] - 139:6, 203:9
simple [4] - 22:4, 88:20, 136:8, 196:11
simply [26] - 20:20, 35:21, 37:16, 38:5, 38:8, 38:13, 38:19, 39:1, 39:11, 40:2, 44:4, 44:15, 51:17, 51:21, 65:10, 84:12, 102:24, 120:12, 126:15, 131:20, 140:17, 164:1, 177:21, 179:12, 192:9, 201:6
single [17] - 10:8, 19:5, 21:4, 21:7, 22:6, 32:8, 42:19, 81:1, 81:4, 81:6, 94:4, 112:10, 127:15, 161:14, 161:17, 222:19, 223:14
sit [7] - 11:14, 24:23, 25:10, 95:18, 110:15, 220:20, 228:22
sitting [3] - 68:6, 73:24, 80:24
situation [4] - 62:23, 118:8, 204:14, 225:9
six [8] - 51:6, 104:12, 172:15, 172:17, 172:25, 173:2, 192:24, 193:19
Six [1] - 133:10
size [3] - 21:11, 21:24, 31:11
slate [1] - 222:6
slightly [3] - 40:8, 112:19, 167:18
slip [1] - 227:2
slowly [1] - 94:24
small [21] - 16:17, 31:8, 53:20, 83:2, 98:21, 107:6, 107:8, 131:12, 153:21, 153:22, 154:1, 154:2, 154:5, 166:14, 177:13, 177:17, 177:22, 189:21, 221:10
smaller [7] - 9:23, 11:21, 12:1, 31:4, 83:13, 161:6, 169:19
smallest [3] - 8:23, 78:9, 79:24
so-called [1] - 229:4
social [10] - 60:1, 70:7, 70:15, 73:21, 74:4, 74:12, 74:20, 75:8, 75:14, 148:4
socioeconomic [6] - 58:23, 62:16, 62:23, 64:6, 64:15, 66:7
software [3] - 38:22, 41:5, 169:14
solely [1] - 37:20
solution [1] - 28:15
someone [22] - 7:22, 13:7, 16:21, 19:25, 20:12, 20:25, 58:8, 62:21, 70:5, 76:21, 118:22, 119:24, 154:18, 163:8, 163:11, 170:23, 174:22, 174:23, 218:8, 218:25, 222:12, 225:14
sometime [1] - 91:19
sometimes [5] - 40:4, 42:1, 42:18, 42:20
somewhat [7] - 34:1, 40:7, 47:4, 48:18, 87:8, 193:17, 203:13
somewhere [3] - 132:12, 140:18, 151:20
sorry [10] - 58:2, 67:4, 88:14, 125:20, 163:20, 164:12, 169:25, 202:17, 206:24, 219:22
sort [1] - 63:11
sounded [1] - 41:8
source [5] - 41:6, 145:7, 183:10, 212:1
sources [1] - 38:21
south [3] - 15:4, 35:9, 161:12
southeast [5] - 138:1, 138:4, 139:15, 141:15, 161:8
southeastern [1] - 99:12
spaces [2] - 127:14, 127:15
speaking [8] - 7:20, 9:11, 27:2, 72:25, 108:14, 142:19, 178:14, 224:12
speaks [1] - 69:21
specific [31] - 9:4, 24:8, 62:8, 67:9, 67:14, 67:15, 69:23, 70:1, 73:8, 81:21, 81:23, 85:22, 106:7, 111:9, 115:4, 118:15,

126:9, 156:14, 170:13, 177:11, 177:23, 178:6, 193:10, 202:11, 217:17, 218:20, 220:20, 221:7, 224:11, 225:7, 226:9
specifically [9] - 34:23, 52:2, 65:18, 123:7, 123:8, 181:23, 218:13, 220:8, 224:14
specifics [1] - 71:11
spectrum [1] - 34:2
split [24] - 12:12, 96:17, 96:22, 98:16, 99:10, 99:19, 100:12, 101:11, 102:24, 104:1, 105:20, 105:22, 111:17, 111:22, 116:5, 116:7, 126:8, 126:10, 126:19, 205:25, 206:13
splits [4] - 98:14, 113:20, 125:22, 126:24
splitting [6] - 109:22, 112:7, 124:23, 126:3, 126:22, 206:5
spot [4] - 99:24, 100:3, 100:12, 101:8
spots [1] - 113:9
spread [2] - 78:22, 83:3
Spreadsheet [2] - 3:15, 3:21
spreadsheet [9] - 132:2, 134:2, 142:20, 143:3, 143:15, 151:22, 199:18, 201:3, 201:14
spreadsheets [1] - 195:20
square [1] - 77:21
Square [2] - 205:17, 205:21
ss [1] - 230:1
stability [2] - 222:3, 223:2
stage [1] - 107:16
staggered [2] - 92:17, 152:17
stake [2] - 156:8, 225:24
stakeholders [1] - 101:14
stand [1] - 227:17
standard [16] - 9:13, 10:12, 24:1, 24:3, 24:13, 24:17, 25:14, 37:12, 37:16, 85:11, 102:22, 103:1, 111:16, 126:2, 148:19, 185:15
standards [6] - 8:11, 9:20, 12:14, 24:25, 118:25, 130:8
stands [3] - 76:5, 174:22, 174:23
stark [1] - 52:25
start [11] - 27:24, 96:1, 105:4, 106:11, 106:20, 106:25, 127:4, 149:24, 168:2, 197:12, 213:2
started [1] - 5:25
starting [1] - 113:7
starts [1] - 222:3
State [5] - 4:9, 4:12, 230:5, 230:10, 231:5
STATE [2] - 5:3, 230:1
state [99] - 8:2, 8:12, 9:2, 9:11, 9:20, 10:22, 10:25, 11:2, 11:18, 12:3, 13:24, 25:24, 33:9, 33:16, 59:17, 59:23, 59:24, 60:4, 60:7, 60:11, 60:15, 61:2, 61:13, 61:24, 62:11, 62:15, 62:19, 65:9, 65:10, 65:11, 65:20, 65:24, 66:4, 67:2, 67:19, 67:21, 68:2, 68:9, 68:23, 69:13, 69:20, 69:21, 70:19, 70:24, 70:25, 72:10, 73:24, 74:9, 75:6, 75:23, 77:11, 77:12, 87:6, 88:25, 92:16, 92:23, 93:7, 93:8, 93:9, 93:25, 94:7, 94:16, 94:18, 95:21, 96:11, 103:24, 105:14, 108:3, 113:5, 122:10, 124:13, 137:24, 139:1, 139:23, 153:6, 156:17, 158:5, 159:2, 161:8, 164:3, 164:15, 169:17, 175:18, 182:21, 197:21, 200:24, 201:17, 213:24, 219:7, 220:21, 222:19, 226:6, 226:22, 226:23
State's [1] - 131:13
statement [3] - 144:20, 183:17, 195:11
statements [1] - 105:11
STATES [1] - 1:1
states [17] - 9:5, 10:16, 15:3, 15:4, 71:4, 71:11, 71:17, 72:19, 77:5, 77:7, 94:15, 129:18, 129:22, 196:20, 217:4, 219:10, 224:22
States [2] - 4:6, 122:18
statewide [2] - 214:1, 215:7
stating [1] - 117:10
statistical [1] - 212:1
statistically [2] - 89:15, 89:18
statisticians [2] - 29:22, 214:7
status [3] - 46:23, 58:23, 66:7
statute [8] - 95:15, 124:5, 124:7, 124:18, 125:25, 153:8, 220:19, 220:21
statutes [14] - 84:4, 93:23, 94:3, 94:24, 95:2, 95:21, 123:9, 124:14, 125:14, 125:15, 125:23, 130:12, 148:20
statutory [7] - 126:13, 129:18, 153:1, 217:3, 217:18, 220:9, 220:13
stay [1] - 98:5
stayed [1] - 171:15
stem [1] - 217:22
step [6] - 30:12, 57:13, 67:5, 94:23, 97:11, 130:3
steps [4] - 62:8, 62:9, 62:13, 97:10
Stevens [1] - 99:15
stick [1] - 111:11
still [23] - 23:18, 34:16, 42:14, 44:22, 55:20, 66:20, 66:23, 69:5, 76:5, 93:18, 123:4, 142:13, 145:1, 155:10, 161:3, 171:1, 171:10, 171:19, 175:21, 186:11, 195:11, 203:13, 227:17
stop [5] - 12:20, 77:25, 106:21, 192:11, 192:13
stops [1] - 38:15
straight [1] - 87:7
straightforward [1] - 28:4
strange [1] - 99:11
strategic [1] - 175:11
strategy [1] - 16:15
Street [6] - 4:11, 4:20, 4:23, 5:3, 5:6, 230:9
strict [1] - 71:19
stricter [1] - 8:17
strictest [1] - 71:14
strictly [1] - 100:9
strike [1] - 11:12
stringency [1] - 62:14
strong [2] - 66:17, 158:21
strongholds [1] - 138:20
strongly [3] - 47:4, 139:19, 179:2
struck [1] - 11:1
structure [1] - 101:3
struggle [1] - 115:22
stuck [1] - 23:12
studied [2] - 70:3, 169:21
studies [9] - 63:4, 71:2, 72:19, 73:6, 73:19, 76:7, 76:18, 77:1, 77:8
studying [2] - 26:9, 76:10
stuff [1] - 216:16
sub [1] - 149:17
subdirectory [1] - 211:22
Subdirectory [1] - 211:24
subdivision [1] - 99:9
subdivisions [13] - 8:6, 87:12, 92:10, 103:10, 109:21, 109:23, 114:9, 114:11, 115:10, 116:13, 124:16, 126:10, 217:8
subject [1] - 58:16
subjective [8] - 39:9, 41:11, 84:3, 84:17, 84:18, 106:5, 106:6, 116:14
submit [1] - 215:25
submitted [10] - 18:3, 56:16, 74:2, 74:14, 129:5, 129:8, 164:14, 164:18, 193:24, 195:15
submitting [1] - 215:15
Subparagraph [1] - 197:16
subpoena [4] - 3:20, 4:8, 207:14, 230:6
subsequent [3] - 171:1, 215:19, 224:1
subset [1] - 213:20
subsets [2] - 212:25, 213:1
subsidiary [1] - 8:7
substantial [3] - 68:15, 175:3, 182:12
substantially [3] - 169:19, 175:5, 202:6
substitute [1] - 167:8
substituted [1] - 144:18
subtracting [1] - 211:1
suburban [1] - 138:10
suburbs [1] - 99:13
suffice [6] - 70:9, 70:11, 70:17, 70:21, 71:6, 75:21
sufficient [18] - 21:17, 21:22, 22:10, 30:18, 68:22, 70:6, 71:7, 97:17, 106:23, 139:2, 140:25, 163:5, 163:11, 188:14, 190:25, 228:1, 228:16, 228:17
sufficiently [12] - 17:12, 18:24, 19:3, 53:14, 55:12, 84:19, 85:3, 85:8, 85:14, 135:4, 158:21, 172:9
suggest [7] - 58:5, 135:7, 136:15, 166:23, 178:9, 182:14, 186:9
suggesting [2] - 76:8, 192:23
suggests [4] - 43:20, 69:24, 69:25, 74:2
Suite [4] - 4:20, 4:23, 5:7, 5:14
sum [2] - 200:3, 209:11
summary [1] - 53:6
summed [1] - 131:20
summer [2] - 170:6, 170:9
Sunday [1] - 211:11
superintendent [1] - 213:25
superior [3] - 30:2,

165:13, 165:19
supervisor [1] - 213:19
supplied [1] - 145:19
support [7] - 18:20, 26:10, 26:11, 26:17, 26:21, 26:22, 164:19
supported [3] - 165:4, 210:23, 210:25
supporting [1] - 164:25
supportive [2] - 17:20, 17:21
suppose [7] - 81:19, 85:2, 88:17, 100:17, 183:19, 210:21, 215:19
supposed [3] - 91:18, 96:15, 226:25
suppress [2] - 58:25
supreme [10] - 10:5, 10:13, 16:25, 18:16, 45:22, 46:10, 84:7, 84:10, 148:24, 159:2
Supreme [1] - 10:15
surround [2] - 78:9, 150:5
surrounded [1] - 204:9
surrounding [6] - 99:8, 99:22, 126:24, 138:3, 138:11, 138:18
Survey [2] - 181:18, 187:9
Susan [2] - 1:21, 4:8
SUSAN [1] - 230:3
suspect [8] - 118:19, 128:21, 147:1, 147:11, 188:5, 199:15, 203:20, 204:5
switch [2] - 135:11, 205:5
sworn [2] - 5:18, 230:12
system [1] - 215:8
systems [1] - 107:6

T

tabbed [1] - 127:14
table [12] - 38:13, 39:23, 40:9, 144:9, 151:19, 163:19, 187:14, 196:25, 210:9, 211:11, 211:15, 211:21
tables [4] - 40:1, 40:8, 41:2, 132:25
tabs [1] - 127:17
talks [2] - 54:18, 58:4
TAMMY [1] - 1:10
tape [2] - 71:21, 206:25
target [1] - 198:24
task [1] - 206:6
technically [1] - 199:13
technology [2] - 169:14, 169:17
ten [4] - 11:25, 49:13, 51:15, 111:17
tend [17] - 12:6, 17:18, 17:20, 26:10, 26:11, 26:21, 34:6, 34:10, 47:2, 47:3, 53:10, 64:4, 142:3, 146:4, 188:17, 195:9
tended [3] - 138:12, 144:11, 146:13
tendency [1] - 34:11
tendril [1] - 226:1
tends [1] - 31:7
tens [1] - 12:4
tension [1] - 120:16
tenth [1] - 152:8
term [8] - 84:4, 148:9, 156:19, 156:25, 174:3, 174:16, 178:19, 178:20
terms [37] - 9:6, 12:4, 18:9, 26:1, 26:25, 27:3, 27:11, 27:16, 27:17, 31:21, 39:15, 44:12, 44:17, 58:22, 60:7, 62:25, 68:12, 69:21, 71:11, 71:14, 73:16, 83:3, 85:22, 91:25, 92:23, 93:21, 105:16, 107:5, 117:11, 150:23, 152:17, 160:21, 167:18, 177:16, 197:5, 217:21, 223:15
territories [1] - 139:19
territory [1] - 24:8
test [30] - 17:9, 17:11, 17:23, 19:12, 58:14, 58:18, 59:9, 65:12, 79:22, 80:6, 80:17, 81:1, 81:21, 81:22, 81:25, 82:4, 82:5, 82:9, 82:17, 82:25, 83:10, 89:10, 89:14, 148:21, 150:3, 150:22, 151:7, 151:8, 151:11, 151:12
testified [3] - 5:19, 147:8, 228:25
testify [2] - 75:2, 230:12
testimony [1] - 230:18
tests [7] - 78:18, 79:15, 79:17, 79:20, 80:19, 81:16, 82:12
text [5] - 123:3, 128:9, 177:11, 196:17, 197:1
thankfully [1] - 216:24
THE [13] - 17:6, 88:14, 115:15, 115:17, 122:2, 124:4, 124:10, 127:19, 127:22, 164:12, 176:10, 207:1, 216:8
themselves [2] - 51:19, 162:9
theoretical [1] - 199:20
theoretically [1] - 198:17
theory [1] - 181:11
therefore [1] - 101:10
thereof [1] - 219:24
thereupon [1] - 230:15
thespian [1] - 163:16
thick [1] - 78:6
thin [1] - 78:6
thinking [5] - 54:17, 107:5, 154:24, 166:13, 225:5
third [20] - 17:15, 26:14, 26:24, 27:6, 29:8, 52:17, 52:18, 52:22, 53:1, 53:7, 53:8, 53:25, 54:18, 70:13, 119:17, 128:2, 129:13, 212:21, 213:9, 226:21
THOMAS [5] - 1:15, 1:16, 2:4, 2:14, 2:15
Thornburg [4] - 17:7, 18:8, 18:13, 19:11
thousand [2] - 201:22, 201:23
thousands [2] - 12:4, 33:10
thread [1] - 96:7
three [28] - 6:8, 17:9, 19:18, 28:20, 40:14, 57:3, 57:5, 57:10, 105:11, 110:17, 127:24, 144:13, 149:17, 151:9, 159:13, 164:21, 167:7, 167:9, 167:13, 167:20, 168:5, 171:9, 174:9, 176:9, 206:15, 206:17, 212:14
three-judge [5] - 159:13, 167:7, 167:13, 167:20, 168:5
three-part [1] - 17:9
threshold [14] - 11:19, 19:12, 57:5, 57:14, 83:17, 84:6, 85:11, 98:4, 109:6, 120:23, 123:15, 153:19, 178:10, 193:5
thresholds [1] - 57:19
throughout [2] - 107:3, 113:5
thumb [6] - 9:16, 10:3, 10:4, 10:14, 10:21, 30:20
THYSSEN [1] - 1:8
ticket [1] - 191:14
TIMOTHY [2] - 1:16, 2:15
today [22] - 25:11, 56:22, 76:5, 82:2, 95:18, 95:23, 133:1, 152:1, 182:7, 185:22, 187:4, 188:1, 191:4, 207:22, 208:3, 209:8, 214:15, 216:13, 218:23, 219:2, 225:20, 228:22
Todd [1] - 5:13
Together [4] - 212:18, 212:21, 213:2
together [11] - 26:25, 30:16, 52:19, 100:16, 100:22, 102:1, 104:1, 113:11, 113:24, 206:7, 225:16
took [8] - 23:11, 49:12, 51:20, 57:2, 133:18, 133:23, 134:2, 173:16
tools [1] - 52:2
top [8] - 7:8, 8:1, 10:7, 11:5, 104:10, 160:7, 218:14, 220:23
toss [3] - 41:14, 41:24, 41:25
total [7] - 132:4, 205:1, 209:11, 213:4, 213:6, 213:9, 221:15
totality [13] - 17:22, 55:14, 57:22, 58:15, 58:18, 59:8, 64:18, 65:12, 67:5, 67:9, 67:20, 67:22, 110:11
totally [1] - 115:25
totals [2] - 131:20, 133:9
touch [1] - 163:18
touching [1] - 230:13
tougher [1] - 73:15
town [1] - 121:11
townships [1] - 109:24
track [4] - 20:4, 20:5, 108:11, 115:12
traditional [40] - 9:6, 13:11, 13:14, 14:3, 86:22, 92:3, 92:5, 93:14, 102:9, 103:11, 103:13, 104:4, 104:20, 107:24, 108:4, 108:12, 108:21, 111:1, 112:23, 123:5, 123:11, 123:22, 126:13, 126:25, 129:19, 153:20, 154:15, 154:19, 155:14, 155:19, 198:22, 202:9, 202:15, 217:5, 217:19, 222:13, 222:23, 225:3, 225:18, 227:7
traditionally [1] - 123:20
transcript [4] - 3:22, 3:24, 151:2, 207:4
transcription [1] - 230:17
translate [1] - 223:4
travel [1] - 72:18
TRAVIS [1] - 1:8
treating [1] - 188:10
treatment [1] - 9:8
trepidation [1] - 209:24
trial [7] - 74:18, 74:22, 74:24, 75:2, 82:3, 108:8, 128:19
tricky [1] - 115:12
tried [2] - 145:2, 201:16
true [20] - 24:24, 39:6, 46:2, 46:18, 48:16, 57:18, 60:23, 63:3, 79:16, 93:4, 101:13, 154:3, 157:7, 174:5, 183:17, 183:18, 199:2, 203:22, 204:7, 230:18
trust [1] - 169:3
truth [2] - 230:12,

230:13
try [17] - 6:23, 7:4, 7:7, 8:22, 38:12, 43:3, 78:18, 81:15, 82:11, 83:5, 83:22, 101:25, 110:14, 118:15, 181:3, 181:4, 187:21
trying [24] - 13:8, 20:17, 28:16, 39:2, 43:7, 59:9, 59:16, 60:9, 65:8, 79:4, 81:16, 90:6, 90:7, 102:20, 112:18, 113:9, 115:11, 132:22, 183:25, 192:5, 196:11, 202:8, 206:7, 225:15
Tuesday [1] - 211:12
turn [10] - 53:18, 92:2, 127:23, 131:2, 159:21, 160:1, 205:8, 207:16, 216:18, 219:21
turned [1] - 105:21
turning [2] - 192:20, 196:3
turnout [13] - 15:2, 60:13, 63:12, 63:16, 72:2, 175:5, 175:21, 188:16, 188:17, 189:14, 189:22, 210:18
twice [2] - 6:17, 132:19
two [61] - 6:15, 12:12, 13:17, 14:20, 14:23, 15:22, 16:2, 22:12, 27:7, 36:24, 39:22, 40:4, 40:5, 40:9, 41:2, 43:1, 63:23, 68:11, 69:11, 80:11, 82:11, 92:13, 99:4, 105:11, 113:17, 113:23, 118:24, 120:11, 132:7, 132:8, 132:18, 133:10, 134:9, 140:24, 148:24, 149:21, 151:13, 152:20, 154:22, 157:24, 160:6, 160:13, 161:24, 164:19, 164:20, 165:3, 166:7, 169:10, 175:4, 176:9, 200:3, 208:14, 208:17, 216:23, 224:18, 225:16
two-by-two [3] - 39:22, 40:9, 41:2
two-year [1] - 152:20
type [8] - 62:11, 89:22, 91:4, 96:4, 96:8, 100:7, 100:8, 105:23
types [9] - 26:12, 42:8, 47:19, 58:4, 70:5, 71:6, 79:2, 102:22, 136:2
typewriting [1] - 230:16
typically [14] - 9:8, 10:9, 18:16, 26:20, 27:10, 30:17, 31:17, 31:21, 38:3, 42:21, 53:21, 78:8, 94:18, 113:6

U

U.S [1] - 148:23
ultimate [3] - 46:5, 59:11, 110:8
ultimately [3] - 85:1, 110:9, 164:4
unable [1] - 157:23
unaware [1] - 25:15
under [40] - 17:22, 18:20, 19:20, 23:24, 24:1, 25:1, 42:2, 54:5, 54:9, 55:17, 58:11, 75:12, 99:10, 127:24, 130:7, 143:25, 144:2, 144:5, 148:23, 155:4, 165:8, 166:18, 167:17, 168:19, 168:24, 171:21, 172:11, 180:23, 181:10, 186:9, 186:18, 186:23, 187:12, 188:18, 190:2, 197:9, 209:18, 211:9, 215:7
underlined [1] - 144:6
underpopulated [1] - 199:23
understood [9] - 7:12, 7:16, 7:19, 9:16, 10:3, 60:8, 60:14, 105:19, 220:24
uneducated [1] - 163:10
uniformity [1] - 113:4
uniformly [2] - 34:9, 191:14
unit [3] - 29:2, 33:11, 33:12
UNITED [1] - 1:1
United [2] - 4:6, 122:18
units [1] - 205:14
universe [1] - 203:24
unless [5] - 12:14, 41:25, 103:20, 104:2, 174:18
unlikely [3] - 146:3, 148:6, 192:19
unnecessarily [5] - 92:15, 96:17, 99:19, 109:22, 126:9
unnecessary [1] - 134:18
unopposed [1] - 189:1
unpersuaded [1] - 162:17
unusable [2] - 41:25, 42:3
unwilling [1] - 46:1
up [61] - 13:20, 24:23, 28:14, 30:3, 30:12, 32:17, 38:16, 47:18, 48:24, 56:6, 62:5, 63:13, 63:14, 66:21, 66:24, 67:4, 68:25, 85:2, 92:20, 100:18, 101:4, 105:24, 108:10, 124:14, 125:11, 125:13, 125:21, 126:1, 128:20, 130:4, 131:20, 132:4, 132:22, 133:9, 139:7, 145:15, 149:14, 157:13, 159:19, 161:9, 169:25, 181:14, 189:20, 191:13, 198:16, 198:20, 198:25, 200:4, 201:5, 201:8, 201:12, 203:18, 204:8, 204:9, 207:19, 212:6, 221:21, 226:1, 228:8, 228:14
updating [1] - 215:14
Upper [1] - 87:10
upper [5] - 29:16, 31:9, 31:12, 153:16, 178:9
urban [1] - 162:14
useful [9] - 31:1, 31:7, 33:25, 34:2, 36:10, 38:4, 48:6, 55:20, 80:12
uses [5] - 36:16, 40:8, 40:15, 41:9, 148:13
utilize [1] - 39:20

V

valid [3] - 12:22, 13:1, 225:12
validity [1] - 167:9
Valley [1] - 206:9
value [2] - 80:3, 223:19
values [7] - 29:17, 38:14, 80:4, 151:17, 153:23, 155:9, 212:9
VAN [1] - 5:6
VAP [2] - 212:18, 213:3
VARA [1] - 2:9
variable [3] - 66:16, 89:7, 91:8
variables [6] - 90:1, 91:4, 91:6, 91:12, 116:10, 182:10
variant [6] - 40:24, 41:2, 80:6, 80:16, 81:22, 151:11
variants [4] - 39:16, 39:19, 39:21, 80:21
variate [1] - 39:20
variety [6] - 28:3, 34:3, 87:13, 109:2, 114:6, 172:6
various [5] - 9:5, 82:10, 100:2, 105:9, 181:24
variously [1] - 28:22
vary [3] - 87:10, 116:23, 117:8
vastly [1] - 169:15
vein [2] - 219:21, 222:10
VERA [1] - 1:4
verbal [1] - 6:25
versa [1] - 7:9
versus [16] - 31:20, 67:19, 69:15, 77:2, 85:14, 92:1, 120:15, 125:12, 135:20, 136:17, 136:22, 137:11, 145:23, 147:19, 162:22, 200:20
vice [1] - 7:9
Video [1] - 5:13
VIDEOTAPE [2] - 1:18, 4:1
Vieth [2] - 149:1, 149:2
view [9] - 52:16, 84:11, 90:3, 90:16, 125:4, 147:3, 155:5, 172:22, 173:5
viewed [1] - 148:8
views [5] - 27:17, 47:10, 85:24, 101:1, 101:14
village [1] - 121:12
violated [3] - 24:18, 157:25, 158:12
violates [2] - 16:22, 24:12
violation [5] - 34:24, 57:11, 60:10, 177:5, 224:25
violations [1] - 130:1
virtually [1] - 107:16
visually [1] - 207:2
vitae [1] - 6:12
Voces [5] - 4:24, 49:10, 49:18, 52:6, 193:25
VOCES [1] - 2:8
VOCKE [2] - 1:16, 2:15
volume [2] - 122:16, 124:9
voluntarily [1] - 158:4
voluntary [2] - 158:9, 158:10
vote [90] - 15:14, 17:18, 33:3, 40:22, 42:16, 44:1, 44:5, 44:8, 44:16, 44:24, 45:4, 45:25, 46:1, 53:10, 61:11, 61:13, 61:16, 63:8, 63:13, 63:20, 66:11, 66:14, 66:15, 66:23, 68:8, 68:17, 69:3, 69:5, 69:14, 69:16, 69:22, 70:6, 70:10, 70:18, 70:25, 71:7, 71:12, 71:16, 72:9, 73:1, 73:4, 73:8, 73:18, 76:10, 76:25, 92:21, 120:19, 152:21, 156:16, 156:24, 157:6, 157:17, 157:19, 157:23, 158:6, 170:9, 170:14, 170:16, 170:17, 170:22, 171:6, 171:7, 171:8, 171:11, 171:17, 171:19, 171:25, 172:1, 172:4, 172:9, 172:11, 172:15, 172:21, 172:23, 173:1, 173:3, 173:6, 173:12, 174:8, 174:10, 174:13, 174:15, 175:24,

179:2, 179:6, 190:13, 222:19
voted [10] - 29:4, 36:22, 37:6, 42:4, 44:20, 157:16, 171:18, 173:10, 189:14, 210:21
voter [23] - 19:20, 46:24, 59:5, 68:13, 69:18, 69:23, 70:3, 70:17, 71:3, 71:5, 71:18, 71:19, 72:1, 73:10, 75:12, 135:21, 156:23, 157:20, 158:11, 177:21, 215:7, 223:10, 223:14
voters [84] - 15:16, 15:20, 15:21, 16:4, 16:5, 16:18, 17:19, 21:17, 23:17, 24:18, 26:19, 26:21, 28:8, 28:25, 29:3, 32:13, 33:25, 34:5, 35:2, 35:5, 35:6, 35:12, 35:19, 35:23, 37:6, 37:7, 38:10, 39:23, 39:24, 40:2, 40:3, 40:4, 40:22, 44:24, 46:1, 46:7, 47:2, 47:3, 53:2, 53:10, 53:17, 53:21, 55:24, 55:25, 65:4, 68:23, 69:2, 70:2, 92:18, 130:7, 154:11, 154:13, 155:11, 156:10, 157:9, 157:11, 161:6, 165:6, 169:20, 171:5, 177:4, 177:12, 177:17, 178:10, 178:21, 189:22, 193:14, 206:7, 210:20, 210:23, 210:25, 215:6, 222:4, 222:18, 223:2, 223:12, 223:18, 224:2, 224:20, 228:6, 228:15
voters' [1] - 224:20
votes [11] - 16:6, 23:18, 27:4, 28:1, 30:9, 30:10, 31:2, 38:9, 52:22, 52:24, 153:17
Voting [35] - 8:9, 14:9, 14:14, 14:19, 14:20, 14:24, 16:23, 17:8, 19:20, 20:11, 20:14, 20:18, 22:9, 24:7, 24:13, 25:1, 25:13, 26:1, 33:18, 34:24, 57:12, 57:21, 58:12, 60:10, 64:19, 91:23, 104:18, 108:18, 114:12, 145:24, 146:1, 146:4, 211:23, 211:24
voting [149] - 15:7, 15:9, 15:20, 15:23, 16:8, 17:17, 23:3, 23:15, 25:25, 26:9, 26:16, 27:1, 27:7, 27:11, 27:20, 27:21, 27:24, 27:25, 28:5, 31:22, 32:22, 34:17, 35:7, 36:3, 36:6, 39:21, 45:3, 45:17, 46:4, 46:5, 46:12, 46:14, 47:10, 47:13, 49:2, 49:5, 50:9, 50:12, 50:13, 50:20, 50:23, 51:3, 51:4, 51:8, 53:4, 53:5, 53:10, 54:19, 55:10, 55:19, 55:21, 56:9, 56:13, 56:19, 57:15, 63:1, 63:10, 65:19, 67:11, 68:9, 68:24, 70:21, 72:22, 77:2, 77:3, 77:4, 77:6, 77:9, 114:21, 117:24, 118:1, 120:16, 130:21, 146:10, 152:15, 152:25, 154:8, 154:21, 154:23, 155:12, 155:18, 156:3, 156:13, 159:8, 164:24, 165:3, 165:8, 166:1, 166:7, 166:18, 166:25, 167:3, 167:12, 167:22, 168:6, 168:18, 168:24, 169:10, 170:3, 170:7, 172:14, 174:21, 176:2, 178:25, 179:3, 179:6, 179:8, 179:11, 179:13, 179:15, 179:24, 180:3, 180:6, 180:11, 180:14, 180:20, 180:22, 181:6, 181:8, 181:24, 182:6, 182:14, 182:15, 185:5, 185:7, 186:2, 186:4, 186:19, 186:20, 187:3, 187:10, 187:11, 187:13, 187:22, 191:3, 192:2, 192:17, 192:23, 210:14, 210:19, 213:4, 213:7, 213:10, 214:2, 228:7, 228:9, 228:12
VRA [1] - 25:1

W

wait [1] - 174:8
Wait [1] - 22:8
walk [1] - 31:14
walking [1] - 57:3
WARA [1] - 2:9
ward [8] - 28:6, 29:2, 30:23, 31:15, 31:17, 32:8, 33:12, 42:4
Wards [2] - 213:13, 213:14
wards [28] - 31:6, 31:18, 31:23, 32:5, 32:6, 32:11, 32:13, 32:14, 32:19, 33:5, 33:7, 33:10, 33:11, 33:19, 36:8, 36:16, 36:17, 56:13, 111:2, 111:4, 210:11, 213:17, 213:20, 213:22, 214:3, 214:5
warrant [1] - 163:6
wasted [2] - 16:8, 23:19
Water [1] - 5:6
water [4] - 87:2, 87:5, 90:2, 109:2
Waukesha [2] - 138:19, 140:6
Wausau [1] - 99:15
ways [10] - 13:22, 15:24, 28:3, 29:23, 29:24, 32:15, 33:21, 97:2, 134:7, 224:10
Wednesday [1] - 215:3
weigh [3] - 155:12, 155:18, 156:2
weighed [1] - 108:5
weight [13] - 103:14, 104:5, 104:22, 104:23, 105:15, 108:20, 112:21, 117:4, 117:25, 154:19, 154:24, 157:8, 222:20
weighting [1] - 108:12
welcome [2] - 98:9, 216:8
well-known [2] - 29:20, 91:5
Wendelberger [4] - 3:16, 6:19, 130:19, 194:19
west [1] - 105:4
West [1] - 5:3
whereas [5] - 37:2, 38:8, 65:20, 158:10, 161:9
wherein [1] - 4:3
whereof [1] - 231:1
white [34] - 17:19, 17:20, 26:19, 26:21, 28:25, 29:3, 29:5, 29:11, 30:20, 30:24, 33:2, 36:23, 37:6, 39:23, 40:2, 40:4, 41:19, 42:17, 42:19, 44:19, 44:24, 46:1, 49:17, 53:9, 53:17, 55:11, 55:24, 63:25, 185:14, 192:4, 210:20, 210:23, 210:25
whites [4] - 36:22, 42:16, 44:20, 72:22
whole [8] - 44:2, 86:5, 86:9, 94:10, 97:25, 191:7, 203:23, 222:14
WI [1] - 5:14
wide [1] - 181:19
widely [2] - 9:16, 10:2
wildly [1] - 120:3
win [1] - 55:22
wind [3] - 92:20, 157:13, 189:20
winning [1] - 175:16
Wisconsin [65] - 1:13, 1:20, 2:1, 2:12, 2:16, 4:4, 4:7, 4:10, 4:12, 4:20, 4:24, 5:3, 5:7, 5:10, 5:10, 8:3, 10:15, 10:21, 14:24, 15:12, 33:16, 59:4, 70:25, 72:19, 75:7, 75:12, 75:23, 77:12, 87:7, 88:4, 88:9, 89:1, 92:16, 92:18, 93:25, 95:2, 95:19, 95:21, 96:11, 99:15, 103:22, 108:3, 122:18, 122:21, 138:2, 138:4, 139:15, 141:15, 152:17, 153:7, 153:8, 155:4, 156:14, 156:23, 158:6, 164:16, 197:22, 200:24, 201:17, 219:13, 220:15, 220:22, 230:5, 230:10, 231:5
WISCONSIN [3] - 1:1, 5:3, 230:1
Wisconsin's [4] - 70:3, 71:3, 71:13, 72:1
wished [1] - 150:25
wit [1] - 230:11
Witness [1] - 3:2
witness [4] - 4:2, 5:18, 230:18, 231:1
WITNESS [13] - 17:6, 88:14, 115:15, 115:17, 122:2, 124:4, 124:10, 127:19, 127:22, 164:12, 176:10, 207:1, 216:8
won [1] - 192:10
wondering [3] - 54:22, 122:8, 170:12
Wood [1] - 99:3
word [4] - 34:7, 59:1, 106:16, 106:18
words [2] - 38:21, 209:16
works [1] - 38:23
worry [1] - 61:7
worth [1] - 162:19
worthy [1] - 101:10
wound [2] - 124:14, 203:18
write [1] - 115:18
written [4] - 18:2, 105:13, 177:2, 212:6
wrote [4] - 25:23, 127:16, 144:3, 144:6

Y

yards [1] - 191:7
year [7] - 152:17, 152:20, 173:18, 174:16, 175:8, 181:3, 187:23
years [29] - 49:14, 51:15, 54:12, 63:5, 103:19, 156:17, 156:19, 156:24, 157:1, 157:4, 157:6, 157:24, 169:10, 170:18, 170:22, 171:1, 171:9, 172:1, 172:15, 172:17, 173:1, 173:2, 174:4, 174:9, 182:22, 184:17, 186:8, 190:24
York [1] - 15:5
yourself [1] - 18:12

Z

Zamarripa [3] - 184:5, 184:22, 184:25
zero [6] - 80:4, 142:16, 199:13, 199:14, 221:14

DECLARATION OF BERNARD GROFMAN

January 11, 2011

I, Bernard Grofman, based on my review of population and racial data from the State of Wisconsin, and my personal knowledge as a specialist on elections and voting rights, declare as follows.

1. My name is Bernard Grofman. I am the Jack W. Peltason Endowed Chair and Professor of Political Science at the University of California, Irvine (UCI). I received my B.S. in Mathematics at the University of Chicago in 1966 and my Ph.D. in Political Science at the University of Chicago in 1972. I came to the University of California, Irvine in 1976 as an Associate Professor, and became Professor of Political Science in 1980. I was selected as the inaugural holder of the Jack W. Peltason Endowed Chair in 2008. Since 2001 I have also been an Adjunct Professor of Economics at UCI. I was elected chair of the Section on Representation and Electoral Systems of the American Political Science Association in 1993-94, and elected president of the Public Choice Society in 2000-01. I became a Fellow of the American Academy of Arts and Sciences in 2001. In 2008 I was appointed Director of the UCI Center for the Study of Democracy, a research center which has more than thirty affiliated faculty from the departments of political science, sociology and economics. I am an internationally recognized expert in the study of redistricting and voting rights. My work, and work by others in books I have edited, has been cited by the U.S. Supreme Court in nearly a dozen cases. I have been a visiting scholar at New York University Law School, in Fall 2006 and Fall 2010, and I will be a Strauss Research Fellow at the NYU Law School for the academic year 2012-13. In 2010 I received an Honorary Doctorate from the University of Copenhagen for my lifetime contributions to political science in the area of electoral systems and representation.

I have co-authored four books (all published by Cambridge University Press), including Grofman, Handley and Niemi, Minority Representation and the Quest for Voting Equality (1992), and edited or co-edited 21 other books, including Handley and Grofman (eds.) Redistricting in Comparative Perspective (Oxford University Press, 2008), and am also the author of over 250 articles and research notes on topics in comparative electoral systems, voting behavior, behavioral social choice, public choice, jury decision making, research methodology, the U.S. congress, and race and politics that have appeared in leading journals in political science, including ten articles in the American Political Science Review, as well as articles in the American Journal of Political Science, the Journal of Politics, the British Journal of Politics, the Canadian Journal of Political Science, the European Journal of Political Research, Comparative Political Studies, Legislative Studies Quarterly, Electoral Studies, Party Politics, Social Choice and Welfare, and Public Choice, along with more than a dozen articles in law journals on issues of voting rights and redistricting.

A copy of my full c.v. is attached as Exhibit A to this declaration.

EXHIBIT
tabbies
E

2. I am being compensated at a rate of $350/hour ($400/hour for deposition and trial time), with a retainer of $10,000.

3. This report provides an analysis of voting rights issues vis-à-vis African-American and Hispanic populations in the drawing of legislative plans in the State of Wisconsin. This report was requested from me by attorneys from the law firm of Reinhart, Boerner Van Deuren s.c.

4. Exhibit B shows the racial and Hispanic demographic data on population and voting age population characteristics of ACT 43 legislative districts, using 2010 census data.

5. Exhibit C shows the racial and Hispanic demographic data on population and voting age population characteristics of the court drawn 2002 legislative districts, using 2010 census data.

6. Exhibit D shows the racial and Hispanic demographic data on population and voting age population characteristics of the court drawn 2002 legislative districts, using 2000 census data.

7. The black population of the State of Wisconsin is very highly geographically concentrated, with nearly 59% (= (109,113 +113,642)/380,660) of the entire African-American population of the state located largely within two heavily African-American Senate districts, S4 and S6 under ACT 43, with a similar proportion found under the 2002 court-drawn plan. In ACT 43, these districts are located entirely within Milwaukee County, primarily in the city of Milwaukee. Exhibit E shows the concentration of the African American population in Milwaukee County. Because the Milwaukee area is the only part of the state with a sufficiently large and concentrated African-American population so as to be able to draw Assembly or State Senate districts that contain an African-American population or voting age population majority, in discussing voting rights issues that affect African-Americans my declaration focuses on S4 and S6 and the assembly districts contained therein.

8. With only 158,872 persons in it according to 2010 census data, the 2002 S4 was underpopulated relative to the 2010 ideal population 172,333; with only 152,758 persons in it according to 2010 census data, the 2002 S6 was also underpopulated relative to the 2010 ideal of 172,333. Each of the three Assembly districts located within old S4 (AD 10 at 51,419, AD 11 at 52,178; and AD 12 at 55,275) and each of the three Assembly districts located within old S6 (AD 16 at 52,510, AD 17 at 51,861, and AD 18 at 48,387) was underpopulated relative to the 2010 ideal of 57,444. Any redrawing of boundaries of these districts needed to add population to each to compensate for the underpopulation. As redrawn in ACT 43 both S4 and S6 satisfy one person, one vote requirements in that they are essentially at ideal population size. One (S4) is 92 persons above the ideal of 172,333; the other (S6) is 41 persons below the ideal of 172,333. The Assembly Districts within each of these Senate districts also easily satisfy one person one vote requirements,

with a deviation from the ideal of 57,444 (above or below) ranging from 14 to 90 persons, with a mean deviation of 44 persons across the six districts.

9. Integrating data about the geographic boundaries and geographic composition of the districts provided in other state documents, for African-American populations, comparison of the data in Exhibits B and C shows:

(a) ACT 43 preserves almost entirely intact in new S4 and new S6 the black population core located in old S4 and old S6. In particular, 98.4% of the previous African-American population found in either old S4 or old S6 (=103,442/106,617 + 102,556/102,761 = 205,998/209,378) is now located in either new S4 or new S6. (The figures reported immediately above are calculated from numbers found in the Report of John Diez, December 14, 2011, which tabulates in summary form data provided by the State of Wisconsin Legislative Technology Service Bureau.) Exhibit F shows an overlay of the new S4 and S6 boundaries over old S4 and S6.

(b) As drawn in ACT 43, both S4 and S6 exhibit a net gain in black population. New S4 has a black population of 109,113, the 2002 S4 had a black population of only 106,617. New S6 has a black population of 113,642, the 2002 S6 had a black population of only 102,761. In the two Senate districts together this is a net gain in black population of 13,377.

10. In Thornburg v. Gingles 478 U.S. 30 (1986) the Supreme Court laid out a three-pronged test for the whether there was vote dilution under Section 2 of the Voting Rights Act of 1965. A necessary element of any successful Section 2 challenge is to demonstrate that all three prongs of this test have been met. The three prongs are

First, the minority group must be able to demonstrate that it is sufficiently large and geographically compact to constitute a majority in a single-member district. ...

Second, the minority group must be able to show that it is politically cohesive. ...

Third, the minority must be able to demonstrate that the white majority votes sufficiently as a bloc to enable it ... usually to defeat the minority's preferred candidate.

(478 U.S. 30 at 50-51, with internal cites omitted)

11. The best evidence on patterns of legally significant racially polarized voting in a jurisdiction is evidence taken from elections of the types under challenge. Here, since the legislative districts at issue are Assembly and Senate districts in the City and County of Milwaukee, the best evidence is from (a) partisan contests for the Assembly and the Senate, and party primaries therein, and (b) voting behavior in the City of Milwaukee and Milwaukee County where potential African American (or Hispanic) Assembly seats could be drawn. It is also commonly accepted by voting rights experts that the very best evidence is from elections which satisfy both (a) and (b). Moreover, while there are circumstances where the absence of minority candidates of a given race or ethnicity can

be probative, the best evidence on whether candidates of choice of a given minority community have a realistic opportunity to be elected normally comes from elections in which there are minority candidates of that race or ethnicity.

12. (a) Under the 2002 court-drawn plan, S4 and S6 have been continuously represented by an African-American Senator since the plan was put into place. Moreover, all candidates in the Democratic primary in those districts have been black, and the winner of the Democratic primary has then gone on to win the general election with 100% of the vote, i.e., in an uncontested election.

(b) Under the 2002 court-drawn plan, AD 10, AD 11, AD 16, AD 17 and AD 18, have been continuously represented by an African-American since the plan was put into place. Moreover, all major candidates in the Democratic primary in those districts have been black and the winner of the Democratic primary has then gone on to win the general election with between 91% and 100% of the vote – most commonly with 100% of the vote.

(c) In contrast, under the 2002 court-drawn plan, in AD 12, which has not been a majority black voting age population district during the decade (having begun at 32.77% black VAP according to the 2000 census, and ending up at 48.99% Black VAP according to the 2010 census), all winners of the Democratic primary have been white (with the last contested Democratic primary in 2004). However, similar to results in the five other assembly districts, all winners of the Democratic primary in AD 12 have gone on to win the general election with vote shares ranging from 67% to 100%, with the last contested general election in 2004.

(Data provided by Counsel as copied from the online version of State of Wisconsin Blue Book, various years.)

(d) The analyses of Dr. Mayer in his Rule 26 Expert Report misstate the degree to which there is legally significant racially polarized voting for African-American candidates in the specific areas of Milwaukee County at issue for possible voting rights violations, primarily the City of Milwaukee. There are sins of both omission and commission, and sins of misinterpretation in his discussion of patterns of racial polarization. Regarding sins of omission: Dr. Mayer fails to focus on the very best evidence. For some inexplicable reason, Dr. Mayer in his Exhibit 9 does not report results for any of the more than two dozen primary or general elections involving black candidates in S4 and S6 and the assembly districts contained therein during the period 2002 to 2010. In all but one of the contests where there were black candidates, a black candidate was successful. Regarding sins of commission: The five elections involving black candidates that are reported on in Exhibit 9 include one county-wide election for Sheriff, a presidential election, the polarization for which was studied for the entire county, and a non-partisan judicial election, also analyzed with county-wide data. The results of these three elections were not studied in the specific part of the county where black population is concentrated, the area which is at dispute vis-à-vis minority vote dilution. Furthermore, only one of the five contests was an Assembly or Senate seat. Regarding sins of

interpretation: In focusing on differences between the white support for the black candidate and the black support for the black candidate, Dr. Mayer neglected to ask "who won?" In three of the five contests, 60%, the black candidate won (Obama for president, Moore for Congress, and Clarke for Sheriff). Even in the two elections which the black candidate lost (the 2008 Court of Appeals contest, and the 2008 election in Assembly District 23) at the level of racially polarized voting he estimates for those elections (with 89.3% and 95.7% black support for the black candidate, respectively; and non-African support of 29.7% and 40.5%, respectively), if these elections had taken place entirely within S4 and S6 with the black population levels in those Senate districts found under ACT 43, the black candidate would have won in those districts in a partisan contest. This evidence does not support Prong Three of the Thornburg test, namely that "the minority must be able to demonstrate that the white majority votes sufficiently as a bloc to enable it ... usually to defeat the minority's preferred candidate."

13. For African-American populations, comparison of the data in Exhibits B, C and D shows:

(a) Based on data from the 2000 census, in the 2002 court drawn plan there were two majority African-American population Senate districts (S4 and S6), each of which also had an African-American majority voting age population (VAP); and there were five majority African-American population Assembly districts in the 2002 plan (AD 10, AD 11, AD 16, AD 17 and AD 18), each of which also had an African-American majority voting age population. In the 2002 court-drawn plan, the mean African-American voting age population in these five districts was not quite 62%. In the 2002 court-drawn plan, the African-American voting age population in the one Assembly District contained in either S4 or S6 which did not have an African-American voting age majority, AD 12, was only 32.77%.

(b) Based on data from the 2010 census, S4, S6, AD 10, AD 11, AD 16, AD 17 and AD 18, as drawn in the 2002 court plan, continued to be black majority voting age population districts throughout the course of the past decade. However, AD 12, while it did become a black majority district in population did not become a black majority district in voting age population over the course of the past decade. According to 2010 census data, the black voting age population in the court drawn AD 12 was still only 48.99%.

(c) Based on data from the 2010 census, in ACT 43 there were again two majority African-American population Senate districts (still S4 and S6), each of which also had an African-American majority voting age population; but the number of African-American Assembly districts in the Milwaukee area was now increased by one. In the 2011 legislative plan, there are six majority African-American population Assembly districts (still AD 10, AD 11, AD 16, AD 17 and AD 18, but now also AD 12), each of which also has an African-American majority voting age population. In ACT 43, using 2000 census data, the mean African-American voting age population in these six districts was not quite 60%. In ACT 43, using 2010 census data, the mean African-American

voting age population in five of these districts that had already been majority African-American VAP in 2002 (AD 10, AD 11, AD 16, AD 17 and AD 18) was 61.36%. In ACT 43, using 2010 census data, the African-American voting age population in the sixth district, AD 12, is 51.48%.

(d) Using current census data, the degree of concentration of African-American voting age population in the Milwaukee area in AD 10, AD 11, AD 16, AD 17 and AD 18 in ACT 43 is essentially identical to that in the 2002 court-drawn plan based on the census data from 2000 that was used for that plan (61.36% versus not quite 62%).

(e) Using current census data, the degree of concentration of African-American population in the Milwaukee area in AD 12 reflects an improvement over the 2002 court-drawn plan based on the census data from 2000 that was used for that plan, because AD 12 as drawn in ACT 43 is now a majority voting age district with a 51.48% black VAP (based on 2010 census data) whereas in the 2002 court-drawn plan it only had a 32.77% black VAP (based on 2000 census data). Moreover, even using 2010 census data, AD 12 as constituted under ACT 43 has a higher black voting age population in 2010 than does AD 12 as it was drawn under the 2002 court plan (51.48% BVAP vs. 48.99% BVAP).

(f) In sum, with respect to minority voting rights, ACT 43 is either identical to or superior to the court-drawn plan of 2002 in the way that it treats black voting age population in the districts drawn in the Milwaukee area – with essentially identical treatment in old and new S4 and S6, nearly identical treatment in old and new AD 10, AD 11, AD 16, AD 17 and AD 18, and superior treatment with respect to AD 12 in ACT 43 as compared to the 2002 court-drawn plan.

14. (a) Because of the similarity in both geography and racial demography (especially in terms of the creation of districts with a black majority voting age population), and the continuation of incumbencies by minority candidates, for all practical purposes, we may treat district S4, S6, AD 10, AD 11, AD 16, AD 17 and AD 18 under ACT 43 as essentially equivalent to the districts of the same number in the 2002 court-drawn plan for purposes of reaching conclusions about the likelihood that these districts will provide a realistic opportunity to elect the minority community's candidates of choice.. Based on the evidence in the numbered sections above it is apparent that, under ACT 43, districts S4, S6, AD 10, AD 11, AD 16, AD 17 and AD 18 clearly provide African-American voters a realistic opportunity to elect candidates of their choice, exactly as they have overwhelmingly done during the previous decade.

(b) Moreover, under ACT 43, AD 12, which has now become for the first time a black voting age majority district, provides a more realistic opportunity for the success of a candidate of choice of the African-American community than did AD 12 as drawn in the 2002 court-drawn plan, when it had only 32.77% African-American voting age population (based on 2000 census data).

Indeed, were AD 12 to have had the same black voting age population in 2004 as it does in 2010 in the new AD 12, it is my view that Dr. Rene Settle-Robinson, a black

candidate, who lost the 2004 Democratic primary to a white opponent (45% to 55%) in an open seat contest, would probably have gained enough votes to win the 2004 Democratic nomination in AD 12, and then gone on to have won the general election, since the primary-winning white Democrat won that general election with 91% of the vote. Dr. Settle-Robinson won the Democratic nomination in AD 23 in 2008, but lost the general election to a Republican. Dr. Mayer's analysis of that 2008 general election (Mayer Rule 26 Expert Report, Tab 9) shows overwhelming (95.7%) African-American support for Dr. Settle-Robinson. However, Dr. Mayer does not analyze voting patterns in the 2004 primary in AD 12.

15. Dr. Mayer's Rule 26 Expert Report (at pp. 24-25) acknowledges that there are six Assembly districts and two Senate districts (all in the Milwaukee area) that have a majority voting age African-American population. He further acknowledges that, even if the African-American population in AD 10, AD 11, AD 16, AD 17 and AD 18 were to be reduced and were to be redistributed so that each of these five districts were at exactly 55% black voting age population, "the numbers are not large enough to create a 7th majority-minority African-American Assembly district," i.e., a district above and beyond the six majority black VAP Assembly Districts that already exist. That conclusion is clearly correct: The proximate African-American population outside of the area bounded by S4 and S6 is not large. The district outside (but somewhat in the vicinity of) that concentration with largest African-American population (AD 24) has an African-American population of only 5,348. Even if were somehow geographically possible to move all of the 12,919 voters that he calculates could be reallocated to that district (or to some other district with an even lower black population) and then move an equally large non-African-American population from that district so as to satisfy one person, one vote, the combined African-American population so created would be less than a majority of the district.

Dr. Mayer's claim is that African-American population in AD 10, AD 11, AD 16, AD 17 and AD 18 is in excess of what is needed to constitute a realistic opportunity to elect candidates of choice, and constitutes a "packing" of African-American voting strength. Accepting that a 7th black majority district cannot be drawn, and that thus the first prong of the Thornburg v. Gingles test cannot be satisfied, Dr. Mayer (at p. 25), merely asserts that "these voters could enhance the influence of African-Americans in other districts." However, even if this were a legally relevant claim, an assertion not supported by any reference to voting rights case law, Dr. Mayer provides no factual evidence to support this claim beyond bare assertion,

16. The Hispanic population of the State of Wisconsin is geographically concentrated. Under ACT 43, nearly a quarter (24.3% =81772/336056) of the entire Hispanic population of the state is located within one heavily Hispanic Senate district, S3, with the bulk of that Hispanic population in AD 8 and AD 9. Exhibit G shows the concentration of the Hispanic population in the Milwaukee area. Because the Milwaukee area is the only part of the state with a sufficiently large and concentrated Hispanic population so as to be able to draw Assembly districts that contain a Hispanic population or voting age

population majority, in discussing voting rights issues that affect Hispanics my report focuses on S3 and the assembly districts contained therein.

17. (a) Based on data from the 2000 census, the Hispanic population was not large enough or geographically concentrated enough to create an Hispanic population majority Senate district in the State. In the 2002 court-drawn plan there was one majority Hispanic population Assembly district (AD 8), with a 62.14% (=33,602/54,074) Hispanic population. This district also had a Hispanic majority voting age population of 58.34%. The assembly district drawn in 2002 with the second largest Hispanic population, AD 9, had an Hispanic population of 28.42% (=15,404/54,204), and a Hispanic voting age population of 22.94%.

(b) Based on data from the 2010 census, although Hispanic population in the State had grown, Hispanic population was still not large enough or geographically concentrated enough to create an Hispanic population majority Senate district. In ACT 43, however, the number of Hispanic majority Assembly districts was increased from one to two, and both of these districts (AD 8 and AD 9), were not only majority Hispanic in population but also majority Hispanic in voting age. Under ACT 43, Assembly district 8 has a Hispanic population of 65.94% and a Hispanic majority voting age population (VAP) of 60.52%, while AD 9 has a Hispanic population of 60.54 % and a Hispanic voting age population of 54.03%.

(c) ACT 43 increased both the Hispanic population and the Hispanic voting age population share in AD 8 (based on the 2010 census) from that found in AD 8 under the 2002 court –drawn plan (based on the 2000 census) - - 65.94% vs. 62.14% for population, and 60.52% vs. 58.34% for voting age population.

(d) ACT 43 dramatically increased both the Hispanic population and the Hispanic voting age population share in AD 9 (based on the 2010 census) from that found in AD 9 under the 2002 court –drawn plan (based on the 2000 census) - (60.54 % vs. 28.42% for population, and 54.03% vs. 22.94% for voting age population), while still preserving (and even slightly increasing) the Hispanic population and voting age population proportions in AD 8.

18. Under the 2002 court-drawn plan, AD 8 has been continuously represented by a Hispanic Assembly member since the plan was put into place. Moreover, all candidates in the Democratic primary in that district have been Hispanic, and the winner of the Democratic primary has then gone on to win the general election with 100% of the vote, i.e., in an uncontested election. The last contested election in the district was 1998 (under the 1992 plan). In that year the Hispanic candidate won the general election with 76% of the vote. In contrast, under the 2002 court-drawn plan, AD 9 has been continuously represented by the same non-Hispanic Assembly member since the plan was put into place.

19. (a) Because of the similarity in both geography and Hispanic demography, and the continuation of incumbency status by the Hispanic representative in AD 8, for all

practical purposes, we may treat districts S3 and AD 8 under ACT 43 as essentially equivalent to the districts of the same number in the 2002 court-drawn plan for purposes of reaching conclusions about the likelihood that these districts will provide a realistic opportunity to elect the minority community's candidates of choice. Based on the evidence in the numbered sections above it is apparent that, under ACT 43, district AD 8 clearly provides the Hispanic community a realistic opportunity to elect a candidate of choice, exactly as it has been able to do during the previous decade – by having an Hispanic candidate of choice win the Democratic primary and then go on to win the general election. Contra the assertion in Dr. Mayer's Rule 26 Expert Report (at p. 22), there is no need whatsoever to increase the Hispanic population or voting age population in AD 8, since the Hispanic community already has a realistic opportunity to elect a candidate of its choice in AD 8. Indeed the Hispanic community has repeatedly elected just such a candidate of choice in a district with essentially the same population characteristics as the new AD 8. Moreover, it is better from the standpoint of Hispanic representation to forego adding unnecessary Hispanic population to AD 8 and to leave it instead in AD 9. In increasing the Hispanic population in AD 8, Dr. Meyer's proposed plan decreases the Hispanic population in AD 9, almost certainly to the point where it no longer contains an Hispanic voting age population majority.

(b) Under ACT 43, AD 9, which has now become for the first time a Hispanic voting age majority district, provides a far more realistic opportunity for the success of a candidate of choice of the Hispanic community than did AD 9 as drawn in the 2002 court plan. Indeed, as configured in 2002, AD 9, with an initial Hispanic population percentage of only 28.42% (ca. 2000), has never had an Hispanic candidate in the general election or in the Democratic primary. There is strong evidence for demographic trends continuing to increase the size of the Hispanic voting age population in AD 9 (see Morrison Declaration). That fact, combined with the fact that the non-Hispanic white population percentage in AD 9 as configured under ACT 43 is only 25.93% (ca. 2010) and the non-Hispanic white voting age population percentage in AD 9 as configured under ACT 43 is only 33.26% (ca. 2010) leads me to believe that it is very plausible to expect that district can elect an Hispanic candidate of choice sometime over the course of the decade once a viable Hispanic candidate succeeds in winning the Democratic primary. That nominee would then likely attract some support from non-Hispanic Democrats and win the general election. This has been the most common pattern of success for minority candidates in Milwaukee.

(c) The analyses of Dr. Mayer in his Rule 26 Expert Report misstate the degree to which there is legally significant racially polarized voting, i.e., he misstates whether or not observed levels of polarization make it highly unlikely that Hispanic candidates could be elected in the most heavily Hispanic areas in the specific areas of Milwaukee County at issue for possible voting rights violations in the City of Milwaukee. There are sins of both omission and commission, and sins of misinterpretation in his discussion of patterns of racial polarization. Regarding sins of omission: Dr. Mayer fails to focus on the very best evidence. Dr. Mayer in his Exhibit 7 does not report results for any election involving a Hispanic candidate in AD 8. In all of these contests Hispanic candidates were successful. Regarding sins of commission: the five elections involving Hispanic candidates that are

reported on in Exhibit 7 include four elections for which county-wide data are analyzed, including two state-wide elections for the same low visibility office (a primary and a general), and two non-partisan judicial elections for the same office (a primary and a general). These data are of limited probative value for outcomes in partisan contests in the heavily Hispanic areas. Only one Assembly or Senate election was analyzed, a 2008 election, and that was an Assembly district with a minuscule Hispanic population (S 8, with an Hispanic population of 5,126 ca. 2010). Regarding sins of interpretation: in focusing on differences between the non-Hispanic support for the Hispanic candidate and the Hispanic support for the Hispanic candidate, Dr. Mayer neglected to ask "who won?" In three of the five contests, 60%, the Hispanic candidate won (Colon, to enter the runoff; Colon, to win the general, and Fernandez to enter the runoff). Moreover, based on Dr. Mayer's estimates of levels of racial polarization in those contests where the Hispanic candidate lost (the 2009 State Superintendent of Public Instruction contest, where he estimates that 95.7% of the Latino vote went to the Hispanic candidate and 40.5% of the non-Latino vote went to the Hispanic candidate; and the 2004 State Senate contest, where he estimates that 89.2% of the Latino vote went to the Hispanic candidate and 49.6% of the non-Latino vote went to the Hispanic candidate) in both contests the Hispanic candidate would have received more votes than the non-Hispanic opponent if the election had taken place entirely within AD 8 or AD 9 as those districts are configured under ACT 43, since the Hispanic population share in those Assembly districts is considerably higher than in Milwaukee County as a whole and dramatically higher than in State Senate district 8. This evidence does not support Prong Three of the Thornburg test with respect to dilution of Hispanic voting rights, namely that "the minority must be able to demonstrate that the white majority votes sufficiently as a bloc to enable it ... usually to defeat the minority's preferred candidate."

20. The ACT 43 districts raise no issues with respect to the Shaw v. Reno 509 U.S. 630 (1993) line of jurisprudence. The African-American population is highly geographically concentrated within a single county, primarily within a single city, and the Hispanic community of Milwaukee is also highly concentrated in that city, and the plans simply respect the existing population concentrations.

21. Based on the facts laid out earlier, it is my view that the ACT 43 districts do not violate Section 2 of the Voting Rights Act or the 14th Amendment

First, as noted earlier, ACT 43 is either identical to or superior to the court-drawn plan of 2002 in the way that it treats black voting age population in the Milwaukee area (essentially identical treatment in S4 and S6, nearly identical treatment in AD 10, AD 11, AD 16, AD 17 and AD 18, and superior treatment in ACT 43 in AD 12). Similarly, as also noted earlier, and reflecting changing demographic realities, ACT 43 is either identical to or superior to the court-drawn plan of 2002 in the way that it treats Hispanic voting age population in the Milwaukee area in AD 8 and AD 9, essentially identical in AD 8 and superior in AD 9. In sum, ACT 43 creates one more black voting age population majority district than does the 2002 court-drawn plan, and creates one more Hispanic voting age population majority district than does the 2002 court-drawn plan, while preserving all previous minority voting age population districts.

Second, courts have repeatedly held that neither Section 2 of the Voting Rights Act nor the 14th Amendment require jurisdictions to maximize minority representation. Rather they require that jurisdictions neither minimize nor cancel out the voting strength of protected groups, but instead fairly reflect that strength. In general, there will be many different plans that fairly reflect minority voting strength.

Third, by explicitly stating the fact that a 7th African-American majority district cannot be drawn, Dr. Meyer has also acknowledged that the first prong of the Thornburg three-pronged test that plaintiffs need to show as a necessary part of a Section 2 claim for African-American voting rights, namely that the African-American minority group is "sufficiently large and geographically compact to constitute a majority in a single-member district " cannot be met with respect to the African-American community in terms of adding an additional African-American majority district to the six that presently exist.

Fourth, there is no credible evidence presented that would support the claim required for the third prong of the Thornburg test, that minority candidates of choice "usually" are defeated. There is only one part of the state where it is possible to draw majority minority districts for either African-Americans or Hispanics, namely that part of Milwaukee that includes present districts S4 and S6, and the Assembly districts contained therein and that part of Milwaukee that includes S3 and the Assembly districts contained therein. In the Senate or Assembly districts in these areas which have been majority black or majority Hispanic in voting age population under the 2002 court-drawn plan (S4, S6, AD 10, 11, 16, 17, 18, for African-Americans, and AD 8, for Hispanics), candidates of choice of the given minority community have always won throughout the past decade, and that pattern of success could be expected to continue in the comparable districts created under ACT 43.

Fifth, given the continued success of a Hispanic candidate of choice in AD 8 as that district was configured in the court drawn plan of 2002, and the fact that the directly comparable district, AD 8 under ACT 43, has a slightly higher Hispanic VAP than what is found in the court-drawn plan of 2002, Dr. Mayer's claim that Hispanic voting strength has been diluted by the failure to add yet more Hispanic population to AD 8 completely lacks credibility. Moreover, were one to add unnecessary Hispanic population to AD 8, doing so would come at the expense of reducing Hispanic population in AD 9, decreasing the likelihood of Hispanic success in AD 9.

In sum, ACT 43 neither packs nor fragments minority populations, and it provides the Hispanic and African-American communities an equal opportunity to elect candidates of choice with the non-Hispanic white majority in the state.

Bernard Grofman
January 11, 2012

VITA

BERNARD N. GROFMAN, Professor

EDUCATION

B.S.	University of Chicago, Mathematics (1966)
M.A.	University of Chicago, Political Science (1968)
Ph.D.	University of Chicago, Political Science (1972)

HONORARY DEGREES

2010	Honorary Doctorate in Political Science (Doctor scientarium politicarum honoris causa), University of Copenhagen

CURRENT ACADEMIC POSITIONS HELD

2008-	Jack W. Peltason (Bren Foundation) Endowed Chair, University of California, Irvine
1980-	Professor of Political Science and Social Psychology, University of California, Irvine.
2001-	Adjunct Professor of Economics, University of California, Irvine.
2008-	Director, Center for the Study of Democracy, UCI Interdisciplinary Organized Research Unit

FORMER ACADEMIC POSITIONS

1970-71	Instructor, Political Science, SUNY at Stony Brook.
1971-76	Assistant Professor, Political Science, SUNY at Stony Brook
1976-80	Associate Professor of Political Science and Social Psychology, University of California, Irvine

PROFESSIONAL AFFILIATIONS

American Political Science Association
Public Choice Society
Law and Society Association
American Institute of Parliamentarians

VISITING POSITIONS AND FELLOWSHIPS

1973	Visiting Lecturer (Gastdozent), Department of Political Science (Lehrstuhl für Politische Wissenschaft), University of Mannheim (Summer Semester).
1975	Adjunct Assistant Professor, Applied Mathematics, SUNY at Stony Brook

EXHIBIT
A

(Spring Semester).

1975-76 Visiting Assistant Professor, School of Social Sciences, University of California, Irvine (Winter and Spring Quarters).

1984 Guest Scholar (Sabbatical), Governmental Studies Program, Brookings Institution (Winter Quarter).

1985 College Visiting Professor, Department of Political Science, University of Washington, Seattle (Spring Quarter).

1985-86 Fellow, Center for Advanced Study in the Behavioral Sciences, Stanford

1989 Visiting Professor, Department of Political Science, University of Michigan (Fall Semester).

1990 Scholar-in-Residence, Institute for Legal Studies, Kansai University, Osaka, Japan (June-July)

2001 Fellow, University Institute of Advanced Study and Scholar-in-Residence, University of Bologna, Italy (May-June)

2002 Scholar-in-Residence, Berlin Science Center (Wissenschaft Zentrum) Germany (July)

2003 Gaspar de Portola Scholar-in-Residence, Department of Economics, Pompeu Fabra University, Barcelona (May-June)

2006 Scholar-in-Residence, New York University School of Law (Sept.-Dec.)

2007 Scholar-in-Residence, Institute for Research on Government and Economic Institutions (IRGEI), University of Paris II (Pantheon), France (April-June)

2008 Scholar-in-Residence, Institute for Research on Government and Economic Institutions (IRGEI), University of Paris II (Pantheon), France (April-May)

2008 Scholar-in Residence, Nuffield College, Oxford University (June)

2009 Scholar-in-Residence, Institute for Research on Government and Economic Institutions (IRGEI), University of Paris II (Pantheon), France (June-July)

2010 Scholar-in-Residence, New York University School of Law (Sept.-Dec.)

BOOKS AND EDITED BOOKS

Books (published)

(P1) Grofman, Bernard, Lisa Handley and Richard Niemi. Minority Representation and the Quest for Voting Equality. New York: Cambridge University Press, 1992.

(P2) Merrill, Samuel III and Bernard Grofman. A Unified Theory of Voting: Directional and Proximity Spatial Models. New York: Cambridge University Press, 1999.

(P3) Adams, James, Samuel Merrill and Bernard Grofman. 2005. A Unified Theory of Party Competition: A Cross-National Analysis Integrating Spatial and Behavioral Factors. New York: Cambridge University Press.

(P4) Regenwetter, Michael, Bernard Grofman, A. A. J. Marley and Ilia Tsetlin. 2006. Behavioral Social Choice: Probabilistic Models, Statistical Inference, and Applications. New York: Cambridge University Press.

Edited Books (published)

(E1) Grofman, Bernard N., Arend Lijphart, Robert McKay and Howard Scarrow (Eds.), Representation and Redistricting Issues. Lexington, MA: Lexington Books, 1982.

(E2) Lijphart, Arend and Bernard Grofman (Eds.), Choosing an Electoral System. New York: Praeger, 1984. (2001 co-recipient of the George Hallett Prize of the Representation and Electoral Systems Section of the American Political Science Association for books with a lasting contribution to the study of electoral systems.)

(E3) Grofman, Bernard N. and Arend Lijphart (Eds.), Electoral Laws and Their Political Consequences. New York: Agathon Press, 1986. (2001 co-recipient of the George Hallett Prize of the Representation and Electoral Systems Section of the American Political Science Association for books with a lasting contribution to the study of electoral systems.)

(E4) Grofman, Bernard N. and Guillermo Owen (Eds.), Information Pooling and Group Decision Making. Greenwich, CT: JAI Press, 1986.

(E5) Grofman, Bernard N. and Donald Wittman (Eds.), The "Federalist Papers" and the New Institutionalism. New York: Agathon Press, 1989.

(E6) Grofman, Bernard N. (Ed.), Political Gerrymandering and the Courts. New York: Agathon Press, 1990.

(E7) Grofman, Bernard and Chandler Davidson (Eds.), Controversies in Minority Voting: The Voting Rights Act in Perspective. Washington D.C.: The Brookings Institution, 1992. (Designated by the Gustavus Myers Center for the Study of Human Rights in North America as one of the outstanding books published in 1992 on intolerance.)

Edited Books (published) (cont.)

(E8) Grofman, Bernard N. (Ed.), Information, Participation and Choice: An 'Economic Theory of Democracy' in Perspective. Ann Arbor, Michigan: University of Michigan Press, 1993.

(E9) Davidson, Chandler and Bernard Grofman (Eds.), Quiet Revolution in the South: The Impact of the Voting Rights Act, 1965-1990. Princeton, NJ: Princeton University Press, 1994. (Richard Fenno Prize of the Legislative Studies Section of the American Political Science Association for the best book published in 1994 in the field of legislative studies.)

(E10) Grofman, Bernard (Ed.) Legislative Term Limits: Public Choice Perspectives. Boston, MA: Kluwer, 1996.

(E11) Grofman, Bernard (Ed.) Race and Redistricting in the 1990s. New York: Agathon Press, 1998.

(E12) Grofman, Bernard, Sung-Chull Lee, Edwin Winckler, and Brian Woodall (Eds.) Elections in Japan, Korea and Taiwan under the Single Non-Transferable Vote: The Comparative Study of an Embedded Institution. Ann Arbor, MI: University of Michigan Press, 1999.

(E13) Grofman, Bernard (Ed.) Legacies of the 1964 Civil Rights Act. Charlottesville: University Press of Virginia, 2000.

(E14) Bowler, Shaun and Bernard Grofman (Eds.) Elections in Australia, Ireland and Malta under the Single Transferable Vote. Ann Arbor: University of Michigan Press, 2000.

(E15) Grofman, Bernard (Ed.). Political Science as Puzzle Solving. Ann Arbor, MI: University of Michigan Press, 2001.

(E16) Grofman, Bernard and Arend Lijphart (Eds.) The Evolution of Electoral and Party Systems in the Nordic Countries. New York: Agathon Press, 2002.

(E17) Handley, Lisa and Bernard Grofman (Eds). Redistricting in Comparative Perspective. Oxford: Oxford University Press, 2008.

(E18) Grofman, Bernard, Shaun Bowler, and Andre Blais (Eds.) Duverger's Law in Canada, India, the U.S. and the U.K. Berlin: Springer Verlag, 2008.

(E19) Sigelman, Lee, Kenneth Newton, Kenneth J. Meier, and Bernard Grofman (Eds.) The Wit and Humor of Political Science. American Political Science Association and European Consortium for Political Research, 2010

(E20) Giannetti, Daniela and Bernard Grofman (Eds.) A Natural Experiment on Electoral Law Reform: Evaluating the Long Run Consequences of 1990s Electoral Reform in Italy and Japan. Springer, 2011.

Edited Books (published) (cont.)

(E21) Dolez, Bernard, Bernard Grofman and Annie Laurent (Eds.) *In Situ* and Laboratory Experiments on Electoral Law Reform: French Presidential Elections. Springer, 2011.

MAJOR RESEARCH GRANTS

2011-12 Monitoring the Nature and Impact of Public Input into the Legislative and Congressional Redistricting Process (Sloan Foundation, $119.756)

2007-09 Political Competition. Social Science and Humanities Research Council of Canada, (SSHRCC #410-2007-2153, $87,290: Associate Investigator: co-PIs, Stanley Winer and J. Stephen Ferris).

1998-01 Collaborative Research on Probabilistic Models of Social Choice. National Science Foundation Program in Methodology Measurement and Statistics, (NSF# SBR-97-30578, $213,000 with Anthony Marley, Co-PI)

1994-95 Electoral Laws, Electoral Lists and Campaigning in the First Non-Racial South African General Election, National Science Foundation, National Science Foundation (NSF# SBR-93- 21864, $39,512, with Arend Lijphart).

1991-93 The Impact of Redistricting on the Representation of Racial Racial and Ethnic Minorities, The Ford Foundation (#446740-47007, $166,000).

1988-92 Collaborative Research on the Voting Rights Act: Implementation, Effects, and Implications for Law and Society. National Science Foundation Law and Social Sciences Program (NSF SES #88-09392, $231,000, with Chandler Davidson); Supplementary Grant for Collaborative Research on the Voting Rights Act: The Effects of Changing Electoral Systems on the Election of Women. National Science Foundation Law and Social Sciences Program (NSF SES 88-09392, $8,500, with Chandler Davidson and Susan Welch).

1987-89 Ethnic Voting Patterns in Metropolitan Toronto (Social Sciences and Humanities Research Council of Canada, $14,480, with Janet Landa and Michael Copeland).

1985-87 The Dynamics of Spatial Voting Games and Games on Graphs, National Science Foundation, Decision and Management Sciences Program (NSF SES #85-06376, $99,300, with Guillermo Owen).

1985-86 The Impact of Laws Relating to Elections and Representation, National Science Foundation, Political Science Program (NSF SES #85-15468, $23,200).

1983-84 Analysis of the Multnomah Jury Archive, National Science Foundation, Law and Social Sciences Program (NSF SES #82-18588, $35,000).

1981-83 Reapportionment and Representation. National Science Foundation, Political Science Program (NSF #SES 81-07554, $49,970 with Guillermo Owen)

1980-82 Applications of Game Theory to the Study of Political Institutions. National Science Foundation, Political Science Program (NSF #SES 80-07915, $31,300 with Guillermo Owen)

1978-79 Modeling Jury Decision Processes: The Multnomah Jury Archive, National Science Foundation, Law and Social Sciences Program (NSF SOC 77-24702, $73,800). $8,000 funding provided by the American Bar Association).

1978-79 Electoral System: What Difference Does it Make? National Science Foundation, Political Science Program (NSF SOC 77-24474, $35,800, with Howard Scarrow).

1976-77 Modeling Jury Decision Processes, National Science Foundation, Law and Social Sciences Program (NSF SOC 75-14091, $68,200).

PROFESSIONAL HONORS AND AWARDS

2001- Fellow, American Academy of Arts and Sciences
2000-02 President, Public Choice Society
1991-93 Chair, Section on Representation and Electoral Systems, American Political Science Association.
1982-85 Co-Chair, Conference Group on Representation and Electoral Systems, American Political Science Association.

UNIVERSITY OF CALIFORNIA RESEARCH AND TEACHING HONORS AND AWARDS

2005 University of California, Irvine Academic Senate Distinguished Faculty Award for Research
2001 Lauds and Laurels Award for Faculty Achievement, UCI Alumni Association.
1997 The campus-wide winner, Award for Teaching Innovation and Excellence: UCI Dean for Undergraduate Education.
1996 The School of Social Sciences winner, Award for Teaching Innovation and Excellence: UCI Dean for Undergraduate Education.
1995 Lauds and Laurels Award for Professional Achievement, UCI Alumni Association.

PAPER AWARDS

2003 Co-recipient (with Timothy Brazill) of the Duncan Black Prize of the Public Choice Society for best paper published in Public Choice in 2002, ("Identifying the Median Justice on the Supreme Court through Multi-Dimensional Scaling: Analysis of the 'Natural Courts" 1953-1991")
1985 Co-recipient (with Philip Straffin) of the Carl B. Allendoerfer Award, Mathematical Association of America, for exposition in mathematical writing for undergraduates.
1979 Pi Sigma Alpha Award, Best Paper, Annual Meeting of the Midwest Political Science Association.

LISTINGS

Who's Who in the World, Providence, NJ: Marquis, yearly editions beginning in 1998.

American Political Scientists: A Dictionary. Glenn H. Utter and Charles Lockhart (Eds.) Westport, CT: Greenwood Press, 2002, pp. 138-140.

Directory of American Scholars, 10th ed. Gale Group, 2002.

Rowley, Charles K. and Friedrich Schneider. *Encyclopedia of Public Choice*. Vol. 1. 2004. Kluwer Academic Publishers, Dordrecht/Boston/London. Grofman Biography, pp. 355-356

PROFESSIONAL ARTICLES (in print)

(1) Grofman, Bernard N., and Edward Muller. 1973. The strange case of relative gratification and potential for political violence: The V-curve. American Political Science Review, 67:514-539.

(2) Grofman, Bernard N., and Gerald Hyman. 1973. Probability and logic in belief systems. Theory and Decision, 4:179-195.

(3) Grofman, Bernard N. 1974. Helping behavior and group size, some exploratory stochastic models. Behavioral Science, 19:219-224.

(4) Grofman, Bernard N., and Gerald Hyman. 1974. The logical foundations of ideology. Behavioral Science, 19:225-237.

(5) Grofman, Bernard N. 1975. The prisoner's dilemma game: Paradox reconsidered. In Gordon Tullock (Ed.), Frontiers of Economics, 1:101-119.

(6) Mackelprang, A. J., Bernard N. Grofman, and N. Keith Thomas. Electoral change and stability: Some new perspectives. 1975. American Politics Quarterly, 3(3):315-339.

(7) Grofman, Bernard N. 1975. A review of macro-election systems. In Rudolph Wildenmann (Ed.), German Political Yearbook (Sozialwissenschaftliches Jahrbuch fur Politik), Vol. 4, Munich Germany: Gunter Olzog Verlag, 303-352.

(8) Grofman, Bernard N., and Jonathan Pool. 1975. Bayesian models for iterated prisoner's dilemma games. General Systems, 20:185-194.

(9) Grofman, Bernard N. 1976. Not necessarily twelve and not necessarily unanimous: Evaluating the impact of Williams v. Florida and Johnson v. Louisiana. In Gordon Bermant, Charlan Nemeth and Neil Vidmar (Eds.), Psychology and the Law: Research Frontiers. Lexington, MA: D.C. Heath, 149-168.

(10) Grofman, Bernard N. 1977. Jury decision-making models. In Stuart Nagel (Ed.), Modeling the Criminal Justice System, Sage Criminal Justice Systems Annuals, Vol. 7, Beverly Hills: Sage Publications, 191-203.

(11) Grofman, Bernard N., and Jonathan Pool. 1977. How to make cooperation the optimizing strategy in a two-person game. Journal of Mathematical Sociology, 5(2):173-186.

(12) Grofman, Bernard N. 1978. Judgmental competence of individuals and groups in a dichotomous choice situation. Journal of Mathematical Sociology, 6(1):47-60.

(13) Grofman, Bernard N., and Howard Scarrow. 1979. Iannucci and its aftermath: The application of the Banzhaf Criterion to weighted voting in the State of New York. In Steven Brams, Andrew Schotter and Gerhard Schwodiauer (Eds.), Applied Game Theory. Vienna: Physica-Verlag, 168-183.

PROFESSIONAL ARTICLES (in print) (cont.)

(14) Grofman, Bernard N. 1980. A preliminary model of jury decision making. In Gordon Tullock (Ed.), Frontiers of Economics, Vol. 3, 98-110.

(15) Grofman, Bernard N. 1980. Jury decision-making models and the Supreme Court: The jury cases from Williams v. Florida to Ballew v. Georgia. Policy Studies Journal, 8(5):749-772.

(16) Grofman, Bernard N. 1980. The slippery slope: Jury size and jury verdict requirements--legal and social science approaches. Law and Politics Quarterly, 2(3):285-304.

(17) Grofman, Bernard N., and Howard Scarrow. 1980. Mathematics, social science and the law. In Michael J. Saks and Charles H. Baron (Eds.), The Use/Nonuse/Misuse of Applied Social Research in the Courts. Cambridge, MA: Abt Associates, 117-127.

(18) Grofman, Bernard N. 1981. Mathematical models of juror and jury decision making: the state of the art. In Bruce D. Sales (Ed.), Perspectives in Law and Psychology, Volume II: The Trial Processes. NY: Plenum, 305-351.

(19) Grofman, Bernard N. 1981. The theory of committees and elections: The legacy of Duncan Black. In Gordon Tullock (Ed.), Toward a Science of Politics: Essays in Honor of Duncan Black. Blacksburg, VA: Public Choice Center, Virginia Polytechnic Institute and State University, 11-57.

(20) Weisberg, Herbert and Bernard N. Grofman. 1981. Candidate evaluations and turnout. American Politics Quarterly, 9(2):197-219.

(21) Grofman, Bernard N. and Howard Scarrow. 1981. Weighted voting in New York. Legislative Studies Quarterly, 6(2):287-304.

(22) Grofman, Bernard N. 1981. Alternatives to single-member plurality districts: Legal and empirical issues. Policy Studies Journal, 9(3): 875-898. (Reprinted in Bernard Grofman, Arend Lijphart, Robert McKay and Howard Scarrow (Eds.), Representation and Redistricting Issues. Lexington, MA: Lexington Books, 1982, 107-128.

(23) Taagepera, Rein and Bernard N. Grofman. 1981. Effective size and number of components. Sociological Methods and Research, 10:63-81.

(24) Landa, Janet, and Bernard N. Grofman. 1981. Games of breach and the role of contract law in protecting the expectation interest. Research in Law and Economics Annual, 3:67-90.

PROFESSIONAL ARTICLES (in print) (cont.)

(25) Grofman, Bernard N. 1982. A dynamic model of protocoalition formation in ideological n-space. Behavioral Science, 27:77-90.

(26) Grofman, Bernard N., Scott L. Feld, and Guillermo Owen. 1982. Evaluating the competence of experts, pooling individual judgements into a collective choice, and delegating decision responsibility to subgroups. In Felix Geyer and Hans van der Zouwen (Eds.), Dependence and Inequality. NY: Pergamon Press, 221-238.

(27) Grofman, Bernard N. 1982. Reformers, politicians and the courts: A preliminary look at U.S. redistricting in the 1980s. Political Geography Quarterly, 1(4):303-316.

(28) Grofman, Bernard N. and Howard Scarrow. 1982. Current issues in reapportionment. Law and Policy Quarterly, 4(4): 435-474.

(29) Grofman, Bernard N. and Guillermo Owen. 1982. A game theoretic approach to measuring degree of centrality in social networks. Social Networks, 4:213-224.

(30) Grofman, Bernard N., Guillermo Owen and Scott L. Feld. 1983. Thirteen theorems in search of the truth. Theory and Decision, 15:261-278.

(31) Grofman, Bernard N. 1983. Measures of bias and proportionality in seats-votes relationships. Political Methodology, 9:295-327.

(32) Grofman, Bernard N. and Janet Landa. 1983. The development of trading networks among spatially separated traders as a process of proto-coalition formation: the Kula trade. Social Networks, 5:347-365.

(33) Owen, Guillermo and Bernard N. Grofman. 1984. Coalitions and power in political situations. In Manfred Holler (Ed.), Coalitions and Collective Action. Wuerzburg: Physica-Verlag, 137-143.

(34) Grofman, Bernard N. 1984. The general irrelevance of the zero sum assumption in the legislative context. In Manfred Holler (Ed.), Coalitions and Collective Action. Wuerzburg: Physica-Verlag, 100-112.

(35) Glazer, Amihai, Deborah Glazer, and Bernard N. Grofman. 1984. Cumulative voting in corporate elections: Introducing strategy into the equations. South Carolina Law Review, 35(2):295-309.

(36) Feld, Scott L. and Bernard N. Grofman. 1984. The accuracy of group majority decisions in groups with added members. Public Choice, 42: 273-285.

PROFESSIONAL ARTICLES (in print) (cont.)

(37) Owen, Guillermo and Bernard N. Grofman. 1984. To vote or not to vote: The paradox of nonvoting. Public Choice, 42:311-325.

(38) Shapley, Lloyd S. and Bernard N. Grofman. 1984. Optimizing group judgmental accuracy in the presence of interdependencies. Public Choice, 43(3):329-343.

(39) Grofman, Bernard N., Michael Migalski, and Nicholas Noviello. 1985. The 'totality of circumstances' test in Section 2 of the 1982 extension of the Voting Rights Act: A social science perspective. Law and Policy, 7(2):209-223.

(40) Grofman, Bernard N. Criteria for districting: A social science perspective. 1985. UCLA Law Review, 33(1):77-184.

(41) Grofman, Bernard and Carole Uhlaner. 1985. Metapreferences and reasons for stability in social choice: Thoughts on broadening and clarifying the debate. Theory and Decision, 19:31-50.

(42) Taagepera, Rein and Bernard Grofman. 1985. Rethinking Duverger's Law: Predicting the effective number of parties in plurality and PR systems--parties minus issues equals one. European Journal of Political Research, 13:341-352. (Reprinted in J. Paul Johnston and Harvey E. Pasis (Eds.). Representation and Electoral Systems: Canadian Perspectives. Englewood City, N.J.: Prentice Hall, 1988.)

(43) Niemi, Richard, Jeffrey Hill and Bernard Grofman. 1985. The impact of multimember districts on party representation in U.S. state legislatures. Legislative Studies Quarterly, 10(4):441-455.

(44) Uhlaner, Carole and Bernard Grofman. 1986. The race may be close but my horse is going to win: Wish fulfillment in the 1980 Presidential election. Political Behavior, 8(2):101-129.

(45) Feld, Scott L. and Bernard Grofman. 1986. On the possibility of faithfully representative committees. American Political Science Review, 80(3):863-879.

(46) Brace, Kimball, Bernard Grofman and Lisa Handley. 1987. Does redistricting aimed to help blacks necessarily help Republicans? Journal of Politics, 49:143-156. (Reprinted in Ann M. Bowman and R.C. Kearney, State and Local Government. Boston, MA: Houghton Miflin, 1990.)

(47) Grofman, Bernard, Guillermo Owen, Nicholas Noviello and Amihai Glazer. 1987. Stability and centrality of legislative choice in the spatial context. American Political Science Review, 81(2):539-553.

PROFESSIONAL ARTICLES (in print) (cont.)

(48) Grofman, Bernard N. Models of voting. 1987. In Samuel Long (Ed.), Micropolitics Annual, Greenwich, CT: JAI Press, 31-61.

(49) Glazer, Amihai, Bernard Grofman and Marc Robbins. 1987. Partisan and incumbency effects of 1970s congressional redistricting. American Journal of Political Science, 30(3):680-701. (Reprinted in Susan A. McManus (Ed.), Reapportionment and Representation in Florida, Lake Geneva, Wisconsin: Paladin House, 1991.)

(50) Feld, Scott L., Bernard Grofman, Richard Hartley, Mark O. Kilgour and Nicholas Miller. 1987. The uncovered set in spatial voting games. Theory and Decision, 23:129-156.

(51) Feld, Scott L. and Bernard Grofman. 1987. Necessary and sufficient conditions for a majority winner in n-dimensional spatial voting games: An intuitive geometric approach. American Journal of Political Science, 32(4):709-728.

(52) Owen, Guillermo and Bernard N. Grofman. 1988. Optimal partisan gerrymandering. Political Geography Quarterly, 7(1):5-22.

(53) Schofield, Norman, Bernard Grofman and Scott L. Feld. 1988. The core and the stability of group choice in spatial voting games. American Political Science Review, 82)(1):195-211.

(54) Grofman, Bernard and Scott L. Feld. 1988. Rousseau's general will: A Condorcetian perspective. American Political Science Review, 82(2):567-576. (Reprinted in J. Paul Johnston and Harvey Pasis (Eds.), Representation and Electoral Systems: Canadian Perspectives, NJ: Prentice Hall of Canada, 1990. Translated and reprinted in abridged form as La volonté generale de Rousseau: perspective Condorcéene. In P. Crepel and C. Gilain (Eds.), des Actes du Colloque International Condorcet. Paris: Editions Minerve, 1989.) (Reprinted in Literature Criticism, Vol. 104, Warren, MI: Gale Group; also reprinted in John T. Scott (ed) Jean Jacques Rousseau: Critical Assessments of Leading Political Philosophers, Routledge, 2006).

(55) Brace, Kimball, Bernard Grofman, Lisa Handley, and Richard Niemi. 1988. Minority voting equality: The 65 percent rule in theory and practice. Law and Policy, 10(1):43-62.

(56) Feld, Scott L. and Bernard Grofman. 1988. Ideological consistency as a collective phenomenon. American Political Science Review, 82(3):64-75.

(57) Grofman, Bernard and Michael Migalski. 1988. Estimating the extent of racially polarized voting in multicandidate elections. Sociological Methods and Research, 16(4):427-454.

(58) Grofman, Bernard, Scott L. Feld and Guillermo Owen. 1989. Finagle's law and the Finagle point, a new solution concept for two-candidate competition in spatial voting games. American Journal of Political Science, 33(2):348-375.

PROFESSIONAL ARTICLES (in print) (cont.)

(59) Grofman, Bernard and Lisa Handley. 1989. Black representation: Making sense of electoral geography at different levels of government. Legislative Studies Quarterly, 14(2):265-279.

(60) Feld, Scott L., Bernard Grofman and Nicholas Miller. 1989. Limits on agenda control in spatial voting games. Mathematical and Computer Modelling, 12(4/5):405-416. (Reprinted in Paul E. Johnson (Ed.), Mathematical Modelling in Political Science. Oxford: Pergamon Press, 1989.)

(61) Erfle, Stephen, Henry McMillan and Bernard Grofman. 1989. Testing the regulatory threat hypothesis: Media coverage of the energy crisis and petroleum pricing in the late 1970s. American Politics Quarterly, 17(2):132-152.

(62) Miller, Nicholas, Bernard Grofman and Scott L. Feld. 1989. The geometry of majority rule. Journal of Theoretical Politics, 1(4):379-406.

(63) Grofman, Bernard and Barbara Norrander. 1990. Efficient use of reference group cues in a single dimension. Public Choice, 64:213-227.

(64) Grofman, Bernard N. 1990. Toward a coherent theory of gerrymandering: Bandemer and Thornburg. In Bernard Grofman (Ed.), Political Gerrymandering and the Courts. New York: Agathon Press, 29-63.

(65) Erfle, Stephen, Henry McMillan and Bernard Grofman. 1990. Regulation via threats: politics, media coverage and oil pricing decisions. Public Opinion Quarterly, 54(1):48-63.

(66) Niemi, Richard G., Bernard Grofman, Carl Carlucci and Thomas Hofeller. 1990. Measuring compactness and the role of a competent standard in a test for partisan and racial gerrymandering. Journal of Politics, 52(4):1155-1181.

(67) Feld, Scott L. and Bernard Grofman. 1990. Collectivities as actors, Rationality and Society, 2(4):429-448.

(68) Hall, Richard L. and Bernard Grofman. 1990. The committee assignment process and the conditional nature of committee bias. American Political Science Review, 84(4):1149-1166.

(69) Grofman, Bernard, and Lisa Handley. 1991. The impact of the Voting Rights Act on black representation in southern state legislatures. Legislative Studies Quarterly, 16(1):111-127.

(70) Feld, Scott L. and Bernard Grofman. 1991. Incumbency advantage, voter loyalty and the benefit of the doubt. Journal of Theoretical Politics, 3(2):115-137.

PROFESSIONAL ARTICLES (in print) (cont.)

(71) Grofman, Bernard. 1991. Statistics without substance: A critique of Freedman et al. and Clark and Morrison. Evaluation Review, 15(6): 746-769.

(72) Grofman, Bernard and Lisa Handley. 1992. Identifying and remedying racial gerrymandering. Journal of Law and Politics, 8(2):345-404.

(73) Grofman, Bernard and Scott L. Feld. 1992. Group decision making over multidimensional objects of choice, Organizational Behavior and Human Performance, 52:39-63.

(74) Grofman, Bernard. 1992. Expert witness testimony and the evolution of voting right case law. In Bernard Grofman and Chandler Davidson (Eds.), Controversies in Minority Voting: The Voting Rights Act in Perspective. Washington, D.C.: The Brookings Institution, 197-229.

(75) Grofman, Bernard. 1992. What happens after one person-one vote: Implications of the U.S. experience for Canada" in John Courtney and David Smith (Eds.), Drawing Boundaries, Saskatoon, Saskatchewan: Fifth House Publishers, 156-178; translated into French, Que se passe-t-il après "une personne, une voix"? L'expérience Américaine, for Chief Electoral Officer of Canada, Elections Canada.). An earlier and shorter version appeared as "An expert witness perspective on continuing and emerging voting rights controversies: From one person, one vote to political gerrymandering." Stetson University Law Review, 1992, 21(3):783-818

(76) Grofman, Bernard. 1993. Would Vince Lombardi have been right if he had said, `When it comes to redistricting, race isn't everything, it's the only thing'? Cardozo Law Review, 14(5):1237-1276.

(77) Grofman, Bernard. 1993. Toward an institution rich theory of political competition, with a supply-side component. In Bernard Grofman (Ed.), Information, Participation, and Choice: An Economic Theory of Democracy' in Perspective. Ann Arbor, Michigan: University of Michigan Press, 179-193.

(78) Grofman, Bernard. 1993. The use of ecological regression to estimate racial bloc voting. University of San Francisco Law Review, 27(3): 593-625.

(79) Grofman, Bernard. 1993. Public choice, civic republicanism, and American politics: Perspectives of a `reasonable choice' modeler. Texas Law Review, 71(7):1541-1587. (A portion of this [pp. 1541, 1553-66] is reprinted in Tushnet, Mark and Lisa Heinzerling, The Regulatory and Administrative State. Oxford University Press, 2006.

PROFESSIONAL ARTICLES (in print) (cont.)

(80) Brischetto, Robert, David R. Richards, Chandler Davidson, and Bernard Grofman. 1994. Texas. In Davidson, Chandler and Bernard Grofman (Eds.), Quiet Revolution in the South: The Impact of the Voting Rights Act, 1965-1990. Princeton, NJ: Princeton University Press, 233-257.

(81) Grofman, Bernard and Chandler Davidson. 1994. The effect of municipal election structure on black representation in eight Southern states. In Davidson, Chandler and Bernard Grofman (Eds.), Quiet Revolution in the South: The Impact of the Voting Rights Act, 1965-1990. Princeton, NJ: Princeton University Press, 301-334.

(82) Handley, Lisa and Bernard Grofman. 1994. The Impact of the Voting Rights Act on Minority Representation: Black Officeholding in Southern State Legislatures and Congressional Delegations. In Davidson, Chandler and Bernard Grofman (Eds.), Quiet Revolution in the South: The Impact of the Voting Rights Act, 1965-1990. Princeton, NJ: Princeton University Press, 335-350.

(83) Glazer, Amihai, Robert Griffin, Bernard Grofman and Martin Wattenberg. 1995. Strategic vote delay in the U.S. House of Representatives. Legislative Studies Quarterly, 20(1):37-45.

(84) Skaperdas, Stergios and Bernard Grofman. 1995. Modeling negative campaigning. American Political Science Review, 89(1):49-61.

(85) Grofman, Bernard. 1995. New methods for valid ecological inference. In Monroe Eagles (Ed.), Spatial and Contextual Models in Political Research. London: Taylor and Francis, 127-149.

(86) Grofman, Bernard and Peter van Roozendaal. 1995. Toward a theoretical explanation of premature cabinet termination: With application to post-war cabinets in the Netherlands. European Journal of Political Research, 26:155-170.

(87) Landa, Janet, Michael Copeland and Bernard Grofman. 1995. Ethnic voting patterns: a case study of metropolitan Toronto. Political Geography, 14(5):435-449.

(88) Grofman, Bernard and Lisa Handley. 1995. 1990s Issues in voting rights. University of Mississippi Law Journal, 65(2):205-270.

(89) Grofman, Bernard. 1996. Extending a dynamic model of protocoalition formation. In Norman Schofield (Ed.), Collective Decision Making: Social Choice and Political Economy. Boston: Kluwer-Nijhoff, 265-280.

PROFESSIONAL ARTICLES (in print) (cont.)

(90) Grofman, Bernard, Phillip Straffin and Nicholas Noviello. 1996. The sequential dynamics of cabinet formation, stochastic error, and a test of competing models. In Norman Schofield (Ed.) Collective Decision Making: Choice and Political Economy. Boston: Kluwer-Nijhoff, 281-293.

(91) Grofman, Bernard. 1996. Political Economy: Downsian Perspectives. In Robert Goodin and Hans-Dieter Klingemann (Eds.) New Handbook of Political Science. New York and London: Oxford University Press, 691-701.

(92) Grofman, Bernard. 1997. The Supreme Court, the Voting Rights Act, and minority representation. In Anthony Peacock (Ed.), Affirmative Action and Representation: Shaw v. Reno and the Future of Voting Rights. Durham NC: Carolina Academic Press, 173-199.

(93) Merrill, Samuel and Bernard Grofman. 1997. Directional and proximity models of voter utility and choice: a new synthesis and an illustrative test of competing models. Journal of Theoretical Politics, 9(1):25-48

(94) Grofman, Bernard and Peter van Roozendaal. 1997. Modeling cabinet durability/cabinet termination: A synthetic literature review and critique. British Journal of Political Science, 27:419-451.

(95) Anderson, Richard and Bernard Grofman. 1997. Rhetoric and rationality: A study of democratization in the Soviet Union. Public Choice, 93:287-314

(96) Merrill III, Samuel and Bernard Grofman. 1997. Modeling large electorates with Fourier series: With applications to Nash equilibria in proximity and directional models of spatial competition. Social Choice and Welfare. 14(4):545-562.

(97) Falmagne, Jean-Claude, Michel Regenwetter and Bernard Grofman. 1997. A stochastic model for the evolution of preferences. In Anthony J. Marley (ed.) Decision and Measurement: Essays in Honor of R. Duncan Luce. New Jersey: Lawrence Erlbaum, 111-129.

(98) Owen, Guillermo and Bernard Grofman. 1997. Estimating the likelihood of fallacious ecological inference: Linear ecological regression in the presence of context effects. Political Geography. 16(8):657-690.

(99) Grofman, Bernard, Thomas Brunell, Janet Campagna. 1997. Distinguishing between the effects of swing ratio and bias on outcomes in the U.S. electoral college, 1900-1992. Electoral Studies, 16(4):471-487.

PROFESSIONAL ARTICLES (in print) (cont.)

(100) Grofman, Bernard, William Koetzle, Thomas Brunell. 1997. An integrated perspective on the three potential sources of partisan bias: Malapportionment, turnout differences, and the geographic distribution of party vote shares. Electoral Studies, 16(4):457-470

(101) Regenwetter, Michel and Bernard Grofman. 1998. Choosing subsets: A size-independent probabilistic model and the quest for a social welfare ordering, Social Choice and Welfare, 15(3):423-443.

(102) Regenwetter, Michel and Bernard Grofman. 1998. Approval voting, Borda winners and Condorcet winners: Evidence from seven elections. Management Science, 44(4):520-533.

(103) Handley, Lisa, Bernard Grofman, and Wayne Arden. 1998. Electing minority-preferred candidates to legislative office: The relationship between minority percentages in districts and the election of minority-preferred candidates. In Bernard Grofman (Ed.) Race and Redistricting in the 1990s. New York: Agathon Press, 13-39. (An earlier and shorter version of this appeared as Wayne Arden, Bernard Grofman and Lisa Handley. The impact of redistricting on African-American representation in the U.S. Congress and State Legislatures in the 1990s. In Georgia Persons (ed.) Race and Representation. Ann Arbor: University of Michigan Press.)

(104) Grofman, Bernard, and Lisa Handley. 1998. Estimating the impact of voting-rights-act-related districting on Democratic strength in the U.S. House of Representatives. In Bernard Grofman (Ed.) Race and Redistricting in the 1990s. New York: Agathon Press, 51-67.

(105) Glazer, Amihai, Bernard Grofman, and Guillermo Owen. 1998. A neo-Downsian model of group-oriented voting and racial backlash. Public Choice, 97:23-34.

(106) Grofman, Bernard. 1999. SNTV, STV, and single-member district systems: theoretical comparisons and contrasts. In Bernard Grofman, Sung- Chull Lee, Edwin Winckler, and Brian Woodall (Eds.) Elections in Japan, Korea and Taiwan under the Single Non-Transferable Vote: The Comparative Study of an Embedded Institution. Ann Arbor, MI: University of Michigan Press, 317-333.

(107) Grofman, Bernard. 1999. SNTV: An inventory of theoretically derived propositions and a brief review of the evidence from Japan, Korea, Taiwan and Alabama. In Bernard Grofman, Sung-Chull Lee, Edwin Winckler, and Brian Woodall (Eds.) Elections in Japan, Korea and Taiwan under the Single Non-Transferable Vote: The Comparative Study of an Embedded Institution. Ann Arbor, MI: University of Michigan Press, 375-416.

(108) Merrill, Sam, Bernard Grofman, and Scott L. Feld. 1999. Nash equilibrium strategies in directional models of two-candidate spatial competition. Public Choice, 98:369-383.

PROFESSIONAL ARTICLES (in print) (cont.)

(109) Brians, Craig L. and Bernard Grofman. 1999. When registration barriers fall, who votes? An empirical test of a rational choice model. Public Choice, 99:161-176.

(110) Grofman, Bernard, Guillermo Owen and Christian Collet. 1999. Rethinking the Partisan Effects of Higher Turnout: So What's the Question? Public Choice, 99:357-376.

(111) Merrill, Samuel, Bernard Grofman, Thomas Brunell and William Koetzle. 1999. The power of ideologically concentrated minorities. Journal of Theoretical Politics, 11(1):57-74.

(112) Regenwetter, Michel, Jean-Claude Falmagne, Bernard Grofman. 1999. A Stochastic Model of Preference Change and its Application to 1992 Presidential Election Panel Data. Psychological Review, 106(2):362-384.

(113) Grofman, Bernard and Heathcote W. Wales. 1999. Modeling Juror Bias. Legal Theory, 5:221-234.

(114) Grofman, Bernard. 2000. Lijphart and the new institutionalism. In Markus L. Crepaz, Thomas Koelble and David Wilsford (eds.) Democracy and Institutions: The Life Work of Arend Lijphart, Ann Arbor: University of Michigan Press, 43-73.

(115) Grofman, Bernard, William Koetzle, Michael McDonald, and Thomas Brunell. 2000. A new look at split ticket voting for House and President: The comparative midpoints model, Journal of Politics, 62(1):34-50.

(116) Grofman, Bernard and Andrew Reynolds. 2001. Electoral Systems and the art of Constitutional Engineering: An Inventory of the Main Findings. In Ram Mudambi, Pietro Navarra and Giuseppe Sobbrio (eds.) Rules and Reason: Perspectives on Constitutional Political Economy, New York and London: Cambridge University Press, 125-163. (Translated into Ukrainian and reprinted in Journal of Comparative Research of Political Institutions, Socio-Economic Systems and Civilizations (Volodimir Bilotkach). Kharkov, Ukraine: Regional Branch of the National Institute of Strategic Developments, 2005, pp. 29-70).

(117) Brians, Craig and Bernard Grofman. 2001. Election day registration's effect on US voter turnout. Social Science Quarterly, 82:170-183.

(118) Grofman, Bernard and Thomas Brunell. 2001. Explaining the ideological differences between the two U.S. senators elected from the same state: An institutional effects model. In Peter Galderisi (ed.) Congressional Primaries in the Politics of Representation. New York: Rowman and Littlefield Publishers, Inc., 132-142.

PROFESSIONAL ARTICLES (in print) (cont.)

(119) Grofman, Bernard, Lisa Handley and David Lublin. 2001. Drawing effective minority districts: A conceptual framework and some empirical evidence. North Carolina Law Review, 79:1383-1430.

(120) Merrill, Samuel, Bernard Grofman, and James Adams. 2001. Assimilation and contrast effects in voter projections of party locations: Evidence from Norway, France, and the U.S. European Journal of Political Research, 40:199-221.

(121) Grofman, Bernard, William Koetzle, A. J. McGann. 2002. Congressional leadership 1965-1996: A new look at the extremism versus centrality debate." Legislative Studies Quarterly, 27(1):87-100.

(122) McGann, Anthony, William Koetzle and Bernard Grofman. 2002. How an ideologically concentrated minority can trump a dispersed majority: Non-median voter results plurality, run-off and sequential elimination elections" American Journal of Political Science, 46(1):134-148.

(123) Grofman, Bernard and Timothy Brazill. 2002. Identifying the median justice on the Supreme Court through multidimensional scaling: Analysis of 'natural courts' 1953-1991. Public Choice, 112:55-79.

(124) Brazill, Timothy and Bernard Grofman. 2002. Factor analysis versus multidimensional scaling: Binary choice roll-call voting and the U.S. Supreme Court. Social Networks, 24:201-229.

(125) McGann, Anthony, Bernard Grofman and William Koetzle. 2002. Why party leaders are more extreme than their members: Modeling sequential elimination elections in the US House of Representatives" Public Choice, 113:337-356.

(126) Regenwetter, Michel, James Adams, and Bernard Grofman. 2002. On the Condorcet efficiency of majority rule: An alternative view of majority cycles and social homogeneity. Theory and Decision, 53:153-186.

(127) Regenwetter, Michel, Anthony Marley and Bernard Grofman. 2002. The general concept of majority rule," Mathematical Social Sciences 43(3):405-428.

(128) Grofman, Bernard and Robert Stockwell. 2003. Institutional design in plural societies: Mitigating ethnic conflict and fostering stable democracy." In Ram Mudambi, Pietro Navarra and Guiseppe Sobbrio (eds.), Economic Welfare, International Business and Global Institutional Change. New York: Edward Elgar, Publishers, 102-137.

(129) Tsetlin, Ilia, Michel Regenwetter, Bernard Grofman. 2003. The impartial culture maximizes the probability of majority cycles." Social Choice and Welfare, 21:387-398.

PROFESSIONAL ARTICLES (in print) (cont)

(130) Regenwetter, Michel, A. A. A. Marley, and Bernard Grofman. 2003. General concepts of value restriction and preference majority." Social Choice and Welfare, 21(1):149-173.

(131) Taagepera, Rein and Bernard Grofman. 2003. Mapping the indices of seats-votes disproportionality and inter-election volatility." Party Politics, 9(6):659-677.

(132) Grofman, Bernard, Alessandro Chiaramonte, Roberto D'Alimonte and Scott L. Feld. 2004. Comparing and contrasting the uses of two graphical tools for displaying patterns of multi-party competition: Nagayama diagrams and simplex representations. Party Politics, 10(3):273-299.

(133) Grofman, Bernard. Reflections on Public Choice. 2004. Public Choice 118:31-51.

(134) Grofman, Bernard and Samuel Merrill III. 2004. Ecological regression and ecological inference. In Gary King, Ori Rosen and Martin Tanner (eds.) Ecological Inference: New Methodological Strategies. New York: Cambridge University Press, pp. 123-143.

(135) Grofman, Bernard and Samuel Merrill III. 2004. Anticipating Likely Consequences of Lottery-Based Affirmative Action. Social Science Quarterly, 85(5): 1447-1468.

(136) Grofman, Bernard. 2004. Downs and two-party convergence. In Polsby, N. (ed.) Annual Review of Political Science, 7:25-46.

(137) Fraenkel, Jon and Bernard Grofman. 2004. A Neo-Downsian model of the alternate vote as a mechanism for mitigating ethnic conflict in plural societies. Public Choice, 121:487-506.

(138) O'Leary, Brendan, Bernard Grofman and Jorgen Elklit. 2005. "Divisor methods for sequential portfolio allocation in multi-party executive bodies: evidence from Northern Ireland and Denmark." American Journal of Political Science 49(1), 198-211.

(139) Grofman, Bernard. Race and redistricting in the 21st century. 2005. In Gary M. Segura, and Shaun Bowler (eds) Diversity in Democracy: Minority Representation in the United States. Charlottesville: University of Virginia Press, pp 253-277.

(140) Grofman, Bernard and Tom Brunell. 2005. "The art of the Dummymander: The Impact of Recent Redistrictings on the Partisan Makeup of Southern House Seats." In Galderisi, Peter (Ed.) Redistricting in the New Millennium, New York: Lexington Books, pp. 183-199.

(141) Adams, James, Samuel Merrill and Bernard Grofman. 2005. "Does France's Two-Ballot Presidential Election System Alter Candidates' Policy Strategies? A Spatial Analysis of Office-Seeking Candidates in the 1988 Presidential Election." French Politics, 3(2):98-123.

PROFESSIONAL ARTICLES (in print) (cont.)

(142) Fraenkel, Jon and Bernard Grofman. 2006. Does the Alternative Vote Foster Moderation in Ethnically Divided Societies? The Case of Fiji. Comparative Political Studies, 39(5): 623-651.

(143) Grofman, Bernard. 2006. Operationalizing the Section 5 Retrogression Standard of the Voting Rights Act in the Light of *Georgia v. Ashcroft*: Social Science Perspectives on Minority Influence, Opportunity and Control. Election Law Journal 5(3): 250-282.

(144) Grofman, Bernard and Thomas Brunell. 2006. Extending Section 5: Law and Politics. In David L. Epstein Rodolfo O. de la Garza, Sharyn O'Halloran and Richard H. Pildes (Eds). The Future of the Voting Rights Act. New York: Russell Sage Foundation, pp. 311-339.

(145) Owen, Guillermo and Bernard Grofman. 2006. Two-Stage Electoral Competition in Two-Party Contests: Persistent Divergence of Party Positions. Social Choice and Welfare, 26:547-569.

(146) Owen, Guillermo, Ines Lindner, Scott L. Feld, Bernard Grofman and Leonard Ray. 2006. A Simple 'Market Value' Bargaining Model for Weighted Voting Games: Characterization and Limit Theorems. International Journal of Game Theory, 35:111-126.

(147) Grofman, Bernard and Gary King. 2007. Partisan Symmetry and the Test for Gerrymandering Claims after *LULAC v. Perry*. Election Law Journal, 6 (1):2-35.

(148) Godfrey, Joseph and Bernard Grofman. 2008. Pivotal Voting Theory: The 1993 Clinton Health Care Reform Proposal in the U.S. Congress. In Braham, Matthew and Frank Steffen (Eds.) Power, Freedom, and Voting. Berlin: SpringerVerlag, 139-158.

(149) Owen, Guillermo, Ines Lindner and Bernard Grofman. 2008. Modified Power Indices for Indirect Voting. In Braham, Matthew and Frank Steffen (Eds.) Power, Freedom, and Voting. Berlin: SpringerVerlag, 119-138.

(150) Winer, Stanley, Michael Tofias, Bernard Grofman, and John Aldrich. 2008. Trending Economic Factors and the Structure of Congress in the Growth of Government, 1930-2002. Public Choice, 135 (3-4): 415-449.

(151) Samuel Merrill, III, Bernard Grofman, and Thomas L. Brunell. Cycles in American National Electoral Politics, 1854-2004. 2008. American Political Science Review, 102: (1)1-17.

(152) Grofman, Bernard and Jon Fraenkel. 2008. Electoral Engineering, Social Cleavages and Democracy. In Nardulli, Peter (Ed.) Democracy in The Twenty-First Century II: Domestic Perspectives. Urbana-Champaign, IL: University of Illinois Press, 71-101.

PROFESSIONAL ARTICLES (in print and forthcoming)

(153) Brunell, Thomas and Bernard Grofman. 2008. Evaluating the Impact of Redistricting on District Homogeneity, Political Competition and Political Extremism in the U.S. House of Representatives, 1962-2006. In Margaret Levi, James Johnson, Jack Knight, and Susan Stokes (Eds.), Designing Democratic Government. New York: Russell Sage Foundation, 117-140.

(154) Grofman, Bernard, Frank Wayman and Matthew Barreto. 2008. Rethinking Partisanship: Some Thoughts on a Unified Theory, in John Bartle and Paolo Bellucci (Eds.) Political Parties and Partisanship: Social Identity and Individual Attitudes. Routledge/ECPR Studies in European Political Science, 60-74.

(155) Regenwetter, Michael, Bernard Grofman, Anna Popova, William Messner, Clintin P. Davis-Stober, and Daniel R. Cavagnaro. 2009. Behavioural Social Choice: A Status Report. Philosophical Transactions of the Royal Society B – Biological Sciences. 364 (Issue 1518): 833-843.

(156) Brunell, Thomas and Bernard Grofman. 2009 "Testing Sincere versus Strategic SplitTicket Voting: Evidence from Split House-President Outcomes, 1900-1996." Electoral Studies, 28: 62-69.

(157) Grofman, Bernard and Peter Selb. 2009. A Fully General Index of Political Competition. Electoral Studies 28(2): 291-296.

(158) Bowler, Shaun, Bernard Grofman and Andre Blais. 2009. Duverger's Law in the United States. In Grofman, Bernard, Shaun Bowler, and Andre Blais (Eds.) Duverger's Law in Canada, India, the U.S. and the U.K. Berlin: Springer Verlag, 135-146.

(159) Feld, Scott L. and Bernard Grofman. 2009. Interpersonally Consistent Social Action. In P. Bearman and P. Hedstrom (Eds.). Oxford Handbook of Analytical Sociology. London and Oxford: Oxford University Press, XXX-XXX

(160) Thomas Brunell and Bernard Grofman. Redistricting. 2009. In Jan E. Leighley, (Ed.) Oxford Handbook of American Elections and Political Behavior. London and Oxford: Oxford University Press, XXX-XXX

(161) Grofman, Bernard. 2011 forthcoming. Electoral Rules and Ethnic Representation and Accommodation: Combining Social Choice and Electoral System Perspectives. In Joanne McEvoy and Brendan O'Leary (Eds.) Power Sharing in Deeply Divided Places. Philadelphia: University of Pennsylvania Press, XXX-XXX

(162) Lemennicier, Bertrand, Honorine Lescieux- Katir and Bernard Grofman. 2010, The 2007 French Presidential Election. Canadian Journal of Political Science. 43(1):137-161,

PROFESSIONAL ARTICLES (in print and forthcoming)

(163) Grofman, Bernard and Carsten Schneider. 2009. An Introduction to Crisp-Set QCA, With a Comparison to Binary Logistic Regression. Political Research Quarterly, 62 (4): 662-672.

(164) Grofman, Bernard and Peter Selb. 2011. Turnout and the (Effective) Number of Parties at the National and At the District Level: A Puzzle Solving Approach. Party Politics 17 (1): 93-117.

(165) Lublin, David, Tom Brunell, Bernard Grofman and Lisa Handley.2010 Has the Voting Rights Act Outlived its Usefulness? In a Word, No. Legislative Studies Quarterly. 34(4): 525-553.

(166) Bernard Grofman and Scott L. Feld. 2010. Puzzles and Paradoxes Involving Averages: An Intuitive Approach. In Ad van Deemen and Agnieszka Rusinowska (eds.) Collective Decision Making: Views from Social Choice and Game Theory, Berlin: Springer Verlag, XXX-XXX

(167) Nikolenyi, Csaba and Bernard Grofman. 2010 . The Puzzle of Minority Government in the Lok Sabha. In Csaba Nikolenyi. Minority Governments in India. London: Routledge, 87-120.

(168) Adams, James, Thomas Brunell, Bernard Grofman and Samuel Merrill. 2010 Why Candidate Divergence Should be Expected to be Just as Great (or even Greater) in Competitive Seats as in Non-Competitive Ones. Public Choice, 145 (3-4): 417-433

(169) Söderlund, Peter, Hanna Wass and Bernard Grofman. 2011 forthcoming.The effect of institutional and party system factors on turnout in Finnish parliamentary elections, 1962–2007: A district-level analysis. In Manfred Holler and Mike Wildgren (Eds.). "Essays in Honor of Hannu Nurmi." Special Issue of Homo Oeconomicus . XXX-XXX

(170) Merrill, Samuel III, Bernard Grofman and Thomas Brunell. 2011. Do Party Politics in Britain Exhibit Cycles? British Journal of Political Science, 41: 33-55.

(171) Grofman, Bernard. 2010. Thinking about Minority Political Influence: Did *Georgia v. Ashcroft* Get it Right and, if Not, why Not? Election Law Journal 9(4): 349-379

(172) Grofman, Bernard and Reuben Kline. forthcoming. How Many Political Parties are There, Really? A New Measure of the Ideologically Cognizable Number of Parties/Party Groupings. Party Politics,

PROFESSIONAL ARTICLES (in print and forthcoming) (cont.)

(173) Grofman, Bernard, Thomas Brunell and Scott Feld. forthcoming. Bicameralism: The Neglected Contributions of the Calculus of Consent. Public Choice.

(174) Godfrey, Joseph, Bernard Grofman, and Scott L. Feld. 2011 .Applications of Shapley-Owen Values and the Spatial Copeland Winner. Political Analysis

RESEARCH NOTES AND MINOR ARTICLES (in print)

(R1) Grofman, Bernard N. 1969. Some notes on voting schemes and the will of the majority. Public Choice, 7:65-80.

(R2) Grofman, Bernard N. 1972. The 1971 American Political Science Association election. PS (commissioned for Summer 1972), 278-289.

(R3) Pool, Jonathan and Bernard N. Grofman. 1975. Computer programs as a means of efficiency and control in cross-cultural experimental games. Experimental Study of Politics, 4(2):27-57.

(R4) Grofman, Bernard N. and Scott L. Feld. 1976. A note on clique avoidance in repeated jury selection from among a fixed pool of jurors: Comparisons of manpower savings in six- and twelve-member juries. Public Choice, 26:145-150.

(R5) Feld, Scott L. and Bernard N. Grofman. 1977. Variation in class size, the class size paradox, and some consequences for students. Research in Higher Education, 6(3):215-222.

(R6) Grofman, Bernard N. 1979. A pilot study of individual behavior as mediated by the group context: three- and five-member mock juries. Experimental Study of Politics, 7:41-54.

(R7) Grofman, Bernard N. 1979. Abstention in two-candidate and three-candidate elections when voters use mixed strategies. Public Choice, 34(2):189-200.

(R8) Feld, Scott L. and Bernard N. Grofman. 1980. Conflict of interest between faculty, students and administrators: Consequences of the class size paradox. In Gordon Tullock (Ed.), Frontiers of Economics, 3:111-116.

(R9) Grofman, Bernard N. 1981. Fair apportionment and the Banzhaf index. American Mathematical Monthly, 88(1):1-5.

(R10) Grofman, Bernard N. and Howard Scarrow. 1980/1981. Introduction to 'Special Issue on Reapportionment.' Policy Studies Journal, Special Issue 3(9) and 9(6):817-825.

(R11) Grofman, Bernard N. 1981. Fair and equal representation. Ethics, 91:477-485.

(R12) Grofman, Bernard N. 1982. For single-member districts, random is not equal. In Bernard Grofman, Arend Lijphart, Robert McKay and Howard Scarrow (Eds.), Representation and Redistricting Issues, Lexington, MA: Lexington Books,55-58.

(R13) Brody, Richard and Bernard N. Grofman. 1982. Stimulus differentiation vs. stimulus complexity as factors affecting turnout in two-candidate and multi-candidate races. Political Behavior, 4(1):83-92.

RESEARCH NOTES AND MINOR ARTICLES (in print) (cont.)

(R14) Grofman, Bernard N., Guillermo Owen and Scott L. Feld. 1982. Average competence, variability in individual competence, and the accuracy of statistically pooled group decisions. Psychological Reports, 50:683-688.

(R15) Grofman, Bernard N. and Scott L. Feld. 1984. Group size and the performance of a composite group majority: Statistical truths and empirical results. Organizational Behavior and Human Performance, 33:350-359.

(R16) Lijphart, Arend and Bernard Grofman. 1984. Introduction. In Arend Lijphart and Bernard Grofman (Eds.), Choosing an Electoral System. NY: Praeger, 3-12.

(R17) Grofman, Bernard N. 1985. The neglected role of the status quo in models of issue voting. Journal of Politics, 47:231-237. Reprinted in Kai Arzheimer and Jocelyn Evans (Eds.) Electoral Behaviour. SAGE Publications. June 2008.

(R18) Grofman, Bernard N. and Nicholas Noviello. 1985. Jai-Alai outcomes as a function of player position and player skill level. Simulation and Games, 16(2):211-223.

(R19) Grofman, Bernard N. 1985. The accuracy of group majorities for disjunctive and conjunctive decision tasks. Organizational Behavior and Human Performance, 35:119-123.

(R20) Grofman, Bernard N. 1985. The effect of restricted and unrestricted verdict options on juror choice. Social Science Research, 14:195-204.

(R21) Grofman, Bernard N. and Arend Lijphart. 1986. Introduction. In Bernard Grofman and Arend Lijphart (Eds.), Electoral Laws and Their Political Consequences. NY: Agathon, 1-15.

(R22) Grofman, Bernard, Michael Migalski and Nicholas Noviello. 1986. Effects of multimember districts on black representation in state legislatures. Review of Black Political Economy, 14(4):65-78.

(R23) Grofman, Bernard N. and Guillermo Owen. 1986. Condorcet models: Avenues for future research. In Bernard Grofman and Guillermo Owen (Eds.), Information Pooling and Group Decision Making, Greenwich, CT: JAI Press, 93-102.

(R24) Grofman, Bernard N. and Scott L. Feld. 1986. Determining optimal weights for expert judgment. In Bernard Grofman and Guillermo Owen (Eds.), Information Pooling and Group Decision Making, Greenwich, CT: JAI Press, 67-172.

(R25) Feld, Scott L. and Bernard Grofman. 1986. Partial single-peakedness: an extension and clarification. Public Choice, 51:71-80.

RESEARCH NOTES AND MINOR ARTICLES (in print) (cont.)

(R26) Glazer, Amihai and Bernard Grofman. 1987. Two plus two plus two equals six: Term lengths of representatives and senators. Legislative Studies Quarterly, 12(4):555-563.

(R27) Owen, Guillermo and Bernard Grofman. 1987. A theorem on the optimal allocation of effort. Revista Colombiana de Matematicas, Vol. 21 (1987) 201-212.

(R28) Glazer, Amihai and Bernard Grofman. 1988. Limitations of the spatial model. Public Choice, 58:161-167.

(R29) Feld, Scott L., Bernard Grofman and Nicholas Miller. 1988. Centripetal forces in spatial voting: On the size of the yolk. Public Choice, 59:37-50.

(R30) Norrander, Barbara and Bernard Grofman. 1988. A rational choice model of citizen participation in high and low commitment electoral activities. Public Choice, 57:187-192.

(R31) Feld, Scott L. and Bernard Grofman. 1988. Majority rule outcomes and the structure of debate in one-issue-at-a-time decision making. Public Choice, 59:239-252.

(R32) Feld, Scott L. and Bernard Grofman. 1988. The Borda count in n-dimensional issue space. Public Choice, 59:167-176.

(R33) Grofman, Bernard. 1989. Richard Nixon as Pinocchio, Richard II, and Santa Claus. Journal of Politics, 51(1):165-173.

(R34) Glazer, Amihai and Bernard Grofman. 1989. Why representatives are ideologists though voters are not. Public Choice, 61:29-39.

(R35) Grofman, Bernard and Scott L. Feld. Toward a sociometric theory of representation. In Manfred Kochen (Ed.), The Small World. Norwood, NJ: Ablex, 1988, 100-107.

(R36) Owen, Guillermo, Bernard Grofman and Scott L. Feld. 1989. Proving a distribution-free generalization of the Condorcet jury theorem. Mathematical Social Sciences, 17:1-6.

(R37) Grofman, Bernard. 1989. The comparative analysis of coalition formation and duration: Distinguishing between-country and within-country effects. British Journal of Political Science, 19:291-302.

(R38) Grofman, Bernard. 1989. Introduction. In Bernard Grofman and Donald Wittman (Eds.), The 'Federalist Papers' and the New Institutionalism. NY: Agathon Press, 7-9.

(R39) Glazer, Amihai, Bernard Grofman and Guillermo Owen. 1989. A model of candidate convergence under uncertainty about voter preferences. Mathematical and Computer Modelling, 12(4/5):437-450, reprinted in Paul E. Johnson (Ed.), Mathematical Modelling in Political Science. Oxford: Pergamon Press, 1989.

RESEARCH NOTES AND MINOR ARTICLES (in print) (cont.)

(R40) Klingemann, Hans-Dieter, Bernard Grofman and Janet Campagna. 1989. The Political Science 400: Citations by Ph.D. Cohort and by Ph.D.- Granting Institution. PS:258-270.

(R41) Glazer, Amihai and Bernard Grofman. 1989. Must liberals always vote for liberals, and need the more competent candidate always be preferred? British Journal of Political Science, 19:154-159.

(R42) Grofman, Bernard and Lisa Handley. 1989. Minority population proportion and Black and Hispanic congressional success in the 1970s and 1980s. American Politics Quarterly, 17(4):436-445; reprinted in revised and updated form under the title "Preconditions for Black and Hispanic congressional success," in Wilma Rule and Joseph Zimmerman (Eds.) United States Electoral Systems: Their Impact on Women and Minorities. New York. Greenwood Press, 1992.

(R43) Bernard Grofman and Scott L. Feld. 1989. Democratic theory and the public interest: Condorcet and Rousseau revisited. American Political Science Review, 83(4): 1328-1340.

(R44) Grofman, Bernard, Robert Griffin and Amihai Glazer. 1990. Identical geography, different party: A natural experiment on the magnitude of party differences in the U.S. Senate, 1960-84. In Johnston, R.J., F.M. Shelley and P.J. Taylor (Eds.), Developments in Electoral Geography. London: Routledge, 207-217.

(R45) Miller, Nicholas, Bernard Grofman and Scott L. Feld. 1990. Cycle avoiding trajectories, strategic agendas, and the duality of memory and foresight: An informal exposition. Public Choice, 64:265-277.

(R46) Grofman, Bernard N. 1990. Introduction. In Bernard Grofman (ed.), Political Gerrymandering and the Courts. NY: Agathon Press, 3-9.

(R47) Grofman, Bernard. 1990. Investing in knowledge production: Should political scientists be paid to think? Journal of Theoretical Politics, 2(2):231-236.

(R48) Campagna, Janet and Bernard Grofman. 1990. Party control and partisan bias in 1980s congressional redistricting. Journal of Politics, 52(4):1242-1257.

(R49) Miller, Nicholas, Bernard Grofman and Scott L. Feld. 1990. The structure of the Banks set. Public Choice, 66:243-251.

(R50) Feld, Scott L. and Bernard Grofman. 1991. The half-win set and the geometry of spatial voting. Public Choice, 70:245-250.

(R51) Grofman, Bernard, Robert Griffin and Amihai Glazer. 1991. Is the Senate more liberal than the House?: Another look. Legislative Studies Quarterly, 16(2):281-295.

RESEARCH NOTES AND MINOR ARTICLES (in print) (cont.)

(R52) Brady, David and Bernard Grofman. 1991. Sectional differences in partisan bias and electoral responsiveness in U.S. House elections, 1850-1980. British Journal of Political Science, 21(Part 2):247-256.

(R53) Feld, Scott L. and Bernard Grofman. 1991. Voting in one's head as a source of nearly transitive preferences over multi-dimensional issues. Annals of Operations Research, 23:257-263.

(R54) Grofman, Bernard. 1991. Multivariate methods and the analysis of racially polarized voting: Pitfalls in the use of social science by the courts. Social Science Quarterly, 72(4):826-833.

(R55) Brady, David W. and Bernard Grofman. 1991. Modeling the determinants of swing ratio and bias in U.S. House elections, 1850-1980. Political Geography Quarterly, 10(3):254-262.

(R56) Glazer, Amihai and Bernard Grofman. 1992. A positive correlation between turnout and plurality does not refute the rational voter model. Quality and Quantity, 26: 85-93.

(R57) Feld, Scott L. and Bernard Grofman. 1992. Who's afraid of the big bad cycle? Journal of Theoretical Politics, 4(2):231-237.

(R58) Thomas, Scott J. and Bernard Grofman. 1992. Determinants of legislative success in House committees, Public Choice, 74:233-243.

(R59) Grofman, Bernard and Chandler Davidson. 1992. Postscript: What is the best route to a color-blind society? In Bernard Grofman and Chandler Davidson (Eds.), Controversies in Minority Voting: The Voting Rights Act in Perspective. Washington, D.C.: The Brookings Institution, 300-317.

(R60) Grofman, Bernard, Robert Griffin and Amihai Glazer. 1992. The effect of black population on electing Democrats and liberals to The House of Representatives. Legislative Studies Quarterly, 17(3):365-379.

(R61) Thomas, Scott J. and Bernard Grofman. 1992. The effects of congressional rules about bill co-sponsorship on duplicate bills: Changing incentives for credit claiming. Public Choice, 75:93-98.

(R62) Grofman, Bernard. 1992. Meeting Dynamics. In Gregory Phifer (ed.), Readings in Parliamentary Law. Dubuque, Iowa: Kendall/Hunt, 53-58; reprinted from 1977 Parliamentary Journal, 18.

(R63) Grofman, Bernard. 1993. Editor's Introduction. In Bernard Grofman (ed.) Information, Participation and Choice: "An Economic Theory of Democracy" in Perspective. Ann Arbor, Michigan: University of Michigan Press, 1-13.

RESEARCH NOTES AND MINOR ARTICLES (in print) (cont.)

(R64) Grofman, Bernard and Julie Withers. 1993. Information pooling models of electoral competition. In Bernard Grofman (ed.), Information, Participation and Choice: "An Economic Theory of Democracy" in Perspective. Ann Arbor, Michigan: University of Michigan Press, 55-64.

(R65) Wattenberg, Martin P. and Bernard Grofman. 1993. A rational choice model of the President and Vice-President as a package deal. In Bernard Grofman (ed.), Information, Participation and Choice: "An Economic Theory of Democracy" in Perspective. Ann Arbor, Michigan: University of Michigan Press, 173-177.

(R66) Grofman, Bernard. 1993. Voting rights in a multi-ethnic world. Chicano-Latino Law Review, 13(15):15-37.

(R67) Davidson, Chandler and Bernard Grofman. 1994. Editors' Introduction. In Chandler Davidson, and Bernard Grofman (eds.), Quiet Revolution in the South: The Impact of the Voting Rights Act, 1965-1990. Princeton, NJ: Princeton University Press, 3-17.

(R68) Davidson, Chandler and Bernard Grofman. 1994. The Voting Rights Act and the Second Reconstruction. In Chandler Davidson and Bernard Grofman (eds.), Quiet Revolution in the South: The Impact of the Voting Rights Act, 1965-1990. Princeton, NJ: Princeton University Press, 378-387.

(R69) Grofman, Bernard and Lisa Handley. 1995. Racial context, the 1968 Wallace vote, and Southern presidential dealignment: Evidence from North Carolina and elsewhere. In Munroe Eagles (Ed.), Spatial and Contextual Models in Political Research. London: Taylor and Francis, 151-162.

(R70) Grofman, Bernard, Robert Griffin and Gregory Berry. 1995. House members who become senators: Learning from a "natural experiment" in representation. Legislative Studies Quarterly, 20(4):513-529.

(R71) Grofman, Bernard and Neil Sutherland. 1996. The effect of term limits when competition is endogenized: A preliminary model. In Bernard Grofman (ed.), Legislative Term Limits: Public Choice Perspectives. Boston: Kluwer, 175-182.

(R72) Grofman, Bernard and Neil Sutherland. 1996. Gubernatorial term limits and term lengths in historical perspective, 1790-1990. In B. Grofman (Ed.) Legislative Term Limits: Public Choice Perspectives. Boston: Kluwer, 279-287.

(R73) Grofman, Bernard and Andrew Reynolds. 1996. Modeling the dropoff between minority population share and the size of the minority electorate in situations of differential voter eligibility across groups. Electoral Studies, 15(2):255-261.

RESEARCH NOTES AND MINOR ARTICLES (in print) (cont.)

(R74) Feld, Scott L. and Bernard Grofman. 1996. Stability induced by no quibbling. Group Decision and Negotiation, 5:283-294.

(R75) Grofman, Bernard. 1997. Seven durable axes of cleavage in political science. In Kristen Monroe (Ed.), Contemporary Empirical Political Theory. Berkeley: University of California Press, 73-86.

(R76) Hanks, Christopher and Bernard Grofman. 1998. Turnout in gubernatorial and senatorial primary and general elections in the South, 1922-90: A rational choice model of the effects of short-run and long-run electoral competition on turnout. Public Choice, 94:407-421.

(R77) Grofman, Bernard, Thomas L. Brunell, and William Koetzle. 1998. Why is there sometimes midterm gain in the Senate but (almost) always midterm loss in the house? Legislative Studies Quarterly 23(1):79-89.

(R78) Brunell, Thomas, and Bernard Grofman. 1998. Explaining Divided U.S. Senate Delegations, 1788-1994. American Political Science Review 92(2):1-9.

(R79) Grofman, Bernard and Lisa Handley. Voting Rights in the 1990s: An Overview. 1998. In Bernard Grofman (Ed.) Race and Redistricting in the 1990s. New York: Agathon Press, 69-79. (An earlier and shorter version of this appeared as Bernard Grofman, The 1990s round of redistricting: A schematic outline of some key features. In Georgia Persons (ed.) Race and Representation. New Brunswick NJ: Transaction Publishers).

(R80) Merrill, Samuel and Bernard Grofman. 1998. Conceptualizing voter choice for directional and discounting models of two-candidate spatial competition in terms of shadow candidates. Public Choice, 95: 219-231.

(R81) Grofman, Bernard, Robert Griffin and Christian Collet. 1998. Analyzing the turnout-competition link with aggregate cross-sectional data. Public Choice, 95: 233-246.

(R82) Grofman, Bernard. 1999. Preface: Methodological steps toward the study of embedded institutions. In Bernard Grofman, Sung-Chull Lee, Edwin Winckler, and Brian Woodall (Eds.) Elections in Japan, Korea and Taiwan under the Single Non-Transferable Vote: The ComparativeStudy of an Embedded Institution. Ann Arbor, MI: University of Michigan Press, ix-xvii.

(R83) Grofman, Bernard, Samuel Merrill, Thomas L. Brunell, and William Koetzle. 1999. The Potential Electoral Disadvantages of a Catch-All Party: Ideological Variance Among Republicans and Democrats in the 50 U. S. States. Party Politics 5(2): 199-210.

(R84) Arrington, Theodore S. and Bernard Grofman. 1999. Party registration choices as a function of the geographic distribution of partisanship: A model of "hidden partisanship" and an illustrative test. Political Geography, 18(2):173-185.

RESEARCH NOTES AND MINOR ARTICLES (in print) (cont.)

(R85) Brunell, Thomas, William Koetzle, John DiNardo, Bernard Grofman, and Scott L. Feld. 1999. The $R^2 = .93$: Where Then Do They Differ? Comparing liberal and conservative interest group ratings. Legislative Studies Quarterly, 14:87-101.

(R86) Grofman, Bernard, Evald Mikkel, and Rein Taagepera. 1999. Electoral systems change in Estonia, 1989-1993. The Journal of Baltic Studies, 30(3):227-249.

(R87) Grofman, Bernard, Evald Mikkel, and Rein Taagepera. 2000. Fission and fusion of parties in Estonia, 1987-1999. Journal of Baltic Studies, 31(4): 329-357.

(R88) Grofman, Bernard. 2000. Civil rights, the Constitution, common decency and common sense. In Bernard Grofman (ed.), Legacies of the 1964 Civil Rights Act, Charlottesville: University Press of Virginia, 219-230.

(R89) Grofman, Bernard, William Koetzle, Samuel Merrill, and Thomas Brunell. 2001. Changes in the Location of the Median Voter in the U.S. House of Representatives, 1963-1996. Public Choice, 106(3-4):221-232.

(R90) Regenwetter, Michel, Bernard Grofman and Anthony Marley. 2002. "On the model dependence of majority preference relations reconstructed from ballot or survey data." Mathematical Social Sciences 43(3):451-466.

(R91) Ray, Leonard, Scott L. Feld and Bernard Grofman. 2003. Implications of Expansion of the European Union for Decisions Within the EU Council. Rivista Italiana di Politiche Pubbliche., vols. 2-3:37-58. (Published in Italian)

(R92) Grofman, Bernard and Scott L. Feld. 2004. If you like the alternative vote (a.k.a. the instant runoff) then you ought to know about the Coombs Rule. Electoral Studies 23:641-659.

(R93) Grofman, Bernard. 2004. Rein Taagepera's approach to the study of electoral systems. Journal of Baltic Studies 35(2): 167-185.

(R94) Johnston, Gregory, Leonard Ray, Scott Feld, and Bernard Grofman. 2004. The Impacts of Voting Rules on Acceding EU Member States. Rivista di Politica Economica, #VII-VIII (year XCIV, 3rd series, pp. 105-120; Reprinted in Geoffrey Brennan (ed.) Coercive Power and its Allocation in the Emergent Europe. Palgrave-Macmillan, 2005, pp. 103-117.

(R95) Grofman, Bernard and Scott Feld. 2005. Thinking About the Political Impacts of the Electoral College. Public Choice, 123:1-18.

RESEARCH NOTES AND MINOR ARTICLES (in print) (cont.)

(R96) Fraenkel, Jonathan and Bernard Grofman. 2005. Editor's Introduction – Special Issue: Political Culture, Representation and Electoral Systems in the Pacific Islands. Commonwealth and Comparative Politics (Fraenkel, Jon and Bernard Grofman, eds.) 43(3):261-275.

(R97) Grofman, Bernard. 2006. "The Impacts of Electoral Laws on Political Parties. In Weingast, Barry R. and Donald Wittman (eds) The Oxford Handbook of Political Economy. New York and London: Oxford University Press, 102-118.

(R98) Feld, Scott L. and Bernard Grofman. 2007. The Laakso-Taagepera Index in a Means and Variance Framework. Journal of Theoretical Politics 19 (1): 101-106.

(R99) Grofman, Bernard. 2007. Toward a science of politics? European Political Science. 6: 143-155.

(R100) Masuoka, Natalie, Bernard Grofman and Scott Feld. 2007. The Political Science 400: A 20-Year Update." PS: Political Science & Politics 40(1):133-145.

(R101) Masuoka, Natalie, Bernard Grofman and Scott L. Feld. 2007. "Production and Placement of Ph.D's: 1902-2000." PS: Political Science & Politics 40: (4) 361-366.

(R102) Masuoka, Natalie, Bernard Grofman and Scott L. Feld. 2007 Ranking Departments: A Comparison of Alternative Approaches. PS: Political Science & Politics 40: 531-537.

(R103) Frankel, Jon and Bernard Grofman. 2007. The Merits of New-Downsian Modeling of the Alternative Vote: A Reply to Horowitz. Public Choice 133:1-11.

(R104) Fowler, James H., Grofman, Bernard and Natalie Masuoka. 2007. Social Networks in Political Science: Hiring and Placement of Ph.D.s, 1960-2002. PS: Political Science & Politics 40:(4) 729-739.

(R105) Grofman, Bernard. 2008. A Taxonomy of Runoff Methods. Electoral Studies 27: 395-399.

RESEARCH NOTES AND MINOR ARTICLES (in print and forthcoming)

(R106) Brunell, Thomas and Bernard Grofman. 2008. The Partisan Consequences of *Baker v. Carr* and the 'One Person, One Vote' Revolution. In Handley, Lisa and Bernard Grofman (Eds.) Redistricting in Comparative Perspective. Oxford: Oxford University Press, 225-236.

(R107) Lemennicier, B., Lescieux-Katir H., and Bernard Grofman. 2008. When Does the Candidate Supported by the Median Voter Win? French Presidential Elections, 1965-2007. French Politics, (6) 388-394.

(R108) Grofman, Bernard and Matt A. Barreto. 2009. A Reply to Zax's (2002) Critique of Grofman and Migalski (1988): 'Double Equation Approaches to Ecological Inference When the Independent Variable is Misspecified.' Sociological Methods & Research, 37(4): 599-617.

(R109) Grofman, Bernard. 2009. Determinants of Political Science Faculty Salaries at the University of California. PS: Political Science & Politics, 43(4) 719-727.

(R110) Grofman, Bernard and Reuben Kline. 2010. Evaluating the Impact of Vice-Presidential Selection on Voter Choice. Presidential Studies Quarterly, 40 (2): 303-309.

(R111) Grofman, Bernard and Reuben Kline. 2010. A New Measure for Understanding the Tenure of U.S. Supreme Court Justices, 1789-2009. Judicature, 93(6): 247-252.

(R112) Grofman, Bernard. 2010. Constraints on the Turnout Gap Between High and Low Knowledge (or Income) Voters: Combining the Duncan-Davis Method of Bounds with the Taagepera Method of Bounds. Electoral Studies 29 (4): 673-677.

(R113) Grofman, Bernard. F. Electoral Systems. 2011. In Bertrand Badie, Dirk Berg-Schlosser and Leonardo Morlino (Eds.) International Handbook of Political Science. Sage Publications, XXX

PREPARED TESTIMONY AND PHOTO-OFFSET CONFERENCE PROCEEDINGS

(T1) Mathematics and politics: Mathematical reasoning and optimal jury decision processes. Plus, Reply. In Max Black (Ed.), Problems of Choice and Decision: Proceedings of a Colloquium Held in Aspen, Colorado, June 24-July 6, 1974. Cornell University Program on Science, Technology, and Society and Aspen Institute for Humanistic Studies: Photo-offset, 1975, 331-337; 544-547.

(T2) A comment on Black's 'rationality and cultural relativism.' In Max Black (Ed.), Problems of Choice and Decision: Proceedings of a Colloquium Held in Aspen, Colorado, June 24-July 6, 1974. Cornell University Program on Science, Technology, and Society and Aspen Institute for Humanistic Studies: Photo-offset, 1975, 161-190.

(T3) Grofman, Bernard, Scott L. Feld and Guillermo Owen. Synopsis: A Bayesian approach to optimal decision making. In J. L. Elohim (Ed.), Proceedings of the Fifth International Congress of Systems and Cybernetics, Mexico City, August 13-17, 1981, photo-offset, 1981.

(T4) Comment on H.R. 2349, a bill on standards for congressional redistricting. Prepared for the staff of the Wednesday Study Group, U.S. House of Representatives, April 1981.

(T5) Report on the constitutionality of Hawaii Reapportionment Commission's proposed state legislative redistricting. Prepared testimony in Travis v. King, U.S. District Court for the State of Hawaii, March 23-24, 1982, photo-offset.

(T6) Report to the Special Master on methodology used to insure compliance with standards of the Voting Rights Act of 1965, Flateau v. Anderson. U.S. District Court, Southern District of New York, June 7, 1982, photo-offset.

(T7) The disadvantageous effects of at-large elections on the success of minority candidates for the Charlotte and Raleigh City Councils. Prepared testimony in Gingles v. Edmisten. U.S. District Court for the State of North Carolina, August 1983, photo-offset.

(T8) Effects of multimember districts in state legislative elections in eight North Carolina counties, 1978-1982. Prepared testimony in Gingles v. Edmisten, U.S. District Court for the State of North Carolina, August 1983, photo-offset. (Also see R22.)

(T9) Report on prima facie evidence of political gerrymandering in the 1983 California Congressional redistricting plan, plus Rejoinder. Prepared testimony in Badham v. Eu, U.S. District Court for the State of California, December 1983, photo-offset.

(T10) Report on the effects of the proposed redistricting plan for the South Carolina Senate. Prepared testimony in South Carolina v. U.S., U. S. District Court for the District of Columbia, photo-offset, July 1984.

PREPARED TESTIMONY AND PHOTO-OFFSET CONFERENCE PROCEEDINGS (cont.)

(T11) Affidavits in Haskins v. Wilson County, U.S. District Court for the State of North Carolina, photo-offset, 1985-86.

(T12) Affidavit in Jackson v. Nash County, U.S. District Court for the State of North Carolina, April 1986.

(T13) Affidavits in U.S. v. City Council of Los Angeles, U.S. District Court for the State of California, July 1986.

(T14) Declarations in Gomez v. City of Watsonville, U.S. District Court for the State of California, August and October 1986.

(T15) Declarations in McGhee et al. v. Granville County of North Carolina, U.S. District Court for the State of North Carolina, 1987.

(T16) Declarations in Badillo et al. v. City of Stockton, U.S. District Court for the State of California, December 1987 and February 1988.

(T17) Affidavits in Republican National Committee of North Carolina v. James G. Martin, U.S. District Court for the State of North Carolina, July, August 1988.

(T18) Report in Chisom v. Roemer, Civil Action No. 86-4075 in the Eastern District of Louisiana, October 1988, revised March 1989.

(T19) Affidavits regarding minority representation in the 1988 Republican National Convention, August 5, 1988, and August 8, 1988.

(T20) Report in Garza v. Los Angeles County Board of Supervisors. U.S. District Court for the State of California, April 1989; Declaration, October 26, 1989.

(T21) Report for the Alaska Districting Commission on racially polarized voting in elections to the Alaska legislature, May 1991.

(T22) Report in Republican State Party of Massachusetts v. Connolly, U.S. District Court for the State of Massachusetts, December 1991.

(T23) Declaration in Pope et al. v. Blue et al., U.S. District Court, Western District, Charlotte, North Carolina Division, March 5, 1992.

(T24) Declaration in Prosser v. State of Wisconsin Board of Elections, U.S. District Court for the State of Wisconsin, April 1992.

(T25) Reports for State of Alaska on the 1992 legislative districts, November 1993, January 1994.

PREPARED TESTIMONY AND PHOTO-OFFSET CONFERENCE PROCEEDINGS (cont.)

(T26) Declaration in Republican Party of North Carolina v. James B. Hunt, Governor of North Carolina, April 1994.

(T27) Expert witness declaration in Bush. v Vera, U.S. District Court, Texas, July 18, 1996.

(T28) Expert witness declaration in Shaw v. Hunt, U.S. District Court, North Carolina, July 24, 1996.

(T29) Expert witness declaration in Garcia v. City of Los Angeles, U.S. District Court, California, November 20, 1996.

(T30) Expert witness reports in Arrington et al. v. Elections Bd. 173 F. Supp. 2d 856 U.S. District Court, Eastern Division, Wisconsin, January, February and March, 2002.

(T31) Expert witness affidavit in Rodriguez et al. v. Pataki, et al., Case No. 02 Civ. 618, 01 Civ. 3843, U.S. District Court, Southern District of New York, May 11, 2002.

(T32) Report on Election Rules for Determining Representation on New York City Community District Education Councils. Prepared for NYC Dept of Education, October, 2003.

(T33) Grofman, Bernard and Gary Jacobson. Amicus Brief in the U.S. Supreme Court on Behalf of Neither Party in Vieth v. Jubelirer 541 U.S. 267 (2004)

(T34) King, Gary, Bernard Grofman, Jonathan Katz and Andrew Gelman. Amicus Brief, in the U.S. Supreme Court on Behalf of Neither Party in LULAC v. Perry 126 S. Ct. 2549 (2006)

(T35) Persily, Nathaniel, Bernard Grofman, Bruce Cain, Theodore Arrington and Lisa Handley. Amicus Brief in the U.S. Supreme Court on Behalf of Neither Party in Bartlett v. Strickland No. 07-689. (2008)

BOOK NOTES, REVIEWS AND COMMUNICATIONS (in print)

(B1) Book note: Robert's Rules of Order (New, Revised). 1970. American Political Science Review, 64:1288-1290.

(B2) The 1970 APSA election." 1972. PS, (Summer):278-289.

(B3) A note on some generalizations of the paradox of cyclical majorities. 1972. Public Choice, 12:113-114.

(B4) Book note: John Sohnquist, Multivariate Model Building. 1974. American Political Science Review, 69:1749.

(B5) Rational choice models and self-fulfilling and self-defeating prophecies. In W. Leinfellner and E. Kohler (Eds.), Developments in the Methodology of Social Science, Boston: Reidel, 1974, 381-383.

(B6) A comment on "Democratic theory: A preliminary mathematical model." 1975. Public Choice, 21:100-103.

(B7) Book note: William H. Riker and Peter C. Ordeshook, An Introduction to Positive Political Theory. 1976. Theory and Decision, 231-234.

(B8) A comment on "Single-peakedness and Guttman scales: Concept and measurement." 1976. Public Choice, 28:107-111.

(B9) Communication: Sloppy sampling - a comment on "six-member juries in the Federal Courts." 1977. Social Action and the Law Newsletter, 4(2):4-5.

(B10) Communication: 'Differential effects of jury size. . .' revisited. 1977. Social Action and the Law Newsletter, 4(2):7-11.

(B11) Monopoly, the state of the art: A review of The Monopoly Book and 1000 Ways to Win Monopoly Games. 1978. Simulation and Games, 9:245-251. (Reprinted in Sigelman et al. (Eds.), The Wit and Humor of Political Science. APSA.)

(B12) Monopoly is a capitalist plot. 1978. Simulation and Games, 9(2): 252-254. (Reprinted in 1979, Puzzles and Games, 70).

(B13) Book note: Keith M. Baker, Condorcet: From Natural Philosophy to Social Mathematics. 1978. American Political Science Review, 72(1): 212-213.

(B14) Book note: Oliver Thomson, Mass Persuasion in History. 1978. Journal of Communication, (Autumn):204-205.

BOOK NOTES, REVIEWS AND COMMUNICATIONS (in print) (cont.)

(B15) A comment on Dye and McManus' use of discriminant function analysis. 1978. Political Methodology, 5:241-248.

(B16) Book note: Michael Saks, Jury Verdicts. 1979. Social Action and the Law Newsletter, 5(1):9-11.

(B17) Book note: Michael Tracey, The Production of Political Television. 1979. Journal of Communication, 29(4):211-212.

(B18) A note on Abraham Lincoln in probabilityland. 1979. Theory and Decision, 11:453-455.

(B19) The case for majority jury verdicts. 1979. Trial Magazine, 18(12): 23-25, 29, 47-48.

(B20) Book review: Michael Taylor, Anarchy and Cooperation. 1980. Theory and Decision, 12:107-114.

(B21) Book note: Susan Hensley, Body Politics: Power, Sex, and Nonverbal Communication. American Political Science Review, Vol. 74 (March 1980), 166-167.

(B22) Book note: Howard D. Hamilton, Electing the Cincinnati City Council: An Examination of Alternative Electoral-Representation Systems. 1981. American Political Science Review, 75:771-772.

(B23) Comment: Should representatives be 'typical' of their constituents? In B. Grofman, A. Lijphart, R. McKay, and H. Scarrow (Eds.), Representation and Redistricting Issues. Lexington, MA: Lexington Books, 1982, 97-99.

(B24) Book note: Bruce J. West (Ed.), Mathematical Models as a Tool for the Social Sciences. 1982. Social Sciences Quarterly, 63:610-611.

(B25) Book review: Political geography. 1982. American Political Science Review, 76(4):883-885.

(B26) Abstract: Measuring the political consequences of electoral laws. 1983. Mathematical Social Sciences, 4(2):184-186.

(B27) Comment: Models of voter turnout: A brief idiosyncratic review. 1983. Public Choice, 41: 55-61.

(B28) Advice to the expert witness in court. 1984. PS (Winter): 60-61.

(B29) Should you brush your on November 6, 1984? 1984. PS (Summer): 577-580. (Reprinted in Sigelman et al. (Eds.), The Wit and Humor of Political Science. APSA, 2010.)

BOOK NOTES, REVIEWS AND COMMUNICATIONS (in print)

(B30) Introduction to minisymposium: Political gerrymandering: Badham v. Eu, Political science goes to court. 1985. PS (Summer): 538-543.

(B31) Grofman Declarations in Badham v. Eu (excerpts). 1985. PS (Summer 544-549, 573-574.

(B32) Expert vs. expert: Lessons from Badham v. Eu. 1985. PS (Summer): 576-581.

(B33) Book review: Reasonable methods for aggregating preferences, a review of Steven J. Brams and Peter C. Fishburn Approval Voting. 1985. Journal of Mathematical Psychology, 29: 128-132.

(B34) Reflections on academia. 1986. PS (Winter): 57-61.(Reprinted in Sigelman et al. (Eds.), The Wit and Humor of Political Science. APSA, 2010.)

(B35) Everything you always wanted to know about parliamentary procedure in an academic senate and were afraid to ask. 1986. PS (1986): 661-668.

(B36) Book note: Gunnar Boalt, The Political Process. 1986. Contemporary Sociology, 15(3):469.

(B37) Book review: Michael Dummett, Voting Procedures. 1986. Contemporary Sociology, 15(4):637-638.

(B38) Biographical entry: Duncan Black. The New Palgrave: A Dictionary of Economics. 1987. New York: Stockton Press, 250-251. (Reprinted in the 2nd edition: Steven Durlauf and Lawrence Blume, Eds., 2007.)

(B39) Biographical entry: Lewis Carroll. The New Palgrave: A Dictionary of Economics. 1987. New York: Stockton Press, 371-372.

(B40) Book review: Schmuel Nitzan and Jacob Paroush, Collective Decision-Making: An Economic Outlook. 1987. Journal of Economic Behavior and Organization, 168-170.

(B41) Grofman, Bernard and Michael Migalski. 1988. The return of the native: The supply elasticity of the American Indian population, 1950-1980. Public Choice,57: 85-88.

(B42) The minimax blame rule for voter choice: Help for the undecided voter on November 8, 1988. 1988. PS (Summer):639-640. .(Reprinted in Sigelman et al. (Eds.), The Wit and Humor of Political Science. APSA, 2010.)

(B43) Book note: Manfred Holler (Ed.), The logic of multi-party systems. 1988. Political Geography Quarterly, 7(3):300-301.

(B44) Book note: Michael Hechter, Principles of Group Solidarity. 1989. American Political Science Review 83(2):323-324.

BOOK NOTES, REVIEWS AND COMMUNICATIONS (in print)

(B45) Pool, Jonathan and Bernard Grofman. 1989. Linguistic artificiality and cognitive competence. In Klaus Schubert (ed.), Interlinguistics: Aspects of the Science of Planned Languages. Berlin: Mouton de Gruyter, 145-156.

(B46) Uncle Wuffle's advice to the advanced graduate student. 1989. PS (December): 838-839.

(B47) Feld, Scott L. and Bernard Grofman. 1990. A theorem connecting Shapley-Owen power scores and the radius of the yolk in two dimensions. Social Choice and Welfare, 7:71-74.

(B48) Hofeller, Thomas and Bernard Grofman. 1990. Comparing the compactness of California congressional districts under three different plans, 1980, 1982 and 1984. In Bernard Grofman (ed.), Political Gerrymandering and the Courts. NY: Agathon Press, 281-288.

(B49) Kernell, Samuel and Bernard Grofman. 1990. Determining the predictability of partisan voting patterns in California elections, 1978-1984. In Bernard Grofman (ed.), Political Gerrymandering and the Courts. NY: Agathon Press, 289-295.

(B50) Book review: Edward Carmines and James Stimson, Issue Evolution. 1990. International Journal of Public Opinion Research, 2(2):185-190.

(B51) Rejoinder: Straw men and stray bullets, a reply to Bullock. 1991. Social Science Quarterly, 72(4):840-843.

(B52) Grofman, Bernard. 1991. Questions of Electoral Fairness (translated into Japanese by Kyoji Wakata) in Nomp No. 2, Kansai University Institute of Legal Studies, Osaka, Japan, 19-24.

(B53) Grofman, Bernard and Chandler Davidson. 1992. Editors' Introduction: Issues and controversies in voting rights. In Bernard Grofman and Chandler Davidson (eds.), Controversies in Minority Voting: A 25 Year Perspective on the Voting Rights Act of 1965. Washington, D.C. The Brookings Institution, 1-3.

(B54) Grofman, Bernard and Davidson, Chandler. Comment on "The study of race, history, and politics." CLIO (Newsletter, American Political Science Association Section on Politics & History), Fall/Winter, 1992/1993, 4-5.

(B55) Zimmerman, Joseph F. and Bernard Grofman. 1992. In Memoriam: Leon Weaver. PS, 25(1):97.

(B56) Grofman, Bernard. 1992. A corollary to the third axiom of general semantics. Journal of Theoretical Politics, 4(2):238-240.

(B57) Grofman, Bernard. 1992. Book note: Laver and Schofield, Coalitions, Social Choice and Welfare, 265-266

BOOK NOTES, REVIEWS AND COMMUNICATIONS (in print) (cont.)

(B58) Grofman, Bernard. 1993. Is turnout the paradox that ate rational choice theory? In Bernard Grofman (ed.), Information, Participation and Choice: `An Economic Theory of Democracy' in Perspective. Ann Arbor, Michigan: University of Michigan Press, 93-103.

(B59) Grofman, Bernard. 1993. On the gentle art of rational choice bashing. In Bernard Grofman (ed.) Information, Participation and Choice: `An Economic Theory of Democracy' in Perspective. Ann Arbor, Michigan: University of Michigan Press, 239-242.

(B60) Grofman, Bernard. 1993. Advice to the Assistant Professor, PS (March):89-90.

(B61) Grofman, Bernard. The political economy of the automobile - Four approaches. Journal of Theoretical Politics, Vol. 5, No 3, (July, 1993): 409-412. .(Reprinted in Sigelman et al. (Eds.), The Wit and Humor of Political Science. APSA, 2010.)

(B62) Grofman, Bernard. 1993. Throwing darts at double regression and missing the target. Social Science Quarterly, 74(3):478-487.

(B63) Grofman, Bernard. 1993. Lessons of Athenian democracy: Editor's Introduction, The 2500th Anniversary of Democracy. PS, (September): 471-474.

(B64) Grofman, Bernard. 1994. Book review. John Craven, Social Choice: A Framework for Collective Decisions and Individual Judgements.Ethics, 104(2):430-431.

(B65) Grofman, Bernard. 1994. Book note: Geoffrey Brennan and Loren Lomansky, Democracy and Decision: The Pure Theory of Electoral Preference. American Political Science Review, 88(2):439-440.

(B66) Grofman, Bernard. 1995. Anthony Downs. In S.M. Lipset et al. (eds.), Encyclopedia of Democracy, Washington D. C.: Congressional Quarterly Books, 378-380.

(B67) Grofman, Bernard. 1995. Districting. In S.M. Lipset et al. (eds.), Encyclopedia of Democracy, Washington D. C.: Congressional Quarterly Books, 367-372.

(B68) Grofman, Bernard. 1995. Shaw v. Reno and the Future of Voting Rights PS (March): 27-36.

(B69) Davidson, Chandler and Bernard Grofman. 1996. Letter to the Editor in rebuttal to Carol Swain. Chronicle of Higher Education, (November):10.

(B70) Grofman, Bernard. 1996. Introduction to the Term Limits Debate: Hypotheses in Search of Data. In Bernard Grofman (Ed.) Legislative Term Limits: Public Choice Perspectives. Boston: Kluwer Academic Publishers, 1-18.

BOOK NOTES, REVIEWS AND COMMUNICATIONS (in print)

(B71) Grofman, Bernard and Christian Collet. 1997. Why Democrats shouldn't vote (with acknowledgments to Robert Erikson). Journal of Theoretical Politics, 9(1):137-140. (Reprinted in Sigelman et al. (Eds.), The Wit and Humor of Political Science. APSA, 2010.)

(B72) Brunell, Thomas, Bernard Grofman. 1997. The 1992 and 1996 presidential elections: Whatever happened to the Republican electoral college lock? Presidential Studies Quarterly. 27(1):134-138.

(B73) Merrill, Samuel and Bernard Grofman. 1997. Response to Macdonald and Rabinowitz. Journal of Theoretical Politics, 9(1):57-60.

(B74) Grofman, Bernard, Thomas Brunell and William Koetzle. 1997. Death, where is thy sting? The Senate as a Ponce (de Leon) scheme. PS, 1:58-59. (Reprinted in Journal of Irreproducible Results, 1999, 44(5): 25-26. (Reprinted n Sigelman et al. (Eds.), The Wit and Humor of Political Science. APSA.)

(B75) Grofman, Bernard and Shaun Bowler. 1997. STV in the family of electoral systems. Representation, 34(1):43-47.

(B76) Grofman, Bernard. 1997. Book Note: Duncan Black. "Formal contributions to the theory of public choice." Public Choice, 7:1-3.

(B77) Grofman, Bernard. 1998. Rebuttal to Wuffle and Collet's supposedly irrefutable evidence that higher turnout benefits Republicans. Journal of Theoretical Politics 10(2):251-255

(B78) Grofman, Bernard Sung-Chull Lee, Edwin Winckler, and Brian Woodall. 1999. Introduction. In Bernard Grofman, Sung-Chull Lee, Edwin Winckler, and Brian Woodall, eds. Elections in Japan, Korea, and Taiwan under the Single Non-Transferable Vote: The Comparative Study of an Embedded Institution. Ann Arbor, MI: University of Michigan Press.

(B79) Grofman, Bernard. 1999. Credo of a "reasonable choice" modeler. Journal of Theoretical Politics, 11(2): 203-206.

(B80) Grofman, Bernard. 2000. Editor's Introduction. In Bernard Grofman (ed.) Legacies of the 1964 Civil Rights Act. Charlottesville: University Press of Virginia, 1-6.

(B81) Grofman, Bernard. 2000. Electoral districting. In Leonard W. Levy, Kenneth L. Karst and Adam Winkler (eds.) Encyclopedia of the American Constitution, New York: Macmillan Publishing Co.

BOOK NOTES, REVIEWS AND COMMUNICATIONS (in print)

(B93) Grofman, Bernard. 2004. Black's single-peakedness condition. In Charles Rowley and Friedrich Schneider (eds.), Encyclopedia of Public Choice, 43-45.

(B94) Grofman, Bernard. 2004. Comment on Gordon Tullock's 'A curmudgeon's view of the EMU.' In Guiseppe Eusepi and Friedrich Schneider (eds.) Changing Institutions in the European Union: A Public Choice Perspective. New York: Edward Elgar.

(B95) Grofman, Bernard. 2004. The prospects of electoral reform (foreword). In Josep Colomer (ed.), Handbook of Electoral System Choice. New York: Palgrave-Macmillan, pp. pp. xi-xx.

(B96) Grofman, Bernard. 2005. Ph.D.s Without Borders? Drawing Subdisciplinary Boundaries in Political Science. APSA Comparative Politics Section Newsletter, 16(1): 8-11.

(B97) Grofman, Bernard. 2005. Comparisons among electoral systems: Distinguishing between localism and candidate-centered politics. Electoral Studies, 24(4): 735-740.

(B98) Grofman, Bernard. 2005. Contribution and Spending Limits for Initiatives or Other Ballot Propositions: What Evidence is Needed to Justify a Particular Regulatory Regime? Southern California Law Review, 78: 927-937.

(B99) Gray, Mark M. and Bernard Grofman. 2005. Vindicating Anthony Downs. PS, 38(4): 737-740. (Reprinted in Sigelman et al. (Eds.), The Wit and Humor of Political Science. APSA, 2010.)

(B100) Grofman, Bernard and Michael Lewis-Beck. 2005. "Elections Under the French Double-Ballot System: Guest Editors' Introduction to the Minisymposium." French Politics, 3(2):93-97

(B101) Fraenkel, Jonathan and Bernard Grofman. 2006. "The Failure of the Alternative Vote as a Tool for Promoting Ethnic Moderation in Fiji." Comparative Political Studies, 39(5):663-666.

(B102) Uncle Wuffle's Advice on Job Talks. 2006. PS: Political Science and Politics (2006), 39: 883-886.

(B103) Grofman, Bernard and Lisa Handley. 2009. Editors' Introduction. In Handley, Lisa and Bernard Grofman (Eds). Redistricting in Comparative Perspective. Oxford: Oxford University Press, 3-8.

BOOK NOTES, REVIEWS AND COMMUNICATIONS (in print)

(B104) Anthony Downs. 2008. In Charles Rowley and Friedrich Schneider (Eds.) Readings in Public Choice and Constitutional Political Economy. Springer Verlag. 91-96.

(B104) Kenneth Arrow. 2008. In Charles Rowley and Friedrich Schneider (Eds.) Readings in Public Choice and Constitutional Political Economy. Springer Verlag. 85-90.

(B105) Fraenkel, Jon and Bernard Grofman. Electoral Engineering, Social Clevages and Democracy. Public Choice, forthcoming

(B106) Grofman, Bernard, Shaun Bowler and Andre Blais. 2008. Editors' Introduction. In Grofman, Bernard, Shaun Bowler, and Andre Blais (Eds.) Duverger's Law in Canada, India, the U.S. and the U.K. Berlin: Springer Verlag. XXX-XXX.

(B107) Grofman, Bernard, Shaun Bowler and Andre Blais. 2008. Guest Editors' Introduction to the Minisymposium on Runoff Elections. Electoral Studies, XXX-XXX.

(B108) Grofman, Bernard. 2010. Reflections on Prediction. In Sigelman et al. (Eds.), The Wit and Humor of Political Science. American Political Science Association, XXX-XXX

(B109) Grofman, Bernard. 2010. Voter Advice in the Presidential Election of 2008: A Guide for the Perplexed. In Sigelman et al. (Eds.) The Wit and Humor of Political Science, APSA, XXX-XXX

(B110) Editors' Introduction. 2011. In Giannetti, Daniela and Bernard Grofman (Eds.) A Natural Experiment on Electoral Law Reform: Evaluating the Long Run Consequences of 1990s Electoral Reform in Italy and Japan. Springer, XXX-XXX

(B111) Editors' Introduction. 2011. In Dolez, Bernard, Bernard Grofman and Annie Laurent Eds.) *In Situ* and Laboratory Experiments on Electoral Law Reform: French Presidential Elections. Springer, XXX-XXX

(B112) Editors' Introduction. 2011. In Sigelman, Lee, Kenneth Newton, Kenneth J. Meier, and Bernard Grofman (Eds.) The Wit and Humor of Political Science. American Political Science Association, XXX-XXX.

(B113) Editors' Introduction. 2011. In Dolez, Bernard, Bernard Grofman and Annie Laurent (Eds.) Mini-symposium "The Legacy of Maurice Duverger" (translated into French). Revue Internationale Politiques Comparées, XXX-XXX.

(B114) Grofman, Bernard, Craig L. Brians and Christine Coulter. Forthcoming. The Neglected Importance of Temperature: Implications for State Level Voter Turnout and for Life Expectancy. PS, XXX-XXX

SEMIPROFESSIONAL PUBLICATIONS (in print)

(S1) Grofman, Bernard. 1971. Voting tactics: A neglected study, parts I, II. Parliamentary Journal, 12(3):3-15; 12(4):19-26.

(S2) Grofman, Bernard and Howard Scarrow. 1977. Who knows the score on the board of supervisors? 1977. Opinion-Editorial Page, Newsday, March 6, 1977.

(S3) Grofman, Bernard. 1979. My years as parliamentarian to the United States National Student Association. Parliamentary Journal, 20:18-21.

(S4) Grofman, Bernard and Howard Scarrow. 1981. The riddle of apportionment: Equality of what? National Civic Review, 70(5):242-254.

(S5) Grofman, Bernard. 1984. The Democratic party is alive and well. Society, 18-21.

(S6) Baker, Gordon E. and Bernard Grofman. 1986. Court should plunge deeper into gerrymandering thicket. Opinion-Editorial Page, Los Angeles Times, July 15.

(S7) Baker, Gordon E. and Bernard Grofman. 1986. California's gerrymander and the U.S. Supreme Court. Opinion-Editorial Page, The Sacramento Bee, July 30.

(S8) Grofman, Bernard. 1987. Should city councils be elected by district? PRO. Western Cities Magazine, 4:30-31.

(S9) Baker, Gordon E. and Bernard Grofman. 1988. What now for gerrymandering? Opinion-Editorial Page, The San Diego Union, November 18.

(S10) Loewen, James W. and Bernard Grofman. 1989. Comment: Recent developments in methods used in voting rights litigation. Urban Lawyer 21(3):589-604.

(S11) Grofman, Bernard. 1991. Voting rights, voting wrongs: The legacy of Baker v. Carr. A report of the Twentieth Century Fund. New York: Priority Press (distributed through the Brookings Institution), 1991.

(S12) Grofman, Bernard. 1991. Voting rights may be an issue in Santa Ana. Opinion-Editorial Page, Los Angeles Times (Orange County Edition), August 5.

(S13) Grofman, Bernard. 1991. Race and redistricting: No one is using the Voting Rights Act to "whiten" majority districts. Opinion-Editorial Page, Washington Post, October 21.

(S14) Grofman, Bernard. 1993. High court ruling won't doom racial gerrymandering. Opinion-Editorial Page, Chicago Tribune, July 9.

SEMIPROFESSIONAL PUBLICATIONS (in print) (cont.)

(S15) Grofman, Bernard. 1993. The Denny beating trial: justice in the balance. Opinion-Editorial Page, Chicago Tribune, November 3.

(S16) Reynolds, Andrew S. and Bernard N. Grofman. 1994. Everyone loses in South Africa boycott. Opinion-Editorial Page, Chicago Tribune, March 28.

(S17) Grofman, Bernard. 1994. An introduction to racial bloc voting analysis. With an annotated select bibliography on racial bloc voting and related topics. Atlanta, GA: Southern Regional Council.

OTHER PUBLICATIONS

(O1) Chicago. In David Glazier (Ed.), Student Travel in America. New York: Pyramid Publication, 1968. (Under pseudonym.)

(O2) Chicago: Hyde Park and the University of Chicago, the Loop and Near-North. In Where the Fun is: East of the Mississippi. NY: Simon and Schuster, 1969. (Under pseudonym.)

SOCIAL SCIENCES WORKING PAPERS AND RESEARCH REPORTS

(W1) Note: Confessions of a mad modeler, Research Report R6, School of Social Sciences, University of California, June 1978.

(W2) Note: The paradox of voting in a faculty appointment decision (with Steven Brown). Research Report R6, School of Social Sciences, University of California, Irvine, June 1978.

WEBSITE POSTINGS

(W1) A Comment on Lowi and Calise. Posted in June, 1999, on the website of the IPSA Research Committee on Conceptual and Terminological Analysis: http://www2.hawaii.edu/%7Efredr/grofman.htm

(W2) "Questions and Answers about Motor Voter: An Important Reform That Is Not Just for Democrats" Posted in 1995, on the website of the Center for Voting and Democracy http://www.fairvote.org/reports/1995/chp6/grofman.html

(W3) Grofman, Bernard. 2006. "This Way to the Egress and Other Reflections on Partisan Gerrymanding Claims in Light of LULAC v. Perry." Michigan Law Review on line: http://students.law.umich.edu/mlr/firstimpressions/vol105/grofman.pdf

CURRENT RESEARCH

Much of my current research is in behavioral social choice, linking mathematical models of group and individual decision making to empirical evidence, with a focus on electoral behavior and voter choice and issues connected with representation and redistricting, political parties and coalitions. I also have strong side interests in individual and group information processing; political propaganda, particularly political cartooning and satire; and in law and social science, particularly in the domain of civil rights; as well as in using computers as a teaching aid; and in statistical training for citizen literacy.

CONFERENCE GRANTS

2011-12 Collaborative Workshops on Ethnic Politics and Electoral Democracy (NCCR Democracy, University of Zurich, $27,00, with Daniel Bochsler)

2008 Conference on Long Term Consequences of Electoral Rules Change: Comparing Italy and Japan. Bologna Italy, November 28-29, 2008. (UCI Center for the Study of Democracy supplemental funding $7,500).

2006 Conference on Plurality and Runoff Methods in Canada, United States and United Kingdom (Canadian Embassy, $5,000, UCI Center for the Study of Democracy supplemental funding, $5,000; with Shaun Bowler), February 17-20.

2005 Conference on Spatial Social Choice, December 9-11 (UCI Institute for Mathematical Behavioral Sciences, and the UCI Center for the Study of Democracy; with Donald Saari.)

2004 2004 Conference on Pluralitarian/Majoritarian Electoral Systems (Borchard Foundation, $25,000, with $2,500 supplemental funding from the UCI Center for the Study of Democracy; with James Adams and Shaun Bowler).

2000-01 Conference on Comparative Redistricting (National Science Foundation Program in Political Science, $22,000, with $5,000 supplemental funding from the UCI Center for the Study of Democracy, the UCI Office of the Vice Chancellor for Research, and the School of Social Sciences; with Lisa Handley).

1998 Conference on Mixed Electoral Systems that Emulate the German Model (UC Center for the German and European Studies, $10,000, and $5000 supplemental funding from the UCI Center for the Study of Democracy, with Matthew Shugart and Martin Wattenberg)

1997 Conference on Electoral and Party Systems in Scandinavia: Origins and Evolution (UCI Center for the Study of Democracy, $11,000, with Arend Lijphart).

CONFERENCE GRANTS (cont.)

1996 Conference on Elections in Australia, Ireland and Malta under the Single Transferable Vote (UCI Center for the Study of Democracy, $11,000, with Shaun Bowler).

1994-95 Conference on the Civil Rights Act of 1964 in Thirty Year Perspective. Joyce Foundation (#446740-49317, $18,500 with additional funding by the Federal Judicial Center).

1991-92 Conference on Japanese, Korean and U.S. Election Practices in Comparative Perspective (UC Pacific RimResearch Program, $14,700,with Sung Chull Lee, Rein Taagepera and Brian Woodall,).

1991-92 Workshops on Politics and the Democratization Process, (National Science Foundation, Political Science Program SES# 91-13984 ($42,000, with Russell Dalton and Harry Eckstein).

1989-90 A Conference on the Voting Rights Act: A Twenty-five Year Perspective (Rockefeller Foundation, $50,000, with Thomas Mann and Chandler Davidson, under the auspices of The Brookings Institution).

1988 A Conference on "The Calculus of Consent": A Twenty-five Year Perspective (Liberty Fund, with Donald Wittman).

1982 A Conference on Information Pooling. National Science Foundation, Political Science Program (NSF #SES 82-09109, $26,300, with Guillermo Owen and Scott L. Feld).

1980 A Conference on Representation and Apportionment Issues in the 1980s. National Science Foundation, Political Science Program (NSF #SES 79-26813, $20,200, with Arend Lijphart, Robert McKay, and Howard Scarrow; additional $8,000 funding provided by the American Bar Association)

1979 A Conference on Voter Turnout. National Science Foundation, Political Science Program (NSF SOC 78-19433, $14,400, with Richard Brody and Herbert Weisberg).

CONFERENCE PAPERS (unpublished)

(C34) Feld, Scott L. and Bernard Grofman. Distinguishing between ideological and judgmental bases of transitive majority choice. Prepared for delivery at the Annual Meeting of the American Sociological Association, Chicago, August 1992; presented in revised form at the Annual Meeting of the Public Choice Society, Long Beach, California, March 24-26, 1995.

(C37) Grofman, Bernard. What is a constitution? Presented at U.C. Irvine conference on "Constitutional Design," June 1993.

(C38) Reynolds, Andrew S. and Bernard Grofman. Choosing an electoral system for the new South Africa: the main proposals. Presented at the Conference on Electoral Reform and Democratization, Columbia Institute for Western European Studies, Columbia University, April 18-19, 1994.

(C42) Grofman, Bernard. Are voting rights special? Presented at the Conference on the Civil Rights Act of 1964 in Perspective, Washington D.C. Federal Judicial Center, November 11-12, 1994.

(C43) Grofman, Bernard, Christian Collet and Robert Griffin. Does a rising tide lift all challengers? Rethinking the partisan implications of higher turnout. Prepared for delivery at the Annual Meeting of the Public Choice Society, Long Beach, California, March 24-26, 1995.

(C49) Grofman, Bernard and H. W. Wales. Ideal of the impartial jury. Prepared for delivery at the Conference of the Role of the Jury in a Democratic society. Georgetown University Law Center, October 29, 1995.

(C51) Grofman, Bernard, Michael McDonald, William Koetzle, and Thomas Brunell. Strategic policy balancing. Presented at the Conference on Strategy and Politics, Center for the Study of Collective Choice, University of Maryland, College Park, MD, April 12, 1996.

(C54) Grofman, Bernard, William Koetzle and Thomas Brunell. Rethinking the link between district diversity and electoral competitiveness. Prepared for delivery at the Annual Meeting of the American Political Science Association, Washington, D. C., August 29-September 1, 1997.

(C55) Caul, Miki, Rein Taagepera, Bernard Grofman. Determining the number of parties in stable democracies: Social heterogeneity and electoral institutions. Prepared for delivery at the Annual Meeting of the Western Political Science Association, Los Angeles, CA, March 9-21, 1998.

CONFERENCE PAPERS (unpublished) (cont.)

(C58) McDonald, Michael and Bernard Grofman. Redistricting and the polarization of the House of Representatives. Prepared for delivery at the Annual Meeting of the Midwest Political Science Association Conference, Chicago, April 15-16. (A previous version of this paper was presented at the 1999 Western Political Science Association Conference, Seattle, March 25-27, 1999.)

(C59) Commisso, Ellen and Bernard Grofman. Liberty, equality, fraternity: Tripolarity, cycles and the dynamics of party competition in post-socialist Eastern Europe. Presented at the 1999 Annual Meeting of the American Political Science Association, Atlanta, Georgia.

(C65) Feld, Scott L. and Bernard Grofman. "Issue and electoral success: The paradox of nonmonotonicity." Paper presented at the Public Choice Society Annual Meeting, March 9-11, 2001, San Antonio, TX; presented in revised form as "Theoretical and empirical findings concerning candidates' optimal choices of issue dimensions: Implications for U.S. presidential elections." Paper presented at the Public Choice Society Annual Meeting, March 22-24, 2002, San Diego, CA; presented in revised form as "Stuck in space: The neglected importance of issue salience for political competition." Paper presented at the European Public Choice Society Annual Meeting, April 25-28, 2003, Aarhus, Denmark; presented in revised form at the UCI Institute for Behavioral Mathematical Sciences "Conference on Spatial Voting," December 10-11, 2005; presented in revised form as "Putting a Spin on It: Geometric Insights into How Candidates with Seemingly Losing Positions Can Still Win." Paper presented in further revised form at the Annual Meeting of the American Sociological Association, August, 2007, New York, New York.

(C67) Gray, Mark and Bernard Grofman. Several (likely to be contentious) claims about the nature and prerequisites of democracy." Prepared for delivery at the Second London School of Economics Workshop on "Freedom and Democracy," London, June 15, 2001.

(C72) Grofman, Bernard and Samuel Merrill. What does it mean to offer a "solution" to the problem of ecological inference? Paper presented at the Conference on New Advances in Ecological Inference, June 17-18, 2002, Cambridge MA.

(C82) Grofman, Bernard. Statistics and Social Choice: Connections Between Sports and Politics." Paper presented at the University of California, Irvine Institute for Mathematical Sciences Conference on Decisions, Sports, and Statistics" December 4, 2004.

(C88) Wayman, Frank, Bernard Grofman and Matt Barreto. "Party ID in the US in Longitudinal Perspective." Presented at the European Consortium for Political Research Conference, Nicosia Cyprus, April 27, 2006.

CONFERENCE PAPERS (unpublished) (cont.)

(C94) Gray, Mark, Paul Perl and Bernard Grofman. "More Than an Ocean Apart: The Americas and the College of Cardinals 1903-2005." Prepared for delivery at the Society for the Scientific Study of Religion conference, Portland, Oregon. October 19- 22, 2006.

(C96) Grofman, Bernard, James Fowler, Natalie Masuoka and Scott Feld. "Social Choice Approaches to Social Exchange Networks." Presented at a Colloquium of the Netherlands Group in Social Choice ,Tilburg University, April 5, 2007. Also presented as a colloquium at the University of Paris, I, June 5, 2007.

(C97) Grofman, Bernard. "French Runoff Elections in Comparative Perspective." Presented at a conference on French Legislative Elections organized by the Election Analysis Group of the French Political Science Association (in conjunction with CEVIPOF, Sciences-Po), June 10, 2007.

(C98) Schneider, Carsten Q. and Bernard Grofman. "Visual Presentation of Fuzzy QCA Data." Paper presented at panel on "Political Methodology," European Consortium for Political Research, Pisa, Italy, September 6-8, 2007. An earlier version of this paper was presented at the International Conference on Comparative Social Sciences, Sophia University, Tokyo, Japan, July 15-16, 2006, under the title "It Might Look Like a Regression Equation...but It Is Not! An Intuitive Approach to the Presentation of QCA and fs/QCA Results."

(C101) Brunell, Thomas, Grofman, Bernard and Samuel Merrill, III. "Putting Critical Elections in the U.S. House of Representative in Historical Context, 1954-2006." Prepared for delivery at the Annual Public Choice Meeting in Las Vegas, Nevada March 6 through March 8, 2009. Presented at the Midwest Political Science Association annual meeting, April 2-5, 2009, to be held in Chicago, IL.

(C102) Winer, Stanley, Larry Kenny and Bernard Grofman. "Explaining Variation in the Degree of Electoral Competition in a Mature Democracy: U.S. Senate Elections 1922-2004. American Political Science Annual Meeting, San Francisco, August, 2009; an earlier version was presented at the Annual Meeting of the Public Choice Society, San Antonio, March, 2007.

(C104) Grofman, Bernard. "Voting as Habit." Presented at the Annual Meeting of the Public Choice Society, Monterey, California, March, 2010.

(C105) Feld, Scott L. and Bernard Grofman. "Creating and Maintaining a Scale-Free Core-Periphery Fractal Network" Annual Meeting of the International Society for Social Networks. Riva del Garda, Italy, June 30-July 4, 2010.

(C106) Samuel Merrill, Bernard Grofman and Thomas Brunell. "Dynamics of Party Differentiation." Paper presented at the Annual Meeting of the American Political Science Association, Washington, D.C. August, 2010.

CONFERENCE PAPERS (unpublished) (cont.)

(C107) Bernard Grofman. "Voting Rights and Minority Representation in the United States in Comparative Perspective." Presented at a conference on The impact of Electoral Institutions and Political Parties, University of Manchester, Manchester England, September 20, 2010.

(C108) Daniela Giannetti and Bernard Grofman. "Studying Electoral Engineering via a Double-Barrelled Natural Experiment: Comparing the Long Run Consequences of 1990s Electoral Reform in Italy and Japan." Presented at the Biennial Fall Meeting of the European Consortium for Political Research, Reykjavik, Iceland, August 24-27, 2011.

(C109) Steven Ferris, Stanley Winer and Bernard Grofman. "The Impact of Keynesianism and Central Banking Practices on Canadian Budget Deficits." Presented at the Conference on New Perspectives on Public Debt, European Center for the Study of Public Choice. Sapienza University of Rome, September 26-28, 2011. Presented in slightly revised form at the World Congress of the Public Choice Societies, Miami, March 8-12, 2012.

OTHER CONFERENCE PARTICIPATION

Invited speaker, Federal Judicial Center Conference for Federal Judges of the 6th and 8th Circuits, Orlando, Florida, January 13, 1992.

Chair, panel on "Issues and Controversies in Legislative and Congressional Redistricting." Annual Meeting of the Western Political Science Association, San Francisco, March 19-21, 1992.

Participant, National Endowment for Humanities Workshop on Athenian Democracy, UC Santa Cruz, June 21-July 30, 1992.

Chair, "Roundtable on Ethnic and Linguistic Conflict and the Art of Constitutional Design." Annual Meeting of the American Political Science Association, Chicago, September 3-6, 1992.

Invited speaker, Southern Regional Council "Conference on Voting Rights." Atlanta, October 1-3, 1992.

Invited panelist, "Roundtable on Uses of Operations Research in the Social Sciences." Annual Meeting of ORSA-TIMS, San Francisco, November 2-4, 1992.

Chair, panel on "Social Contract Theory," Conference on Democracy, Rationality and the Social Contract. Focused Research Project in Public Choice, University of California, Irvine, December 11-12, 1992.

Organizer, Conference on the Civil Rights Act of 1964 in Perspective, Washington D.C. Federal Judicial Center, November 11-12, 1994.

Discussant, panel on "Jury Decision-making." Annual Meeting of the Public Choice Society, Long Beach, California, March 24-26, 1995.

Invited participant, IGCC Conferences on "Ethnic Conflict," University of California, San Diego, May 11-12, 1994; Palm Springs, California, December 12, 1995.

Invited panelist. National Conference of State Legislatures Annual Meeting, Panel on "Redistricting Decisions of the Supreme Court." St Louis, Missouri, July 29-31, 1996.

Invited speaker. National Conference of State Legislatures. Special session on "Redistricting Issues." Seattle, Washington, April 3-5, 1998.

Invited panelist. National Conference of State Legislatures Annual Meeting, Panel on "Redistricting Issues," Chicago, July 14-17, 2000.

Roundtable participant. "The Changing Role of the Department of Justice in Redistricting" at the University of Houston Lanier Center for Public Policy Conference on "Census 200," December 8, 2000.

OTHER CONFERENCE PARTICIPATION (cont.)

Invited participant, University of Rome (La Sapienza) Conference on the Political Economy of the European Union, May 15-17, 2001.

Invited speaker, National Conference of State Legislatures Annual Meeting, Special Session on Redistricting, San Antonio, August 13, 2001.

Invited speaker, National Conference of State Legislatures Annual Meeting, Special Session on Redistricting, Denver, Colorado, July 24, 2002.

Invited participant and presenter, Conference on Political Culture, Representation and Electoral Systems in The Pacific sponsored by the University of the South Pacific, Port Vila, Vanuatu, July 10-12, 2004.

Invited speaker, Conference on Game Theory and Its Applications, Institute for Mathematical Behavioral Sciences and Center for Decision Analysis, University of California, Irvine, September 18, 2004 (paper entitled "Models of political coalition building")

Invited discussant, "Judging Transitional Justice" Conference, Center for the Study of Democracy, University of California, Irvine, October 30-31, 2004.

Invited discussant, "Conference on Direct Democracy," Co-sponsored by the UCI Center for the Study of Democracy, January 14-15, 2005.

Invited discussant, Graduate Student Conference on "Democracy and its Development: 1990-2005." UCI Center for the Study of Democracy, February 26, 2005.

Invited speaker, Marschak Conference at University of California, Los Angeles, June 10, 2005.

Panel Chair, "Party Formation Barriers and their Effect on Ethnic Party Building and Success in New Democracies." Annual meeting of the American Political Science Association, September 2, 2005

Invited Discussant, "Party Formation Barriers and their Effect on Ethnic Party Building and Success in New Democracies." Annual meeting of the American Political Science Association, September 2, 2005.

Invited Discussant, "Changing the Rules of the Game in New Democracies: Political Participation and Electoral Regime Change in Eastern Europe and Latin America." Annual meeting of the American Political Science Association, September 4, 2005.

Invited Discussant, symposium on "Protecting Democracy: Using Research to Inform the Voting Rights Reauthorization Debate." Chief Justice Earl Warren Institute on Race, Ethnicity and Diversity, sponsored by UC Berkeley and the Institute for Government Studies, UCB, Washington D.C., February 9, 2006.

Invited panellist, Voting Rights Conference "Voting Rights: Haven't they Already Overcome?" Duke University, Durham NC, April 7, 2006.

Invited discussant, "Workshop on Danish Local Elections." Department of Government, University of Aarhus, Sandberg, Denmark, August 10-12, 2006.

Invited discussant, "Modeling Law Locally." New York University School of Law, Center for Law Economics and Organization, October 21, 2006.

Invited discussant, Conference on "Predicting French Presidential Elections," Institute for Globalization and Economic Research (IRGEI) at the University of Paris, II, May 2, 2007.

Invited discussant, Conference on "French Presidential Elections" organized by the Election Analysis Group of the French Political Science Association (in conjunction with CEVIPOF, Sciences-Po), May 3, 2007.

Chair, panel on "Formal and Empirical Models of Voting and Elections." Annual Meeting of the Public Choice Society, San Antonio, March 7-8. 2008.

Invited roundtable participant, The Voting Rights Act and the Deconstruction of the Republic." Annual Meeting of the American Political Science Association, Boston, August 27-31, 2008.

Chair, Panel on Re-Examining Strategic Voting. Annual Meeting of the American Political Science Association, Boston, August 27-31, 2008.

Discussant, Annual Meeting of the Public Choice Society, Las Vegas, March 10-12. 2009.

Discussant, Annual Meeting of the American Political Science Association. Panel on "Electoral Engineering and Political Representation in Ethnically Divided Societies" Washington, D.C., August, 2008.

Discussant, Annual Meeting of the Public Choice Society, Monterey, California, March 12-14, 2010.

Discussant, "Franco-Italian Seminar on "Two Bloc Politics in France and Italy." Department of Political Science, University of Bologna, September 16-17, 2011.

Invited Discussant, Conference on "Revisiting Party Identification: American and European Perspectives." CISE (Center for Italian Electoral Studies), Department of Government, LUISS University, Rome, September 26-28, 2011.

INVITED COLLOQUIA

June 28, 2010	Colloquium. "French Two Round Electoral Politics:Is There a Model with Bite." CERAPS, University of Lille, II.
November 19 2010	Colloquium. "Confesssions of an Eclectic, Puzzle Loving, Reasonable Choice Modeler, and Occasional Popcorn Machine." Department of Political Science, University of Copenhagen, Denmark
November 28, 2009	Colloquium, "Models of Turnout" Institute for Governance and Economic Institutions (IRGEI), University of Paris, II
May, 2008.	Series of talks on electoral systems and models of party competition for Economics Ph.D students associated with the Institute for Globalization and Economic Research (IRGEI), University of Paris, II.
Feb. 5, 2008	Colloquium, "Electoral Systems and the Promotion of Effective Power-Sharing." Sawyer Seminar Series: Power-Sharing in Deeply Divided Places, Solomon Asch Center for the Study of Ethnic Conflict, University of Pennsylvania.
May-June 2007	Series of talks on electoral systems and models of party competition for Economics Ph.D. students associated with the Institute for Globalization and Economic Research (IREGEI), University of Paris, II.
June 4, 2007	Center for Analysis Group in Economic Theory (GATE), University of Lyon, II, June 4, 2007.
April 6, 2006	Joint colloquium, CSDP (Center for the Study of Democratic Politics) and LAPA (Law and Public Affairs), Princeton University
March 30, 2006	Political Science Department, Rice University, Houston, Texas.
July 29, 2004	Research School of Social Sciences, Australian National University Program in Economics & Social Ethics, Canberra, Australia
May 28, 2003	Department of Political Science, Pompeu Fabra University, Barcelona
May 26-27, 2003	Department of Economics, Pompeu Fabra University, Barcelona
May 22, 2003	Department of Economics, Autonomous University of Barcelona
May 2, 2003	Department of Political Science, University of Southern Denmark
April 15, 2003	Program in Decision Sciences, Carnegie-Mellon University

INVITED COLLOQUIA (cont.)

Nov. 10, 2002	Guest Professor, Course on Voting Rights at the New York University Law School
Sept. 20, 2002	Department of Economics, University of Tilburg, Netherlands
Sept.18, 2002	Department of Philosophy, University of Tilburg, Netherlands
Sept. 17-20, 2002	Series of lectures on Public Choice at the University of Tilburg under the auspices of the Dutch National Research Group on Social Science Theory
Sept. 13, 2002	Royal Military College of the Netherlands, Breda
July 9, 2002	Berlin Science Center (Wissenschaft Zentrum)
July 2, 2002	University of Hamburg, Hamburg, Germany
Oct. 15, 2001	Department of Government, Harvard University
June 14, 2001	Department of Political Science, Nuffield College, Oxford University
June 2, 2001	Department of Political Science, European University Institute, Fiesole, Italy
Dec. 6, 2000	Department of Political Science, University of Houston
Nov. 29, 2000	Department of Political Science, Duke University
May 3, 2000	Department of Political Science, University of California, San Diego
October, 1995	Department of Political Science, University of Houston
October, 1995	Department of Government, Georgetown University
July 27, 1994	Department of Economics, Fern Universitët Hagen, Germany
Sept 12-17,	Landsdowne Guest Speaker, Department of Political Science, University of 1992, Victoria, Canada
April 17, 1992	Department of Government, Harvard University
Nov 13, 1991	Department of Political Science, University of Calgary, Canada
Nov 7, 1991	Department of Political Science, University of Alberta, Canada
June 25, 1990	Department of Social Psychology, Tokyo University, Japan.

INVITED COLLOQUIA (cont.)

June 16, 1990 Institute of Legal Studies, Kansai University, Osaka, Japan

June 13, 1990 Department of Political Science, Kwansei Gakuin University, Nishinomiya, Japan.

May 6, 1990 Program in Ethics and Public Policy, University of Chicago.

May 4, 1990 Program in Law and Economics, Columbia University Law School

GRANTS FOR INSTRUCTIONAL DEVELOPMENT, COMPUTER LABS, AND GRADUATE FELLOWSHIP SUPPORT

1992-93	Grant from UCI Committee on Instructional Development to develop a new course: "Introduction to Computer Use in the Social Sciences" ($15,500)
1992	Small grant from the National Endowment for the Humanities to attend the NEH Summer Institute on "Athenian Democracy." ($3,250)
1992-94	Grant for graduate student support in Public Choice (Sarah Scaife Foundation, $50,000, with Amihai Glazer)
1993	Grant from the UC Center for German and European Studies, University of California, to develop a new course to be co-taught with Professor Pertti Pesonen (Finnish Academy)on comparative political participation ($10,000)
1994	Grant from the National Science Foundation to develop a computer lab for the technology enhanced teaching of under-graduate statistics ($55,497, with Judith Treas).
1995-99	Grant from the UC President's Office (IAPIF) to develop a long-distance learning course "The United States in Comparative Perspective." ($17,174, with Arend Lijphart.
1997	Grant from Instructional Improvement Fund (UCI Division of Undergraduate Education) to develop "Computer-Based Tutorials, and Self-Grading Homework Assignments for SS10A, Introduction to Statistics" ($5,000)
1999-00	Seed grant from UC Center for German and European Studies for graduate research support ($3,000)
2000	Grant from UCI Division of Undergraduate Education (Hewlett Foundation) for Problem-Based Learning materials for Economics 10C statistics course ($4,500)
2000-01	Seed grant from the UC Center for German and European Studies, University of California, for graduate research support ($3,000)
2004-5	Grant from Institute of European Studies to co-teach a graduate seminar with Prof. Giorgio Freddi (University of Bologna) ($12,000)
2004-5	Grant from University of California, MEXUS Program to supervise doctoral research ($12,000 to Matthew Barreto)

CURRICULAR MATERIALS (in print)

(CM1) Grofman, Bernard N. 1979. Note: Mo Fiorina's advice to children and other subordinates. Mathematics Magazine 52(5): 292-297.

(CM2) Grofman, Bernard N. 1982. Modeling jury verdicts. University Modules in Applied Mathematics.

(CM3) Grofman, Bernard N. 1982. The pure theory of elevators. Mathematics Magazine, 55(1): 30-37.

(CM4) Straffin, Philip and Bernard Grofman. 1984. Parliamentary coalitions: A tour of models. Mathematics Magazine 57(5): 259-274.

(CM5) Grofman, Bernard. 1990. Pig and proletariat: Animal Farm as history, San Jose Studies, 16: 5-39.

(CM6) Grofman, Bernard and Craig Brians. 1998. Class notes and exercises: computer-based research methods for the social sciences. New York: Longmans.

(CM7) Grofman, Bernard. 2000. A primer on racial bloc voting analysis. In Nathaniel Persily (ed.) The Real Y2K Problem: Census 2000 Data and Redistricting Technology. New York: The Brennan Center for Justice, New York University School of Law, 2000.

COURSES TAUGHT
Elections and Voter Choice
Computer-Based Research Methods in the Social Sciences (SS3A)
Introduction to Public Choice, I and II
The United States in Comparative Perspective
Representation and Redistricting
Elementary Statistics (S10A)
Statistics for Citizen Literacy (SS10B)
Statistics for Public Policy Analysis (SS10C)
The Federalist Papers and the Art of Constitutional Design
Law and Social Science
Models of Collective Decision Making
Introduction to Decision Analysis
Introduction to Research Design
Game Theory Applications in the Social Sciences
Small Group Behavior
Introduction to Mathematical Models in the Social Sciences
Coalition Theory
Political Propaganda and Satire
Comparative Public Policy
Advanced Quantitative Methods in Political Science I
Introductory Statistics for Political Science, I and II

EDITORIAL BOARDS

1980-83 Editorial Board, American Journal of Political Science
1983-85 Editorial Board, Law and Society Review
1986-88 Advisory Board, ,Society for Orwellian Studies
1987-89 Editorial Board, American Politics Quarterly
1989-91 Editorial Board, Political Analysis
1991- Editorial Board, Public Choice
1996- Editorial Board, Electoral Studies
1997-01 Editorial Board, Journal of Politics
1999-01 Member, Advisory Board, Encyclopedia of Public Choice
2001- Editorial Board, Election Law Journal
2001- Advisory Board, Rivista Italiana di Politiche Pubbliche (University of Bologna)
2006-09 Editorial Board, Canadian Journal of Political Science
2008-10 Editorial Board, Political Analysis
2008-11 International Advisory Committee, Centre for Voting and Parties, University of Copenhagen
2010-12 International Advisory Board, Homo Oeconomicus

OTHER REFEREEING

1972-82 Manuscript Review Board: Behavioral Science.
1975- Occasional referee: American Journal of Political Science; Theory and Decision; Public Choice.
1976- Occasional referee: Political Methodology; National Science Foundation, Political Science Program.
1977- Occasional referee; Journal of the American Statistical Association; Social Science Research).
1978- Occasional referee: Psychological Review; National Science Foundation, Law and Social Sciences Program; Journal of Personality and Social Psychology; European Journal of Social Psychology; Journal of Mathematical Sociology.
1979- Occasional referee: Social Networks; National Science Foundation, Applied Mathematics Program.
1980- Occasional referee: Law and Policy Quarterly; National Institute of Mental Health; American Political Science Review, National Science Foundation, Sociology Program; National Science Foundation, Economics Program; Journal of Conflict Resolution; Legislative Studies Quarterly.
1981- Occasional referee: American Mathematical Monthly, Decision Sciences, Economic Inquiry.
1982- Occasional referee: Social Science Quarterly;Sociological Methods and Research; Western Political Quarterly (now Political Research Quarterly), Guggenheim Foundation; National Science Foundation, Developmental and Social Psychology Program; National Science Foundation, Decision, Risk and Management Science Program.
1983- Occasional referee: Journal of Politics, Political Geography Quarterly (now Political Geography).

OTHER REFEREEING (cont.)

1984- Occasional referee: National Science Foundation, Information Systems Program; National Science Foundation, Program in Social Measurement and Analysis.
1986- Occasional referee: Review of Economic Studies.
1987- Occasional referee: British Journal of Political Science, Journal of Political Economy, Comparative Political Studies.
1988- Occasional referee: Social Choice and Welfare, Political Analysis, Polity.
1989- Occasional referee: National Science Foundation, Program in History and Philosophy of Science; Program in Political Science
1991- Occasional referee: Demography.
1992- Occasional referee: European Journal of Political Research.
1993- Occasional referee: Electoral Studies
1994- Occasional referee: Comparative Politics; Cambridge University Press
1994- Occasional referee: Urban Affairs Quarterly
1996- Occasional referee: Canadian Journal of Political Science
1997- Occasional referee: National Science Foundation, Program in Geography
1998- Occasional referee: Southeastern Political Review, Social Science History
1999- Occasional referee: European Journal of Political Economy
2003- Occasional referee, Society for Industrial and Applied Mathematics (SIAM)
2004- Occasional referee, Law and Society
2005- Occasional referee, European Union Politics, Scandinavian Political Studies Journal of Law, Economics & Organization
2008- Occasional referee, Austrian National Science Foundation
2009- Occasional referee, Econometrica

OTHER PROFESSIONAL SERVICE

Chair, 1982-83, Lippincott Prize Committee for book-length work in political theory, American Political Science Association.
Section Program Organizer, Panels on "Positive Theory," Annual Meeting of the American Political Science Association, Washington, D.C., August 1984.
Member, 1985-86, Working Group on Collective Choice Institutions, appointed by the Committee on Basic Research in the Behavioral and Social Sciences, National Research Council.
Member, Executive Committee, 1986-89, Section on Representation and Electoral Systems, American Political Science Association.
Chair, 1988-92, George Hallett Book Prize Award Committee, Section on Representation and Electoral Systems, American Political Science Association.
Section Program Co-organizer, Panels on "Political Organizations," Annual Meeting of the American Political Science Association, Sept. 1990.
Member, 1990-91, Lasswell Prize Committee, International Society of Political Psychology.
Member, 1995-96, Carey McWilliam Award for Journalists Committee, American Political Science Association.
Chair, 1995-96, Richard Fenno Prize Committee, Legislative Studies Section, American Political Science Association.
Member, 1998, Luebbert Book Award Committee, Comparative Politics Section, American Political Science Association.

OTHER PROFESSIONAL SERVICE (cont.)

Member, 2000-2001, Advisory Board, UCLA Center for Governance.
Member, 2001-2002, Comparative Politics Prize Committee, Sage Award for best paper in comparative politics at the American Political Science Association Annual Meeting.
Member, 2002, International Political Science Association Longley Prize Committee, Longley Award for best article published on Representation and Electoral Systems.
External Reviewer, Ten-year review, Department of Political Science, University of Bologna, November 27-29, 2003.
Member, 2007 Program Committee, First World Congress of Public Choice, Amsterdam, March 29-April 1.
Member, 2007 APSA Section on Representation and Electoral Systems, Weaver Award Committee for best paper in Representation and Electoral Systems section.
Member, 2007 APSA Heinz Eulau Award Committee for best paper in Perspectives on Politics
External Reviewer, Ph.D. Thesis of Annelise de Ridder, School of Business, University of Nijmegen, Netherland, May 2007.
External Reviewer, Ph.D. Thesis of Honorine Lescieux-Katir, Department of Economics, University of Paris, II, May 2010.
Member, 2010-11, George Hallett Book Prize Award Committee, Section on Representation and Electoral Systems, American Political Science Association

UNIVERSITY SERVICE, SYSTEMWIDE

2010-	Member, Administrative Advisory Board, University of California Center, Sacramento

UNIVERSITY SERVICE, UCI

1977-79	Member, University Committee on Lectures
1977-79	Faculty Advisor, UCI Chapter, Student Model United Nations
1983-84	Member, University Library Committee
1987-89	Member, University Privilege and Tenure Committee Hearing Panel
1988-89	Member, Tierney Chair Search Committee
1988-91	Member, University Committee on Rules and Jurisdictions
1991-92	Acting Chair, Focused Research Program in Public Choice
1994-96	Member, University Committee on Rules and Jurisdictions
1995-96	Member, Chancellor's Taskforce on Use of Educational Technology
1999-00	Co-Coordinator, Institute of Mathematical Behavioral Sciences, Colloquia
1999-05	Member, Executive Committee, Irvine Institute of Mathematical Behavioral Sciences
2000-01	Reviewer, UC Systemwide Multicampus Research Incentive Fund (MRIF)
2001-02	Member, UCI Search Committee for new Dean of Social Sciences
2002-05	Member, Executive Committee, Center for Decision Analysis

SERVICE TO THE SCHOOL OF SOCIAL SCIENCES, UCI

1978-79	Chair, Program in Politics and Society.
1979-89	Organizer, Program in Politics and Society Colloquium Series (one quarter per year).
1980-81	Special Schoolwide Selection Committee: Distinguished Student Scholars Program.
1981-82	Chair, School of Social Sciences Faculty.
1982-83	Acting Co-Chair, Program in Politics and Society (Spring Quarter).
1983-84	Political Science Graduate Student Adviser.
1988-89	Political Science Graduate Student Advise
1988-89	Chair, Recruitment Committee in Mathematical Political Science.
1988-91	Member, Recruitment Committee in Public Law.
1991-92	Chair, Committee for the Interdisciplinary Graduate Concentration in Public Choice.
1991-93	Member, Joint Recruitment Committee in African-American Studies and Political Science
1992-98	Member, Political Science Graduate Committee
1992-	Member, Committee for the Interdisciplinary Ph.D Concentration in Public Choice
1996-02	Member, Executive Committee, UCI Center for the Study of Democracy
1996-97	Chair, Recruitment Committee for Pacific Rim FTE in Political Science
1997-98	Coordinator, Political Science Graduate Admissions
1998-99	Member, Easton Prize Committee, Department of Political Science
1998-00	Member, Colloquium Committee, Institute for Mathematical Behavioral Science
1998-00	Member, Interdisciplinary Search Committee for positions in Mathematical Behavioral Sciences
1999-01	Member, Search Committee for position in Chicano/Latino Studies
1999-00	Coordinator, Political Science Graduate Admissions
1999-01	Member, School of Social Sciences Executive Committee
2001-02	Member, Interdisciplinary Search Committee for positions in Democratization and Democratic Transitions
2001-02	Member, Interdisciplinary Search Committee for positions in Mathematical Behavioral Science
2001-06	Member, UCI Center for the Study of Democracy Leadership Council
2001-06	Member, Executive Committee, Center for the Study of Democracy
2002-03	Coordinator, Political Science Graduate Admissions
2002-04	Chair, Interdisciplinary Search Committee for position in Democratization and Democratic Transitions
2005-06	Chair, Search Committee for Position in Public Law/Judicial Behavior
2005-07	Graduate Director, Fellows Program, Center for the Study of Democracy
2008-	Director, Center for the Study of Democracy
2011-	Member, Steering Committee, Experimental Social Science Laboratory, School of Social Sciences

Major Redistricting Cases in which Bernard Grofman Has
Participated as an Expert Witness or Court-Appointed Consultant

Consultant to	Case Name	Type
Republican Party of Colorado	Carstens v. Lamm, 543 F. Supp. 68 (D. Colorado, 1982)	Congress: failure of the legislature to act
Special Master, U.S. District Court, Southern District of New York	Flateau v. Anderson, 537 F. Supp. 257 (S.D. New York, 1982)	Congress and both houses of state legislatures: failure of legislature to act; minority voting rights.
Republican Party of Hawaii	Travis v. King, 552 F. Supp. 554; 552 F. Supp. 1200 (D. Hawaii, 1982)	State legislature: equal population
Democratic Party of Rhode Island and subsequently State of Rhode Island	Holmes v. Burns (Super. Ct., R.I. 1982) aff'd, No. 83-149 (R.I. S. Ct, April 10, 1984)	State house: minority vote dilution, compactness, communities of interest
Republican National Committee	Badham v. Eu, 721 F. 2d 1170 (D. Calif. 1983), dismissed for want of a federal claim, cert. denied	Congress: partisan gerrymandering
NAACP Legal Defense Fund	Gingles v. Edmisten, consol. with Pugh v. Brock, 590 F. Supp. 345 (E.D. North Carolina, 1984) heard sub nom. Thornburg v. Gingles, 106 S. Ct. 2752, 478 U.S. 30 (1986)	Multimember districts in the state legislature; Section 2 of the Voting Rights Act
U.S. Department of Justice	South Carolina v. U.S. (D.D.C.), 1984) settled out of court by preclearance of a new plan for South Carolina Senate	State Senate: Section 5 of the Voting Rights Act preclearance denial

Consultant to	Case Name	Type
State of Indiana	Bandemer v. Davis 603 F. Supp. 1479 (1984), (S.D. Indiana, 1983), reversed sub nom Davis v. Bandemer, 106 S. Ct. 2797, 106 U.S. 2797 (1986); initially consol. with Indiana Branches of the NAACP v. Orr 603 F. Supp. 1479 (1984) (S.D. Indiana, 1983)	State legislature: partisan gerrymandering, minority vote dilution
City of Boston	Latino Political Action Committee v. City of Boston, 609 F. Supp. 739 (D. Mass. 1985)	Boston City council: minority vote dilution
U.S. Department of Justice	Ketchum v. Byrne II (D. Illinois 1985), settled by consent decree	Chicago City Council: minority vote dilution
Mexican American Legal Defense and Education Fund	Gomez v. City of Watsonville (D. Calif., 1986), 863 F. 2nd 1407 (9th cir. 1988) cert. denied, 109 Sct. 1534 (1989)	Watsonville City Council: Section 2 of the Voting Rights Act
U.S. Department of Justice	U.S. v. City of Los Angeles (D. Calif., 1986), settled out of court by adoption of a new plan for L.A. City Council with an additional majority Hispanic seat	Los Angeles City Council: Section 2 of the Voting Rights Act
NAACP Legal Defense Fund	McGhee v. Granville County, No. 87-29-CIV-5) (E.D. North Carolina 2/5/88); 860 F. 2nd 110 (4th circuit 1988)	Granville County Board of Supervisors: Section 2 of the Voting Rights Act
U.S. Department of Justice	Garza v. County of Los Angeles Board of Supervisors 918 F. 2d 763 (9th cir. 1990)	County Board: Section 2 of the Voting Rights Act

Consultant to	Case Name	Type
Republican National Committee	Pope et al. v. Blue et al. 809 F. Supp. 392 (D. N.C, Western District, Charlotte Division, 1992)	Congressional redistricting in North Carolina: 14th Amendment
Republican Party of Wisconsin	Prosser et al. v. Election Board of State of Wisconsin 793 F. Supp. 859 (D.Wisc., 1992)	Wisconsin state legislative redistricting: Section 2 of the Voting Rights Act
State of North Carolina	Republican Party v. Martin 980 F2d 943 (4th Cir. 1992)	State-wide judicial elections in the State of North Carolina; partisan gerrymandering
Minority plaintiffs	Garcia v. City of Los Angeles, (D. Los Angeles, 1996)	City of Los Angeles Charter Commission: Section 2 of the Voting Rights Act
Republican Party of Wisconsin	Arrington et al. v. Elections Bd. of State of Wisconsin 173 F. Supp. 2d 856 U.S. (D. Wisconsin, 2002)	Wisconsin State legislative districting, Section 2 of the Voting Rights Act
Special Master, U.S. District Court, Southern District of New York	Rodriguez et al. v. Pataki et al., (S.D. N. Y., 2002)	Congress; failure of legislature to act; minority voting rights.
Special Master, US District Court, Georgia	Larios v. Cox 305 F Supp. 2d 1355 (N.D. GA 2004)	Georgia legislative districts; one person, one vote.

Majority-Minority District Summary
Exhibit B

	African American Assembly Districts			
	ACT 43 - BPOP	BVAP	Non-White POP	Non-White VAP
10	65.55%	61.79%	73.23%	68.63%
11	66.31%	61.94%	78.19%	71.84%
12	57.99%	51.48%	69.26%	61.29%
16	67.64%	61.34%	77.67%	70.76%
17	65.14%	61.33%	74.19%	69.13%
18	65.09%	60.43%	77.86%	72.08%
	Hispanic Assembly Districts			
	ACT 43 - HPOP	HVAP	Non-White POP	Non-White VAP
8	65.94%	60.52%	77.17%	70.53%
9	60.54%	54.03%	74.07%	66.74%

EXHIBIT
B

Majority-Minority District Summary
Exhibit C

African American Assembly Districts			
	Census Day		
	2010 - BVAP		
10	67.43%		
11	75.84%		
12	48.99%		
16	55.87%		
17	74.11%		
18	58.85%		
Hispanic Assembly Districts			
	Census Day		
	2010 - HVAP		
8	65.50%		
9	46.18%		

EXHIBIT
C

Majority-Minority District Summary
Exhibit D

African American Assembly Districts			
	2002 Court		
	Map - BVAP		
10	67.08%		
11	62.85%		
12	32.77%		
16	60.45%		
17	61.88%		
18	56.70%		
Hispanic Assembly Districts			
	2002 Court		
	Map - HVAP		
8	58.34%		
9	22.94%		

EXHIBIT
D

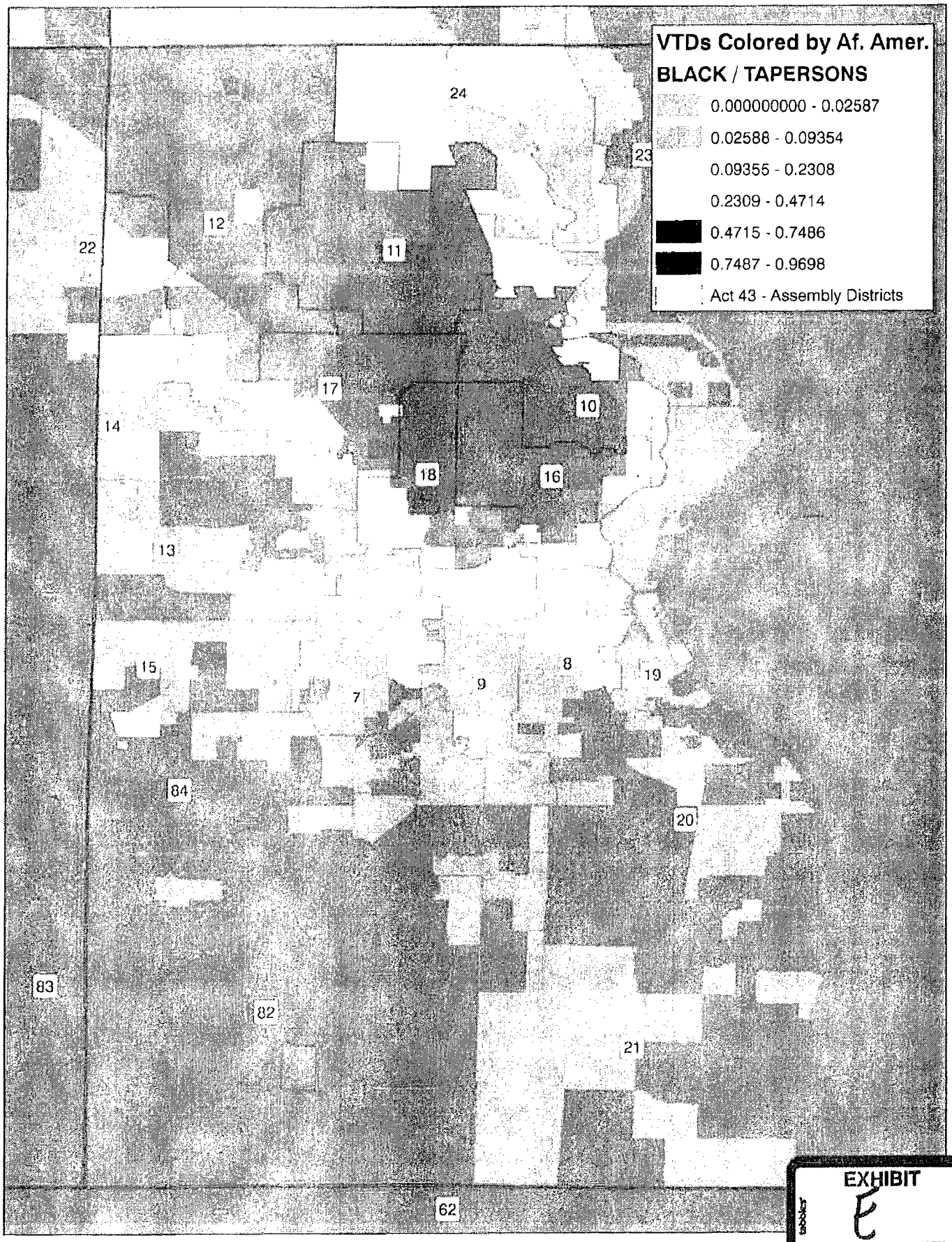
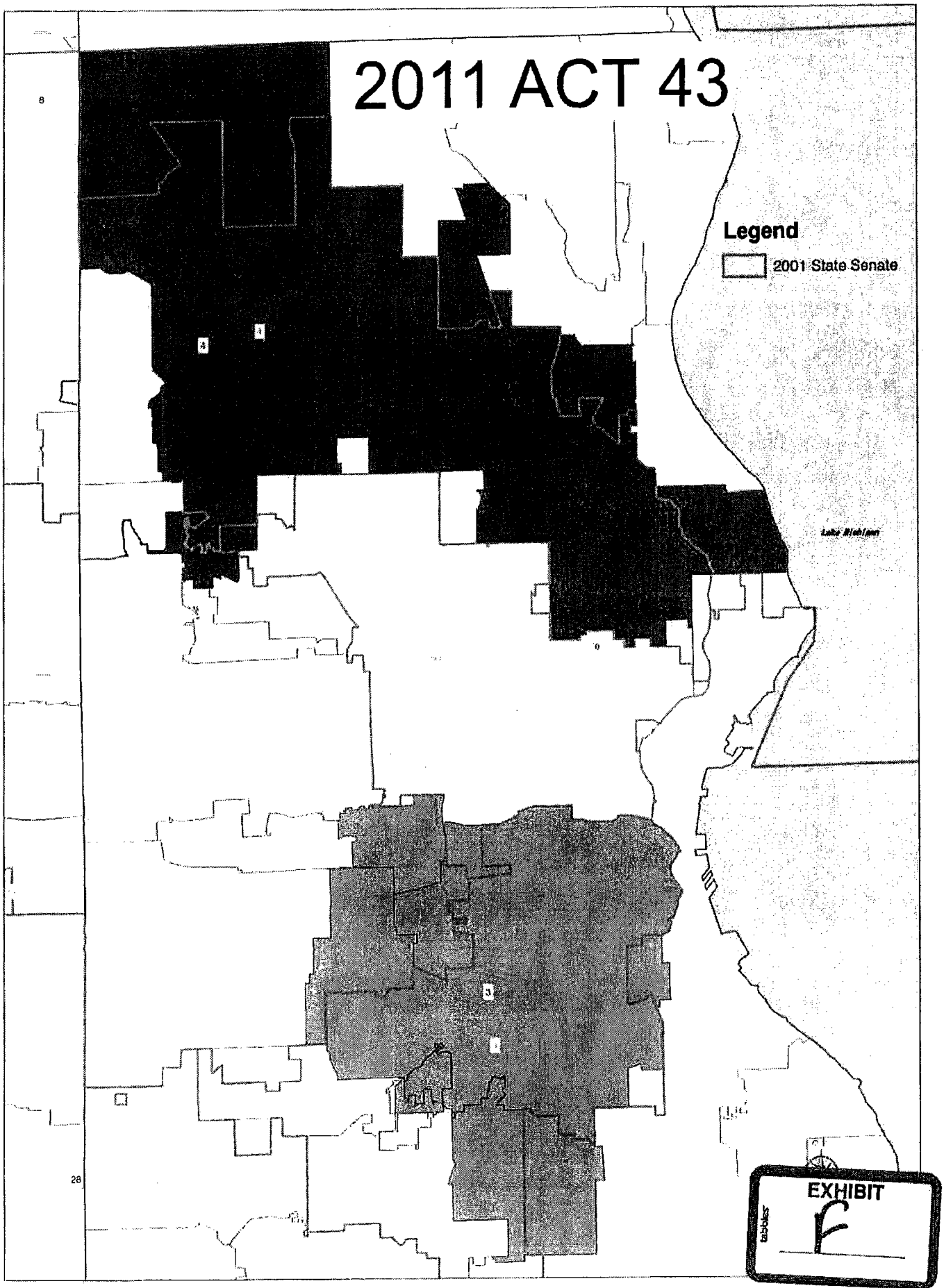
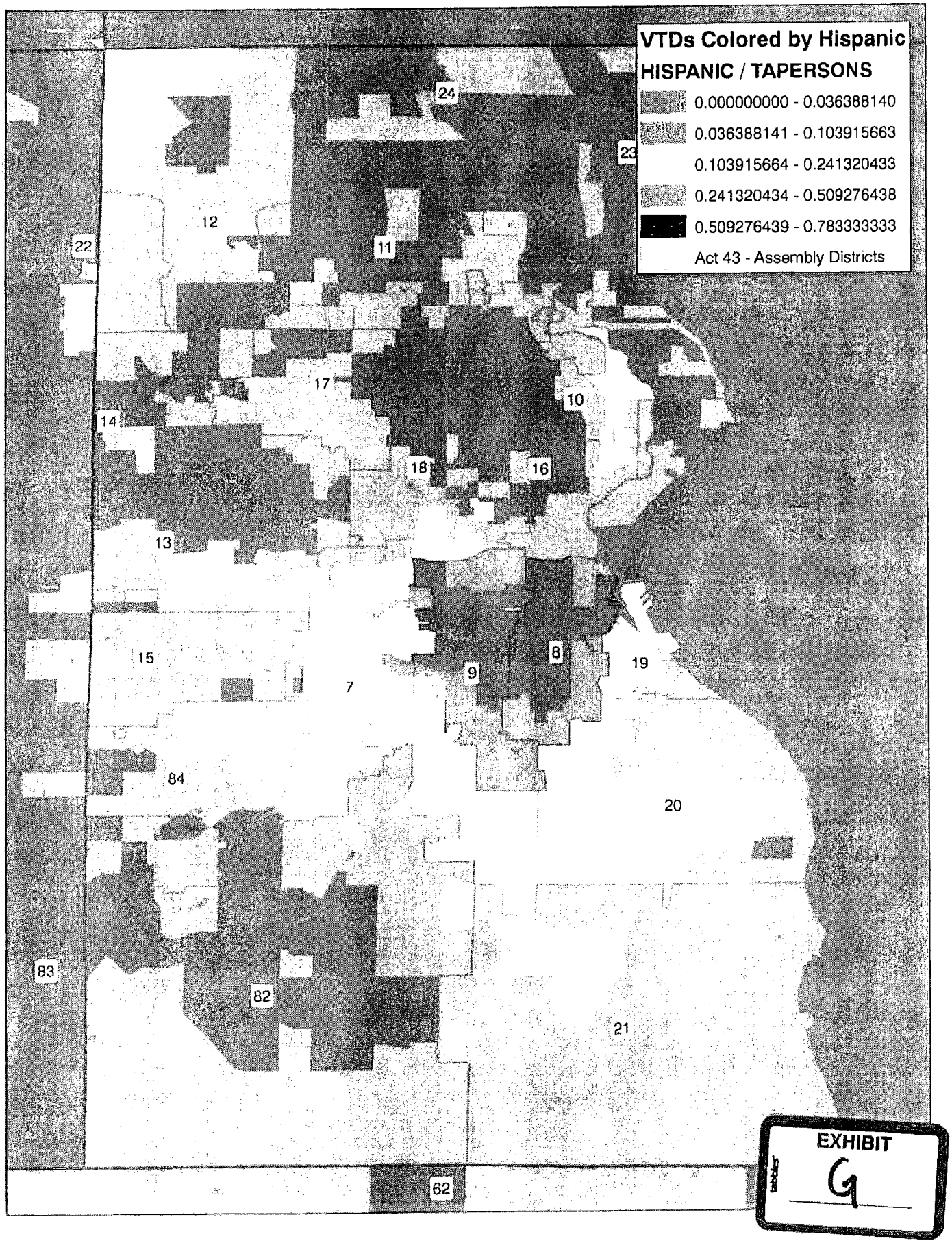

VTDs Colored by Af. Amer.
BLACK / TAPERSONS
0.000000000 - 0.02587
0.02588 - 0.09354
0.09355 - 0.2308
0.2309 - 0.4714
0.4715 - 0.7486
0.7487 - 0.9698
Act 43 - Assembly Districts
24
23
12
11
22
17
10
14
18
16
13
15
8
19
9
7
84
20
83
82
21
62

EXHIBIT
E


2011 ACT 43
Legend
2001 State Senate
Lake Michigan
EXHIBIT
F


VTDs Colored by Hispanic
HISPANIC / TAPERSONS
0.000000000 - 0.036388140
0.036388141 - 0.103915663
0.103915664 - 0.241320433
0.241320434 - 0.509276438
0.509276439 - 0.783333333
Act 43 - Assembly Districts
24
23
12
22
11
17
10
14
18
16
13
15
8
19
9
7
84
20
83
82
21
62
EXHIBIT
G

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF WISCONSIN

ALVIN BALDUS, CINDY BARBERA, CARLENE BECHEN, RONALD BIENDSEIL, RON BOONE, VERA BOONE, ELVIRA BUMPUS, EVANJELINA CLEEREMAN, SHEILA COCHRAN, LESLIE W. DAVIS III, BRETT ECKSTEIN, MAXINE HOUGH, CLARENCE JOHNSON, RICHARD KRESBACH, RICHARD LANGE, GLADYS MANZANET, ROCHELLE MOORE, AMY RISSEEUW, JUDY ROBSON, GLORIA ROGERS, JEANNE SANCHEZ-BELL, CECELIA SCHLIEPP, TRAVIS THYSSEN,

Plaintiffs,

TAMMY BALDWIN, GWENDOLYNNE MOORE and RONALD KIND,

Intervenor-Plaintiffs,

v.

Members of the Wisconsin Government Accountability Board, each only in his official capacity: MICHAEL BRENNAN, DAVID DEININGER, GERALD NICHOL, THOMAS CANE, THOMAS BARLAND, and TIMOTHY VOCKE, and KEVIN KENNEDY, Director and General Counsel for the Wisconsin Government Accountability Board,

Defendants,

F. JAMES SENSENBRENNER, JR., THOMAS E. PETRI, PAUL D. RYAN, JR., REID J. RIBBLE, and SEAN P. DUFFY,

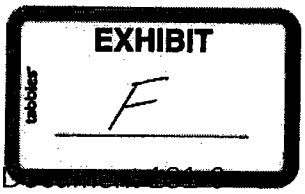
Intervenor-Defendants.

Civil Action
File No. 11-CV-562

Three-judge panel
28 U.S.C. § 2284

(caption continued on next page)

RULE 26 EXPERT REPORT OF DR. KENNETH R. MAYER



VOCES DE LA FRONTERA, INC., RAMIRO VARA, OLGA WARA, JOSE PEREZ, and ERICA RAMIREZ,

Plaintiffs,

v.

Case No. 11-CV-1011
JPS-DPW-RMD

Members of the Wisconsin Government Accountability Board, each only in his official capacity: MICHAEL BRENNAN, DAVID DEININGER, GERALD NICHOL, THOMAS CANE, THOMAS BARLAND, and TIMOTHY VOCKE, and KEVIN KENNEDY, Director and General Counsel for the Wisconsin Government Accountability Board,

Defendants.

I. Introduction

My name is Ken Mayer and I currently am a Professor of Political Science at the University of Wisconsin – Madison, and a faculty affiliate at the Lafollette School of Public Affairs, at the University. I joined the faculty in 1989. I teach courses on American politics, the presidency, Congress, campaign finance, election law, and electoral systems.

I have been asked by counsel representing the plaintiffs in this lawsuit (the "Plaintiffs") to analyze and provide expert opinions in the above-captioned case. Specifically, I have been asked to evaluate whether, in my opinion, whether the redistricting plans enacted in Acts 43 and 44 comply with traditional redistricting principles and adhere to Section 2 of the Voting Rights Act. I submit this report, which contains the opinions that I intend to give in this matter.

My opinions, which are based on the technical and specialized knowledge that I have gained from my education, training and experience, are premised on widely accepted and reliable methods of analysis and application of traditional redistricting criteria, and are based on my review and analysis of the following information and materials:

- The pleadings filed in this case by the parties, including:
  - Plaintiffs' Second Amended Complaint dated November 18, 2011, Docket No. 48
  - December 8, 2011 Correspondence from Defendants' Counsel to Attorney Mason responding to Plaintiffs' December 5th letter and third-party data obtained on behalf of defendants
- Other documents:
  - Microsoft Excel Spreadsheet, filename "Act_44_Demographics"
  - Assembly Chart entitled, "Summary Core Constituency Report" dated December 9, 2011
  - Senate Chart entitled, "Summary Core Constituency Report" dated December 9, 2011
  - Microsoft Excel Spreadsheet, filename "Redistricting Population Movement by District"
  - Microsoft Excel Spreadsheet, filename "GOP 2266 Demographics All"
  - Microsoft Excel Spreadsheet, filename "City of Milwaukee Surname Svrs Counts"
  - Microsoft Excel Spreadsheet, filename "City of Milwaukee Surname Svrs Counts (1)"
  - Microsoft Excel Spreadsheet, filename "Assembly 2011 Split Geography"
  - Microsoft Excel Spreadsheet, filename "Senate 2011 Split Geography"
  - Senate 2011 Chart entitled, "Split Geography Report – By Geography" dated December 11, 2011
  - Senate 2011 Chart entitled, "Split Geography Report" dated December 11, 2011
  - Assembly 2011 Chart entitled, "Split Geography Report – By Geography" dated December 11, 2011
  - Assembly 2011 Chart entitled, "Split Geography Report" dated December 11, 2011
  - Map, filename "Mayer_Latino_07182011 autoBound Plan with Major Roads"
  - Map, filename "Mayer_Latino_07182011autoBound Plan"

- Microsoft Excel Spreadsheet, filename "Disenfranchisement by 2011 SD with Demographics"
- Microsoft Excel Spreadsheet, filename "Assembly 2011 Split Geography"
- Microsoft Excel Spreadsheet, filename "Senate 2011 Split Geography"
- Microsoft Excel Spreadsheet, filename "City of Milwaukee Surname Svrs Counts"
- Microsoft Excel Spreadsheet, filename "Latino Dist Pop Stats"
- Microsoft Excel Spreadsheet, filename "Assembly 2001 Compactness Report"
- Assembly 2001 Compactness Analysis Report dated December 10, 2011
- Microsoft Excel Spreadsheet, filename "Assembly 2001 Compactness Report" dated December 10, 2011
- Microsoft Excel Spreadsheet, filename "Assembly 2011 Compactness Report"
- Assembly Compactness Analysis Report dated December 10, 2011
- Microsoft Excel Spreadsheet, filename "Assembly 2011 Compactness Report" dated December 10, 2011
- Microsoft Excel Spreadsheet, filename "City of Milwaukee Surname Svrs Counts"
- Microsoft Excel Spreadsheet, filename "Senate 2001 Compactness Report"
- Senate 2001 Compactness Analysis Report dated December 10, 2011
- Microsoft Excel Spreadsheet, filename "Senate 2001 Compactness Report" dated December 10, 2011
- Microsoft Excel Spreadsheet, filename "Senate 2011 Compactness Report"
- Senate Compactness Analysis Report dated December 10, 2011
- Microsoft Excel Spreadsheet, filename "Senate 2011 Compactness Report"
- Mayer_Latino Auto-Bound Plan Single AD dated July 18, 2011
- Meyer_Latino_AD8 zip file

II. Qualifications, Publications, Testimony, and Compensation

I have a Ph.D. in political science from Yale University, where my graduate training included courses in econometrics and statistics. My undergraduate degree is from the University of California, San Diego, where I majored in political science and minored in applied mathematics. My curriculum vitae is attached to this report as Exhibit 1.

All publications that I have authored and published in the past ten years appear in my curriculum vitae, attached as Exhibit 1. Those publications include the following peer-reviewed journals: Journal of Politics, The American Journal of Political Science, Legislative Studies Quarterly, Presidential Studies Quarterly, Congress and the Presidency, Public Administration Review, and PS: Political Science and Politics. I have also published in law reviews, including the Richmond Law Review and the UCLA Pacific Basin Law Journal. My work on campaign finance has been published in Legislative Studies Quarterly, Regulation, PS: Political Science and Politics, Richmond Law Review, the Democratic Audit of Australia, and in an edited volume on electoral competitiveness published by the Brookings Institution Press. My work on election administration has been published in the peer-reviewed Election Law Journal, and I have been retained as a consultant by the Government Accountability Board to review their compliance with federal mandates, reporting systems, and to survey local election officials throughout the state. I am currently beginning a project with the GAB to review their polling place incident log system.

My work on campaign finance has been cited by the Government Accountability Office, and by legislative research offices in Connecticut and Wisconsin.

In the past four years, I have testified as an expert witness in trial or deposition in the following cases: *McComish v. Brewer*, No. 08-1550 (D. Ariz.) (Arizona campaign finance case,

2008-2009); *Kenosha County v. City of Kenosha*, No. 11-CV-1813 (Kenosha County Circuit Court, Kenosha, WI, 2011).

I am being compensated at a rate of $250 per hour.

III. Opinions

A. Summary

My opinions may be summarized as follows. Below, I set forth my opinions in greater detail.

- 2011 Wisconsin Act 43 does not sufficiently comply with traditional redistricting principles and demonstrate several examples of unnecessary and arbitrary deviations from these principles. These include excessive population shifts that were not necessary to achieve population equality; failure to preserve core district populations; arbitrary and partisan decisions regarding the compactness of legislative districts; and excessively and unnecessarily disenfranchising voters who will lose their vote in the 2012 state Senate elections.

- 2011 Wisconsin Act 43 does not comply with Section 2 of the Voting Rights Act because it fails to create any state Assembly districts with an effective majority of a Latino citizen voting-age population, and it packs African-Americans into five Assembly districts with excessively and unnecessarily high concentrations of African-American voters.

- It appears that the confessional redistricting plan has the same flaws as the legislative plan, with respect to the arbitrary movement of more people than was necessary to achieve population equality and failure to adhere to traditional redistricting principles. Absent explanation, there is no apparent apolitical reason for the changes made.

B. The Redistricting Act Does Not Comply With Traditional Redistricting Principles.

Under the Wisconsin Constitution, both congressional and state legislative redistricting acts must comply with federal and state constitutional requirements. The Wisconsin Constitution (Article IV, Section 4) requires the legislature to draw Senate and Assembly districts that consist of contiguous territory and be in as compact form as practicable. In addition to the statutory and constitutional requirements, states are bound to comply with traditional redistricting principles, which include:

(1) respect for existing political subdivisions, and minimizing the number of jurisdictions split among legislative districts;

(2) maintaining communities of interest;

(3) preserving core population of existing districts where possible;

(4) disenfranchising as few voters as required under the applicable standards.

These traditional criteria have the effect of enhancing voting equality while at the same time protecting relationships between voters and their representatives.

It is apparent that the existing redistricting plan (codified in Acts 43 and 44) departs substantially from these principles. In particular, in four major respects the plan does not comply with these principles: (a) the plan shifts far more individuals between districts than is necessary to achieve acceptable population deviations; (b) the plan does not adequately preserve core district populations; (c) the plan needlessly and arbitrarily splits local political subdivisions, and fails to preserve important communities of interest; and (d) the plan disenfranchises an excessive number of individuals by moving them out of even numbered Senate districts and into odd-numbered districts, therefore depriving these voters of the opportunity to vote in the 2012 legislative elections. I discuss each of these conclusions in more detail below.

1. The redistricting plan shifts an excessive and unnecessary number of individuals between districts in the process of equalizing district populations.

In redrawing district lines after each decennial census, the primary goal is to equalize population in accordance with the U.S. Supreme Court's longstanding "one person-one vote" jurisprudence. Over the course of the previous decade, population shifts, migration, population growth, and population declines across a state invariably result in legislative districts that have unequal populations; the result is that voters in smaller districts have more voting power, in the sense that their votes have more weight in legislative elections, than voters in more populous

districts. The solution is to redraw district lines so that the populations are once again equal, based on the results of the decennial census.[1]

Redrawing lines inevitably means that some districts must be altered to include more people, while others must be altered to exclude some people. But the need to equalize population must be balanced against other redistricting criteria, such as the need to maintain core district population, so that voters are not arbitrarily moved from one district to another every 10 years. Such whipsawing will have the effect of disrupting the relationship between voters and their representatives, if voters are simply shifted into new districts; without some degree of stability, voters who may have established relationships with their legislators will be forced to begin anew with a different slate of legislators (or with each other as constituents and community leaders) and legislators who may lack familiarity with the needs and interests of a constituency or population that is arbitrarily added to their district.

This discussion does not deny that some population shifts are necessary, or that the need for population equality – although not necessarily exact population equality –is trumped by the interest in representational stability. Rather, it is to say that the process of obtaining constitutional equality must occur while recognizing the importance of minimizing the number of dramatic changes in district configurations (as measured, by proxy, by core population retention).

On this score, it is apparent that the enacted redistricting plan shifts an entirely unnecessary and excessive number of individuals between districts. In Exhibit 2, the first three columns list, for the 99 State Assembly districts, the population of existing districts (pre-

[1] States are permitted some latitude in how equal the populations must be in order to comply with court-established standards. Congressional districts must be nearly exactly equal in populations. State legislative districts are permitted to vary somewhat more, – indeed, by as much as 10% or more – although any deviations from ideal population must be justified by some valid state interest.

redistricting), the number of people who must be moved in order to achieve zero deviation from the ideal district population, and the number of people who were actually moved to obtain a district population that falls within an acceptable range of population deviations. The net change in population is achieved by moving people into and out of the district in order to obtain an acceptable population that is close to the ideal Assembly district population of 57,444. But it is apparent that the plan often moves far more people in and out of the district than is necessary to equalize population, without any apparent apolitical justification.

Consider, for example, Assembly District 1. The population of this district, prior to redistricting, was 54,189, which is 3,255 fewer than the ideal population (column [3]). The redistricting plan moved 3,031 people into the district (column [4]). This net change was achieved by moving 3,044 individuals into the district [column 5] and 13 individuals out [column 6]. The total population shift is the sum of the number of people moved in and the number moved out (column 5+ column 6). In this instance, the total shift of 3,057 is very close to the actual population change of 3,031, signifying that there were very few people moved unnecessarily into or out of the district. In other words, the shifts were minimal and appropriate. In column [7], I calculate the ratio of the total population shift to the actual population change, and denote this the shift/change ratio. Numbers close to 1 show that the number of people moved into or out of a district is close to the actual population change required to equalize populations across districts. As this ratio gets larger, it signifies that more people are moved in or out than necessary. A ratio of 3, for example, shows that 3 times as many people were moved than was necessary to achieve population equality.[2]

[2] To give an extreme example, a district that required a population change of 1 person could achieve that change by moving one person into the district, or alternatively, by moving 10,000 people out of the district and 10,001 people into the district (both achieve a net increase of 1 person). In the first instance, the ratio of shift/change would be 1. In the 2nd instance, the ratio would be (10,000+10,001)/1=20,001.

A quick look at Exhibit 2 shows that, on average, far more people are shifted into and out of each district than is necessary to achieve population equality. On *average*, the plan shifts 53.5 times as many people as necessary, often moving tens of thousands of people into and out of a single district to achieve a net population change of a few hundred.

The most extreme example of this is district 99, which under the redistricting plan subtracted only 20 people from the existing population of 57,299. This change was obtained, however, by shifting 13,524 people into the district, and shifting 13,544 out of the district. Ultimately, a net change of 20 involved moving around 27,068 people, for a shift/change ratio of 1,354. It should be obvious on inspection that such a large shift of population was wholly unnecessary to achieve a net change of only 20 people. It is not at all clear what justification there might be for such large population shifts.

This pattern is repeated throughout the Assembly redistricting process. Of the 99 Assembly districts, only 9 had a shift/change ratio of 2 or less, showing that in over 90% of the districts at least twice as many people as necessary were shifted. In 11 districts, the ratio was greater than 100, signifying that 100 times as many people as necessary were moved to achieve population equality.

Exhibit 3 shows the same calculations for the 33 Senate districts. Senate districts are wholly comprised of 3 nested Assembly districts, of course, and the population shifts in the Senate districts will generally be smaller than the population shifts in Assembly districts. Within a single Senate district population shifts among the three nested Assembly district components will not appear as population shifts in the Senate district as a whole.

Nevertheless, the analogous calculations show that at the Senate level significantly more people than necessary were shifted from one district to another. In six Senate districts, at least

50 times more people were moved than necessary to achieve an acceptable degree population equality. Again it is not all clear why this was necessary. Here, by far the most extreme example is the 17th Senate district, which required that only 58 people be moved to achieve a perfect ideal population; ultimately, 159 people were moved out of the district. But this small change was achieved by moving 19,666 individuals into the district and 19,507 people out, for a total population shift of 39,173. This was more than 675 times the number of people who actually had to be moved, resulting in a population shift/population change ratio of 675.4.

In all, considering both Assembly and Senate districts, these calculations show that the new populations of all districts were achieved by a net change of only 554,067 people. But to achieve this, the enacted plan shifted more than 3.5 million individuals around from one district to another – in effect, a small net population change was achieved by moving a large fraction of the state's population.

The clear conclusion of this analysis is that a significant portion of the state population, and far more than was necessary, was moved from one district to another. These shifts were unnecessary to achieve population equality, since that equality could, by definition, have been achieved by a general shift/change ratio much closer to 1 than the overall average ratio of 53.5 for the Assembly or 55.0 for the Senate.

2. The redistricting plan does not adequately preserve core district population.

The preceding discussion of the unnecessary shifts in population is related to the concept of core population retention, or a measure of the percentage of each district's population that is preserved after redistricting. In core population retention analysis, the largest portion of the existing district that is maintained in the new district is identified, and the measure itself is simply the number of people in the old district who are also in the new district. The higher the

core retention measure, the greater the cohesiveness of the district and respect for traditional voting and civic participation standards.

Core population retention calculations can be complicated by the fact that some entirely new districts must be created when some parts of the state grow faster than others and therefore require additional legislative districts (this is precisely analogous to the reapportionment process which reallocates House districts among states as a result of population changes). In these instances, I simply identify the largest bloc of individuals, no matter what district they might have been in under the existing plan.[3]

I show the results of these calculations in Exhibit 4 for the state Assembly. Districts in red are those that were created in new areas, with core population retention calculated as described in the previous paragraph. Overall, the average core population retention – as calculated as the simple mean of the core population retention of each district – is 61.7%, meaning that, on average, less than 2/3 of each district was preserved in the redistricting plan. By way of contrast, in the 2002 Court-drawn plan, 77% of the core population of the existing plan was preserved.

In Exhibit 5, I show the core population retention for Senate districts. Because Senate districts are much larger than Assembly districts, I expect the core population retention to be higher (as indeed it is, at 79.2%).

One other fact suggests a pattern of arbitrariness in decisions about which districts to preserve. For districts represented by Democrats after the 2010 elections, the average core population retention was 53.7%. For districts represented by Republicans, the average core population retention was 66.5% – over a 13 percentage point difference. This is indisputable

[3] This accounts for the differences between my calculations and those in the Second Amended complaint. In the complaint, newly created districts are calculated as having a core district retention of zero.

evidence that the redistricting plan was *intended* to put Democrats at a disadvantage by preserving a significantly smaller share of their existing districts than what Republicans enjoyed. Democrats, under the plan, are forced to work with larger populations that they have not represented before, undercutting the stability of the voter-representative relationship. Republicans, with a significant edge in district retention, face far fewer problems in maintaining ties with existing constituents. For Senators in office after the 2010 elections, and before the Summer 2011 Recall elections (in which Republican incumbents in the 25th and 32nd districts lost), Republicans had a slightly higher core population retention than Democrats, 79.9% to 78.2%.

3. The redistricting plan does not create compact legislative districts.

The Wisconsin Constitution (Article IV, section 4) requires the legislature to create districts that are "in as compact form as practicable." There are a variety of methods typically used to calculate compactness measures, and no universally agreed upon measure. A standard practice, therefore, is to calculate multiple indicators of compactness and analyze the results. I calculated four values of compactness, each with distinct characteristics. These measures are the following:

(1) Circularity Ratio – The ratio of the area of the district to the area of a circle (the most compact shape) having the same perimeter of the district.

(2) Circumference measure – the area of a circle with the same area as a district divided by the perimeter of the district.

(3) Convex hull (Roeck) – the ratio of the district area and the smallest simple convex shape that completely encloses the district.

(4) Minimum circumscribing circle – the ratio of district area to the area of the smallest circle that completely encloses the district.

The overall compactness of the 2011 plan does not differ substantially from the overall compactness of the court-drawn 2002 plan.

Even though the districts do not vary dramatically in overall compactness, there is, once again, a distinct pattern in the partisanship in the compactness measures. For the Assembly, of the ten least compact districts as measured by the minimum circumscribing circle, six are represented by Democrats. And, of the 20 *most* compact districts using the same measure, 15 are represented by Republicans.

This pattern is independent of the measure used. Applying the circularity ratio, the mean compactness of Republican districts in the 2011 plan was 54.35; for Democrats, the mean compactness measure was 48.53, a difference of over 10 percent.

4. The redistricting plan disenfranchises an excessive number of Senate electors.

Wisconsin's 33 Senators are elected to four year terms in staggered elections. Senators from even-numbered districts were elected in 2008, while those from odd-numbered districts were elected in 2010. During the redistricting process, individuals who are moved from an even-numbered district to an odd numbered district will lose their ability to vote in the 2012 elections, and will go six years – from 2008 to 2014 – between Senate elections.

The enacted redistricting plan moves 299,639 individuals from even to odd-numbered Senate districts, thus disenfranchising them for the 2012 election. By comparison, the 2002 court-drawn plan resulted in only approximately 170,000 voters.

Of the 299,639 disenfranchised voters, over 120,000 occur through shifts of voters into the 21st Senate district, in Racine and Kenosha County (72, 431), and shifts of voters into the 27th Senate district (49,867). In the Racine/Kenosha area, historically each county had comprised the bulk of two separate Senate districts – Racine County comprised most of the 21st Senate district, and Kenosha County most of the 22nd Senate district. Under the redistricting plan, the cities of Racine and Kenosha are combined into a single Senate district (a reconfigured 22nd Senate

district) , while the remainder of Kenosha and Racine counties are split off into a reconfigured 21st Senate district. Virtually the entire population of Kenosha County outside of the City of Kenosha is moved from the old 22nd district into the new 21st district, and is therefore disenfranchised.

Similarly, in Dane County a substantial number of individuals on the western edge of Madison were moved from the 26th Senate district into the new 27th Senate district. These 49,687 individuals will also lose their vote in the 2012 Elections.

In both of these instances, there was no compelling reason to redraw the districts in a manner that resulted in such large numbers of disenfranchised voters. More marginal changes, or even leaving the existing Senate district structures in Kenosha and Racine counties would have resulted in substantially fewer disenfranchised individuals. The changes were unnecessary, and appear to be arbitrary.

C. The Redistricting Plan Does Not Comply with Section 2 of the Voting Rights Act.

The 1982 Amendments to the Voting Rights Act require that minority voters be given an equal opportunity to White voters to elect candidates of their choice. The precise conditions under which the Act applies were set out in the landmark Supreme Court decision *Thornburg v. Gingles* 478 U.S. 30 (1986), which specified three conditions (or "prongs") that bring Section 2 into effect. *First*, a minority group must be sufficiently large and compact to permit the creation of majority-minority districts; *second*, the minority group must be politically cohesive; and *third*, there must be evidence of racial-bloc voting, in which minority voters are denied opportunities to elect candidates of choice because (as a rule) White voters will not vote for minority candidates. When these conditions are met, states may be permitted to draw deliberately race-conscious districts comprised of a majority of a minority group (or, majority-minority districts), under a

"totality of circumstances" test that assesses whether minority voters have not had an equal opportunity to participate in the political process.

To establish the first prong of the *Gingles* test, it is necessary to analyze the size and concentration of different minority groups. To meet the second and third prongs, the common practice is to analyze voting patterns among minority and nonminority groups. The degree to which a minority group votes for the same candidates – particularly if those candidates are from the same minority group – can be taken as evidence of the political cohesion of that group, in the sense of shared attitudes and voting preference. The third prong – racially polarized voting – is necessary to establish that minority groups are denied the opportunity to elect candidates of choice, because White voters vote against minority candidates by casting their votes for White candidates when presented with the opportunity to do so.

Establishing the second and third prongs of the *Gingles* test invariably involves analysis of voting patterns by race. This, in turn, presents one of the thorniest problems in statistics, that of making inferences about individual voters using only aggregate data. Because we cannot observe how specific individuals voted, we are forced to rely on aggregate reported data – typically vote totals reported by ward – along with data on the racial composition of each ward. To move from this aggregate-level data to estimates about how individuals cast their vote – since we need to know whether individual minority or White voters cast their ballots for minority or White candidates – we must rely on ecological inference techniques (*see* King 1997, chapter 1).

The most common methods used to reconstruct individual behavior from aggregate data in voting rights analysis (as endorsed by the Court in *Gingles*) are: (1) homogeneous precinct analysis, in which we analyze data from overwhelmingly minority or White voting precincts, typically those with concentrations of 90% or more; (2) double-regression, a statistical technique

that estimates the percentages of minority and White voters who cast their ballots for candidates of the same race; and (3) the Method of Bounds, which uses available data to establish upper and lower limits on the percentages of minority and White voters who cast their ballots for candidates of the same race.

Unfortunately, all of these methods have identifiable shortcomings, and in addition rely on assumptions that are often questionable. In particular, double regression routinely produces estimates that purport to show that more than 100% of minority (or White) voters voted for the minority (or White) candidate, and less than 0% of minority (or White) voters voted for the White (or minority) candidate. Homogeneous precinct analysis is not possible unless the demographics of wards have specific characteristics, and the method of bounds often fails to provide meaningful limits on estimates of voting behavior (King 1997, chapters 3 and 4).

A relatively new method, denoted *Ecological Inference* (EI) by its developer, Harvard professor Gary King, offers a feasible solution to problems of the commonly used methods, and has the advantage of producing meaningful estimates that are between 0 and 100 (a critical property when estimating the percentage of racial groups who cast their ballot for specific candidates). In effect, EI is a generalized method that combines information from the method of bounds with a "maximum likelihood" technique that identifies parameter values (in this case, the percentage of different racial groups that cast their ballots for certain candidates) that have the greatest probability of generating the actual data observed. This method is reliable, is comparable to other methods where coefficients can be computed, and is regarded in political science as an improvement on existing methods of making inferences about individual behavior from aggregate data. (King, Rosen, and Tanner 2004). To implement the method, I use software

generated by Professor King that runs on the open-source statistical package R. The EI software is available at http://gking.harvard.edu/ei. (*See* Wittenberg, et al. 2007.)

There are two minority groups that meet the Section 2 criteria for the drawing of majority-minority districts in the City of Milwaukee, Latinos and African-Americans. Below, I apply the *Gingles* criteria to each of these minority groups under Act 43.

1. Act 43 fails to create any districts with effective Latino voting-age majorities.

The Latino population of the City of Milwaukee is, according to the 2010 Census, 103,001 (17.3% of total), and the Latino Voting Age Population (VAP)[4] is 63,202 (14.6% of total VAP). The redistricting plan (Acts 43 and 44) appears to recognize the applicability of Section 2, by drawing six majority-minority African-American Assembly districts (the 10th, 11th, 12th, and 16th, 17th and 18th, constituting two Senate districts, the 4th and the 6th), and *appearing* to create 2 majority-minority Latino Assembly districts (the 8th and the 9th, as defined by VAP).[5] The Latino population, which is the fastest growing demographic group in the city, is concentrated in a small geographic area south of the main East-West Interstate highway. Of the 103,007 Latinos in Milwaukee county, 70,779 (68.71%) are concentrated within 939 contiguous census blocks on the near south-side. The Latino population makes up 65.6% of the population within those census blocks. This area of concentration is roughly square and is approximately bounded by I-94 on the north, 1st street and I94/43 on the east, Howard Street to the South and 42nd Street to the west. Here as well, the Latino community is both sufficiently large and geographically compact to meet the first prong of the *Gingles* test.

[4] In this context, the VAP is simply the percentage of population, or of a particularly minority group, that is 18 years of age or older.

[5] The apparent creation of these two majority-minority Latino districts is illusory. As I demonstrate below, the Latino voting-age population is insufficient to create an effective Latino majority.

In Exhibit 6, I show an alternative 8th Assembly District with a Latino VAP of 70.07%. This district shows that it is possible to construct a compact district with high Latino VAP.

In Exhibit 7, I show the results of analysis for several races, in which one or more Latino candidates runs against one or more White candidates. The first row of the table shows the results for the 2011 primary for Milwaukee County Circuit Court Judge, in which Latino candidate Pedro Colon ran against multiple White candidates. King's EI method estimated that 58.2% of Latinos voted for Colon, while only 32% of Whites voted for him (in other words, 68% of Whites voted for one of the White candidates). The difference in these two percentages – the percentage of Latinos who voted for the Latino candidate, minus the percentage of Whites who voted for the Latino candidate – is 26.2%. In the general election, which pitted the top two primary candidates against each other, Colon faced non-Latino Christopher Lipscomb. In this race, 66.2% of Latinos voted for Colon, compared to 45.3% of White candidates (again, in other words, 54.7% of Whites voted for the White candidate). The difference is 20.9 percentage points. This is indicative of a relatively high rate of racially polarized voting.[6]

Two races on this list show a very high degree of racially polarized voting. In the 2008 State Superintendent of Public Instruction general election, Latina Rose Fernandez ran against Tony Evers. Here, 95.7% of Latino voters in Milwaukee County voted for Fernandez, against only 40.5% of White voters. The difference in support, 55.2%, suggests a very high degree of racial polarization. The second example is the 2004 State Senate election, in which Latina Jennifer Morales ran against incumbent State Senator Alberta Darling. Morales received the

[6] Colon narrowly won the judicial election, 50.7% to 49.3%. Within the city, however, Colon's majority was much larger, and he carried 59.1% of the vote.

support of 89.2% of Latino voters, compared to less than 50% of White Voters, a difference that suggests a high degree of racially polarized voting (both Fernandez and Morales lost).[7]

To these tests, we can add evidence that a racial or language minority has historically been discriminated against, or faces disadvantages in the electoral process, to fill out the "totality of circumstances" test outlined in *Gingles*. Common indicators of discrimination or electoral disadvantages include lower rates of participation, differences in registration rates, or socioeconomic differences that interfere with the ability to fully participate in the electoral process and elect candidates of choice.

Using data from the Milwaukee County Elections Commission, I identified 36 elections since 1989 in which one or more Latino candidates ran against one or more White candidates. Only four Latino candidates won over this entire period (or 11.1%).

I obtained data from the Statewide Voter Registration System (SVRS) for the City of Milwaukee. This database includes information on every registered voter, including name, address, and ward assignments. Using it, it is possible to calculate registration rates for different populations, and to do so by direct observation, without relying on any aggregate data that requires any kind of ecological inference. For Latino individuals, the most accurate and most common practice is to identify them by surname (in method known as "surname analysis"; see Word and Perkins 1996; Abrahamse, Morrison and Bolton 1994; Barreto, Seguro, and Woods 2004). To identify Latino voters, I use the list in Word and Perkins (1994, 20-21) that displays

[7] A key fact in the Evers-Fernandez race was that Rose Fernandez was not, in fact Latina. Still, in a low salience race lacking party labels, the overwhelming percentage of Latino voters clearly used her name as an information short cut, and voted as if she were a Latina. Similarly, a clear majority of White voters preferred Evers. In this case, voter beliefs about a candidate's ethnicity were more important than the actuality of that candidate's ethnicity. This is about as pure a test of racially polarized voting as can be created.

the 639 most frequently occurring heavily Hispanic surnames. For each individual with a surname on this list, I classified them as Latino.[8]

A simple calculation of registration rates among Latino and non-Latino individuals shows a huge disparity within the City of Milwaukee. Citywide, the SVRS data show that over 76% of non-Latinos are registered to vote, compared with only 26% of Latinos.

This data is displayed at the ward level in Exhibit 8. Here, I plot the percentage of Latino individuals registered in each ward, against the percentage of non-Latino registrants. The diagonal line in the graph is the 45 degree line that would show equality between Latino and no-Latino registration rates if the data points fell on this line. Instead, all of the data points are above the graph, demonstrating clearly that *everywhere* in the city ,Latino registration rates lag far behind non-Latino rates. To emphasize: non-Latino registration rates are significantly higher than Latino registration rates in every ward in the city.

There are two main sources for this disparity. The first is that Latinos, as a group, tend to have demographic characteristics – lower income, higher poverty levels, less formal education – that make them less likely to register and vote. The second is that a significant numbers of Latinos in Wisconsin are ineligible to vote because they are not citizens. Estimating the percentage of noncitizens in any population can be difficult, as there are many possible sources of over-reporting and under-reporting. However, the best data in existence comes from the American Community Survey, a detailed survey conducted by the Census Bureau between 2006 and 2010. The 2010 Census did not include questions about citizenship, but that data remain important for a variety of purposes. The ACS provides a measure of non-citizenship rates for

[8] There is, of course, a small error rate in this method, as non-Latinos occasionally have Latino surnames, and Latinos occasionally have non-Latino surnames. Nevertheless, it remains the most accurate way of identifying individuals who are Hispanic, as opposed to aggregate data from the Census, which does not identify individuals, and has been accepted as a method by federal courts adjudicating voting rights claims.

various demographic groups in the U.S. Using the 2008 ACS data for Wisconsin, I calculated a non-citizenship rate among the Voting Age Population of 35.75%.

The newly enacted redistricting plan appears to create two majority-minority Latino Assembly districts, the 8th and 9th. These two districts have, respectively, Latino voting age populations of 60.54% and 54.0%. However, once the non-citizenship rate is taken into account, as well as the historic low rates of registration even among otherwise eligible Latinos, neither of these districts has concentrations high enough to create effective Latino majorities.[9]

Incorporating the non-citizenship rate into district demographics involves straightforward calculations. Under the redistricting plan, the 8th Assembly district has the following demographic characteristics:

(1) Total Voting Age Population: 38,021

(2) Total Hispanic VAP: 23,016

(3) Total non-Hispanic VAP (1-2): 15,005

(4) Total Hispanic CVAP: 23,016*(1-35.75) = 14,788

This gives a total voting age population of the 8th district of 15,005+14,788 = 29,793. Given a Latino citizen voting age population of 14,788, eligible Latinos constitute 49.6% of the district voting age population. This is not enough Latino voters to constitute a numerical majority in the district.

By contrast, the reconfigured 8th district I drew has a higher percentage of Latinos, and results in populations large enough to provide for effective majority control. My proposed 8th district has the following demographic characteristics:

(1) Total Voting Age Population: 35,943

[9] The 8th and 9th Assembly districts are split by 16th St., which is the main business district in the neighborhood and a center of the community of interest. Act 43 places one side of 16th street in the 8th district, and the other side in the 9th, splitting the neighborhood in half.

(2) Total Hispanic VAP: 25,285

(3) Total non Hispanic VAP: 10,758

(4) Total Hispanic CVAP: 25,285*(1-37.75) = 16,181

The total eligible VAP in this proposed district is 26,939, giving a Latino CVAP percentage of 16,181/28,939 = 60.06%. This concentration has a much better probability of resulting in an effective majority-minority district.[10]

2. Act 43 packs African-American voters by creating districts with excessive and unnecessarily high concentrations of African-American VAP.

According to the 2010 Census, the City of Milwaukee had a population of 594,833, and a voting age population (VAP) of 433,442. The African-American population in the city is 239,923 (40.3% of total population), and the African-American Voting Age Population is 156,153 (36.0% of total VAP).

The African-American population is concentrated in the North-central portion of the city, and in large part lives in areas that are at least 75% African-American. 85.7% (217,551) of the total African-American population in Milwaukee County (253,764) resides in 3790 contiguous census blocks (of 13,231 total blocks within the county). Within these blocks, the African-American population represents 70.6% of the total population. This area of high concentration is generally in the northern half of the county, and more specifically runs to the northwest away from downtown Milwaukee and is broadly bounded by the Milwaukee county line on the north edge, variously the Milwaukee river and the Canadian national rail line on the east, I-94 on the southern edge and Highway 41 and the NW county line to the west. In terms of

[10] Recall the results of the SVRS surname analysis, which demonstrated that the registration rate among non-Latinos was three times as high as the rate for Latinos.

size and compactness, therefore, the African-American population meets the first prong of the *Gingles* test.

In Exhibit 9, I show the results of analysis for several races, in which one or more African-American candidates runs against one or more White candidates. In all of these races, African-Americans were almost always close to unanimous in their support for the African-American candidate. At the same time, White voters were uniformly less likely to support the African-American candidate, often by huge margins.

The one race in this list with a relatively small difference in support for the African-American candidate among White and African-American voters was the 2010 4th Congressional District primary, with African-American Gwen Moore running against White candidate Paul Morel. Moore had first been elected to the seat in 2004, so this was a case of a long-shot challenger with no political experience running against an incumbent who had won every general election with at least 70% of the vote, and who had received 88% of the vote in the 2008 general. Morel received only 14.1% of the vote in the primary. Still, there was a significant difference in support among White and African-American voters: 93.5% of African-American voters supported Moore, while only 74.9% of White voters supported her.

In all of these races, African-Americans were almost always close to unanimous in their support for the African-American candidate. At the same time, White voters were uniformly less likely to support the African-American candidate, often by huge margins.

Act 43 creates 6 majority-minority African-American districts, with African-Americans comprising the following concentrations of VAP:

District	% African-American VAP
10	61.8%

11	61.9%
12	51.5%
16	61.3%
17	61.3%
18	60.4%

In the 10th, 11th, 16th, 17th, and 18th Assembly districts the concentration of African-American voters is excessive, far above the thresholds most commonly accepted as necessary to achieve effective majority status – 55% is typical. This is a classic case of "packing," or placing more African-American voters into a district than is necessary to achieve effective majority status. These "extra" votes are not necessary for effective African-American majority status, and are therefore wasted, in the sense that they would almost certainly be cast for candidates who would have won in any event.

I can calculate what would happen if these concentrations were reduced to more appropriate levels. If the African-American VAP concentrations were changed to 55% in the 10th, 11th, 16th, 17th, and 18th districts, 12,919 African-American voters would be available for distribution to other districts, while still retaining effective majorities in the existing majority-minority districts. These redistributed voters could enhance the influence of African-Americans in other districts, even if the numbers are not large enough to create a 7th majority-minority African-American Assembly district.

Sources Cited

Abrahamse, Allan F., Peter A. Morrison, and Nancy Minter Bolton. 1994. "Surname Analysis for Estimating Local Concentration of Hispanics and Asians." Population Research and Policy Review 13:383-398

Barreto, Matt, Gary Seguro, and Nathan D. Woods. 2004. The Mobilizing Effect of Majority Minority Districts on Latino Turnout." American Political Science Review 98:65-75 (no. 1, February)

King, Gary. 1997. A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data. Princeton: Princeton University Press.

King, Gary, Ori Rosen, and Martin A. Tanner. 2004. Ecological Inference: New Methodological Strategies. New York: Cambridge University Press.

Jason Wittenberg, Ferdinand Alimadhi, Badri Narayan Bhaskar, and Olivia Lau. 2007. "ei.RxC: Hierarchical Multinomial-Dirichlet Ecological Inference Model for R x C Tables" in Kosuke Imai, Gary King, and Olivia Lau, "Zelig: Every-one's Statistical Software," http://gking.harvard.edu/zelig.

Word, David L. and Colby Perkins, Jr. 1996. Building a Spanish Surname List for the 1990s – a New Approach to an Old Problem. U.S. Bureau of the Census, Population Division. Technical Working Paper 13. March.

Respectfully submitted,

Kenneth R. Mayer

December 14, 2011

Tab 1

Kenneth R. Mayer
Curriculum Vitae

Professor of Political Science
Department of Political Science
Affiliate Faculty, La Follette School of Public Affairs
110 North Hall / 1050 Bascom Mall
University of Wisconsin - Madison
Madison, WI 53706

voice: 608-263-2286 / cell: 608-216-6554/ fax: 608-265-2663
kmayer@polisci.wisc.edu
http://www. polisci.wisc.edu/users/kmayer

Education
Ph.D. Yale University, 1988 (Political Science)
M.A., M.Phil. Yale University, 1987 (Political Science)
B.A. University of California, San Diego 1982 (Political Science)

Positions Held
Fulbright-ANU Distinguished Chair in Political Science, Australian National University (Canberra, ACT), July – December 2006.
Professor, Department of Political Science, University of Wisconsin-Madison, July 2000 – present
Director, Data and Computation Center, College of Letters and Science, University of Wisconsin-Madison, June 1996-September 2003
Associate Professor, Department of Political Science, University of Wisconsin-Madison, June 1996-June 2000.
Assistant Professor, Department of Political Science, University of Wisconsin-Madison, August 1989-June 1996.
Consultant, The RAND Corporation, Washington DC, 1988-1994. Conducted study of acquisition reform, and the effects of acquisition policy on the defense industrial base. Also performed computer simulations of U.S. strategic force posture and capabilities.
Contract Specialist, Naval Air Systems Command, Washington D.C., 1985-1986. Responsible for cost and price analysis, contract negotiation, and contract administration for aerial target missile programs in the $5 million - $100 million range.

Honors and Awards
Alliant Underkofler Excellence in Teaching Award, University of Wisconsin System, 2006
Pi Sigma Alpha Teaching Award, Fall 2006
Vilas Associate, 2003-2004, University of Wisconsin-Madison Graduate School.
2002 Neustadt Award (awarded by the Presidency Research Group of the American Political Science Association, for best book published on the American presidency in 2001). Awarded for *With the Stroke of a Pen.*
Lilly Teaching Fellow, University of Wisconsin-Madison, 1993-1994.

Interfraternity Council award for Outstanding Teaching, University of Wisconsin-Madison, 1993.
Selected as one of the 100 best professors at University of Wisconsin-Madison, Wisconsin Student Association, March 1992.
Olin Dissertation Fellow, Center for International Affairs, Harvard University, 1987-1988

Professional and Public Service

Expert Consultant and Witness, *County of Kenosha v. City of Kenosha* (redistricting dispute in the city of Kenosha, 2011)
Expert Consultant, *Voces de la Frontera* (Milwaukee Aldermanic Redistricting, 2011)
Expert Consultant, Prosser for Supreme Court (Wisconsin Supreme Court recount, 2011)
Consultant and Expert Witness, *McComish et al. v Brewer et al.* (Arizona campaign finance case, 2008-2009)
Chair, Blue Ribbon Commission on Clean Elections (Madison), August 2007-present
Consultant, Consulate of the Government of Japan (Chicago) on state politics in Illinois, Indiana, Minnesota, and Wisconsin, 2006-present.
Section head, Presidency Studies, 2006 Annual Meeting of the American Political Science Association.
Co-Chair, Committee on Redistricting, Supreme Court of Wisconsin, November 2003-December 2009
Section Head, Presidency and Executive Politics, 2004 Annual Meeting of the Midwest Political Science Association, Chicago, IL.
Presidency Research Group (organized section of the American Political Science Association) Board, September 2002-present
Consultant and Expert Witness, *Baumgart et al. v. Wendelberger et al.* (Wisconsin state legislative redistricting case, 2001-2002)
Book Review Editor, *Congress and the Presidency*, 2001-2006
Editorial Board, *American Political Science Review*, September 2001-September 2007

Books and Monographs

Mayer, Kenneth R. 2009. *2008 Election Data Collection Grant Program: Wisconsin Evaluation Report*. Report to the Wisconsin Government Accountability Board, September 2009. With Barry C. Burden, David T. Canon, Stéphane Lavertu, and Donald P. Moynihan.
-----, ed. 2011 *The Enduring Debate: Classic and Contemporary Readings in American Government.* 6th ed. New York: W.W. Norton & Co. (with David T. Canon and John Coleman). Forthcoming. Previous editions 1st (1997), 2nd (2000), 3rd (2002), 4th (2006) 5th (2009).
-----, ed. 2007. *Faultines: Readings in American Government*, 2nd ed. New York: W.W. Norton & Co. (with David T. Canon and John Coleman). Previous editions 1st (2004)
-----, ed. 2002. *Readings in American Government*, 7th edition. New York: W.W. Norton & Co. (with Theodore J. Lowi, Benjamin Ginsberg, David T. Canon, and John Coleman). Previous editions 4th (1996), 5th (1998), 6th (2000).
-----. 2001. *With the Stroke of a Pen: Executive Orders and Presidential Power*. Princeton,

NJ: Princeton University Press. Winner of the 2002 Neustadt Award.

-----. 1999. *The Dysfunctional Congress? The Individual Roots of an Institutional Dilemma.* Boulder, CO: Westview Press. (with David T. Canon). 2nd edition in process, expected publication date 2010.

-----. 1999. *Issue Advocacy in Wisconsin: Analysis of the 1998 Elections and A Proposal for Enhanced Disclosure.* September.

-----. 1998. *Public Financing and Electoral Competition in Minnesota and Wisconsin.* Citizens' Research Foundation. April.

-----. 1993. *The Development of the Advanced Medium Range Air-to-Air Missile: A Case Study of Risk and Reward in Weapon System Acquisition.* N-3620-AF. Santa Monica: RAND Corporation.

-----. 1992. *Barriers to Managing Risk in Large Scale Weapons System Development Programs.* N-4624-AF. Santa Monica: RAND Corporation (with Thomas K. Glennan, Jr., Susan J. Bodilly, Frank Camm, and Timothy J. Webb).

-----. 1991. *The Political Economy of Defense Contracting.* New Haven: Yale University Press.

Articles and Other Scholarly Papers

Mayer, Kenneth R. 2011. "Early Voting and Election Day Registration in the Trenches: Local Officials' Perceptions of Election Reform." *Election Law Journal* 10:89-102 (No. 2). With Barry C. Burden, David T. Canon, and Donald Moynihan.

-----. 2010. "Is Political Science Relevant? Ask an Expert Witness," *The Forum*: Vol. 8 : Iss. 3, Article 6. **DOI:** 10.2202/1540-8884.1391 **Available at:** http://www.bepress.com/forum/vol8/iss3/art6

-----. 2009. "Thoughts on the Revolution in Presidency Studies," *Presidential Studies Quarterly* 39 (no. 4, December)

-----. 2009. "Unilateral Action." George C. Edwards, III, and William G. Howell, *Oxford Handbook of the American Presidency* (New York: Oxford University Press, 2009)

-----. 2009. "Executive Orders," in Joseph Bessette and Jeffrey Tulis, *The Constitutional Presidency.* (Baltimore: Johns Hopkins University Press, 2009)

-----. 2008. "Does Australia Have a Constitution? Part I – Powers: A Constitution Without Constitutionalism." *UCLA Pacific Basin Law Journal* 25:228-264 (No. 2, Spring). With Howard Schweber.

-----. 2008. "Does Australia Have a Constitution? Part II: The Rights Constitution." *UCLA Pacific Basin Law Journal* 25:265-355 (No. 2, Spring). With Howard Schweber.

-----. 2007. "The Base Realignment and Closure Process: Is It Possible to Make Rational Policy?" Brademas Center for the Study of Congress, New York University.

-----. 2007 "Controlling Executive Authority in a Constitutional System" (comparative analysis of executive power in the U.S. and Australia), manuscript, February 2007.

-----. 2007. "Public Election Funding, Competition, and Candidate Gender." *PS: Political Science and Politics* XL:661-667 (No. 4,October). With Timothy Werner

-----. 2006. "Do Public Funding Programs Enhance Electoral Competition?" In Michael P. McDonald and John Samples, eds., *The Marketplace of Democracy: Electoral Competition and American Politics* (Washington, DC: Brookings Institution Press, 2006). With Timothy Werner and Amanda Williams. Excerpted in Daniel H. Lowenstein, Richard L. Hasen, and Daniel P. Tokaji, *Election Law: Cases and*

Materials (Durham, NC: Carolina Academic Press, 2008).
-----. 2005. "The Last 100 Days." *Presidential Studies Quarterly* 35:533-553 (No. 3, September). With William Howell.
-----. 2004. "The Return of the King? Presidential Power and the Law," *PRG Report* XXVI, No. 2 (Spring).
-----. 2003. "Political Reality and Unforeseen Consequences: Why Campaign Finance Reform is Too Important To Be Left To The Lawyers," *University of Richmond Law Review* 37:1069-1110 (No. 4, May).
-----. 2002. "Unilateral Presidential Powers: Significant Executive Orders, 1949-1999." *Presidential Studies Quarterly* 32:367-386 (No. 2, June). With Kevin Price.
-----. 2002. "Review Essay: Assessing The 2000 Presidential Election – Judicial and Social Science Perspectives." *Congress and the Presidency* 29: 91-98 (No. 1, Spring)
-----. 2001. "Answering Ayres: Requiring Campaign Contributors to Remain Anonymous Would Not Resolve Corruption Concerns." *Regulation* 24 (No. 4, Winter):24-29.
-----. 2001. "Presidential Emergency Powers." *Oxford Analytica Daily Brief*, December 18.
-----. 2001. "Hey, Wait a Minute: The Assumptions Behind the Case for Campaign Finance Reform." Gerald C. Lubenow, ed., *A User's Guide to Campaign Finance Reform* (Lanham, MD: Rowman & Littlefield).
-----. 2001. "Everything You Thought You Knew About Impeachment Was Wrong." Leonard V. Kaplan and Beverly I. Moran, ed., *Aftermath: The Clinton Impeachment and the Presidency in the Age of Political Spectacle* (New York: New York University Press). With David T. Canon.
-----. 2000. "Student Attitudes Toward Instructional Technology in the Large Introductory US Government Course." *PS: Political Science and Politics* 33: no. 3 (September). With John Coleman.
-----. 2000. "The Institutionalization of Power." Robert Y. Shapiro, Martha Joynt Kumar, and Lawrence R. Jacobs, ed. *Presidential Power: Forging the Presidency for the 21st Century* (New York: Columbia University Press). With Thomas J. Weko.
-----. 1999. "The Limits of Delegation – the Rise and Fall of BRAC." *Regulation* 22:32-38 (No. 3, October)
-----. 1999. "Executive Orders and Presidential Power." *The Journal of Politics* 61:445-466 (No. 2, May).
-----. 1997. *Campaign Finance Reform in the States*. Report prepared for and presented to the Governor's Blue Ribbon Commission on Campaign Finance Reform (State of Wisconsin). February. Portions reprinted in Anthony Corrado, Thomas E. Mann, Daniel R. Ortiz, Trevor Potter, and Frank J. Sorauf, ed. 1997. *Campaign Finance Reform: A Sourcebook* (Washington, D.C.: Brookings Institution)
----- 1996. "Bringing Politics Back In: Defense Policy and the Theoretical Study of Institutions and Processes." *Public Administration Review* 56:180-190 (with Anne Khademian).
-----. 1996. "Does Public Financing of Campaigns Work?" *Trends in Campaign Financing*, no. 3. Occasional Paper Series, Citizens' Research Foundation, Los Angeles, CA (with John M. Wood).
-----. 1995. "Closing Military Bases (Finally): Solving Collective Dilemmas Through Delegation." *Legislative Studies Quarterly*, 20:393-414.
-----. 1995. "Electoral Cycles in Federal Government Prime Contract Awards: State-Level

Evidence from the 1988 and 1992 Presidential Elections." *American Journal of Political Science* 40:162-185.

-----. 1995. "The Impact of Public Financing on Electoral Competitiveness: Evidence from Wisconsin, 1964-1990." *Legislative Studies Quarterly* 20:69-88 (with John M. Wood).

-----. 1993. "Policy Disputes as a Source of Administrative Controls: Congressional Micromanagement of the Department of Defense," *Public Administration Review* 53:293-302.

-----. 1993. "Congressional-DoD Relations After the Cold War: The Politics of Uncertainty," in *Downsizing Defense*, Ethan Kapstein ed. Washington DC: Congressional Quarterly Press.

-----. 1993. "Combat Aircraft Production in the United States, 1950-2000: Maintaining Industry Capability in an Era of Shrinking Budgets." *Defense Analysis* 9:159-169.

-----. 1991. "Elections, Business Cycles, and the Timing of Defense Contract Awards in the United States," in *The Political Economy of Military Spending*, Alex Mintz ed. London: Routledge.

-----. 1990. "Patterns of Congressional Influence In Defense Contracting," in *Arms, Politics, and the Economy: Contemporary and Historical Perspectives*, Robert Higgs ed. New York: Holmes and Meier.

Other Publications and Book Reviews

Kenneth R. Mayer. 2011. Review of Jason K. Dempsey, *Our Army: Soldiers, Politicians, and American Civil-Military Relations*. *The Forum* 9 (No. 3). Available at: http://www.bepress.com/forum/vol9/iss3/art10

------. 2010. "Voting Early, but Not Often." *New York Times*, October 25. With Barry C. Burden

------. 2008. Review of John Samples, *The Fallacy of Campaign Finance Reform* and Raymond J. La Raja, *Small Change: Money, Political Parties, and Campaign Finance Reform* , in *The Forum* 6 (No. 1). Available at http://www.bepress.com/forum/vol6/iss1/art18/

-----. 2007. Review Essay, *Executing the Constitution: Putting the President Back Into the Constitution*, Christopher S, Kelley, ed; *Presidents in Culture: The Meaning of Presidential Communication*, David Michael Ryfe; *Executive Orders and the Modern Presidency: Legislating from the Oval Office*, Adam L. Warber. In *Perspective on Politics* 5:635-637 (No. 3, September)

-----. 2006. "Campaigns, Elections, and Campaign Finance Reform." *Focus on Law Studies*, XXI, No. 2 (Spring 2006). American Bar Association, Division for Public Education.

-----. 2006. Issue Briefs (Midterm Elections, Homeland Security; Foreign Affairs and Defense Policy; Education; Budget and Economy; Entitlement Reform) *2006 Reporter's Source Book*. Project Vote Smart. With Meghan Condon.

-----. 2006. , "Sunlight as the Best Disinfectant: Campaign Finance in Australia." Democratic Audit of Australia, Australian National University, October.

-----. 2006. "Return to the Norm," *Brisbane Courier-Mail*, November 10.

-----. 2004. Issue Briefs (Campaign Finance Reform, Homeland Security; Foreign Affairs and Defense Policy; Education; Budget and Economy; Entitlement Reform), *2004 Reporter's Source Book*. Project Vote Smart. With Patricia Strach and Arnold Shober.

-----. 2004. "Where's That Crystal Ball When You Need It? Finicky Voters and Creaky Campaigns Made for a Surprise Electoral Season. And the Fun's Just Begun." *Madison Magazine*. April.

-----. 2002. "Capitol Overkill." *Madison Magazine*, July.

-----. 2002. Issue Briefs (Homeland Security; Foreign Affairs and Defense Policy; Education; Economy, Budget and Taxes; Social Welfare Policy), *2002 Reporter's Source Book*. Project Vote Smart. With Patricia Strach and Paul Manna.

-----. 1999. "An Analysis of the Issue of Issue Ads." Guest Column Op-ed. *Wisconsin State Journal*, November 7.

-----. 1999. "Background of Issue Ad Controversy." Guest Column Op-ed. *Wisconsin State Journal*, November 7.

-----. 1999. "Eliminating Public Funding Reduces Election Competition." Guest Column Op-ed. *Wisconsin State Journal*, June 27.

-----. 1998. Review of *Executive Privilege: The Dilemma of Secrecy and Democratic Accountability*, by Mark J. Rozell. *Congress and the Presidency*, 25.

-----. 1996. "Like Marriage, New Presidency Starts In Hope." *Wisconsin State Journal*. March 31.

-----. 1994. Review of *The Tyranny of the Majority: Fundamental Fairness in Representative Democracy*, by Lani Guinier. *Congress and the Presidency* 21: 149-151.

-----. 1994. Review of *The Best Defense: Policy Alternatives for U.S. Nuclear Security From the 1950s to the 1990s*, by David Goldfischer. *Science, Technology, and Environmental Politics Newsletter* 6.

-----. 1993. Review of *The Strategic Defense Initiative*, by Edward Reiss. *American Political Science Review* 87: 1061-1062

-----. 1993. Review of *The Political Economy of Defense: Issues and Perspectives*, Andrew L. Ross ed. *Armed Forces and Society* 19:460-462.

-----. 1993. Review of *Space Weapons and the Strategic Defense Initiative*, by Crockett Grabbe. *Annals of the American Academy of Political and Social Science* 527: 193-194.

-----. 1992. "Limits Wouldn't Solve the Problem." Guest Column Op-ed. *Wisconsin State Journal*, November 5 (with David T. Canon).

-----. 1992. "Convention Ceded Middle Ground." Guest Column Op-ed. *Wisconsin State Journal*, August 23.

-----. 1992. "CBS Economy Poll Meaningless." Guest Column Op-ed. *Wisconsin State Journal*, February 3.

-----. 1988. "It's a Matter of Character: Pentagon Doesn't Need New Laws, it Needs Good People." Op-ed. *Los Angeles Times*, July 8.

Convention and Conference Papers

Mayer, Kenneth R. 2010. "Election Laws, Mobilization, and Turnout: The Unanticipated Consequences of Election Reform." With Barry C. Burden, David T. Canon, Stéphane Lavertu and Donald P. Moynihan. Presented at the 2010 Annual Meeting of the American Political Science Association, Washington, DC, September 2-5.

-----. 2010. "Selection Methods, Partisanship, and the Administration of Elections." With Barry C. Burden, David T. Canon, Stéphane Lavertu and Donald P. Moynihan. Paper presented at the 2010 Annual Meeting of the Midwest Political Science Association,

Chicago, IL, April 22-25. Revised version presented at the 2011 Annual Meeting of the European Political Science Association, June 16-19, Dublin, Ireland.

-----. 2009. "The Effects and Costs of Early Voting, Election Day Registration, and Same Day Registration in the 2008 Elections." With Barry C. Burden, David T. Canon, and Donald P. Moynihan. Paper presented at the 2009 Annual Meeting of the American Political Science Association, Toronto, Canada, September 3-5.

-----. 2007. "Comparative Election Administration: Can We Learn Anything From the Australian Electoral Commission?" Paper presented at the 2007 Annual Meeting of the American Political Science Association, Chicago, IL, August 29-September 1.

-----. 2007. "Electoral Transitions in Connecticut: Implementation of Public Funding for State Legislative Elections." Paper presented at the 2007 Annual Meeting of the American Political Science Association, Chicago, IL, August 29-September 1. With Timothy Werner.

-----. 2005. "Candidate Gender and Participation in Public Campaign Finance Programs." Paper delivered at the 2005 Annual Meeting of the Midwest Political Science Association, Chicago IL, April 7-10, 2005. With Timothy Werner.

-----. 2004. "Do Public Funding Programs Enhance Electoral Competition?" Paper delivered at the 4th Annual State Politics and Policy Conference," April 30-May 1, Akron, OH. With Timothy Werner and Amanda Williams. Updated April 2005.

-----. 2003. "The Last 100 Days." Presented at the 2003 Annual Meeting of the American Political Science Association, August 28-31, Philadelphia PA.

-----. 2000. "Hey, Wait a Minute: The Assumptions Behind the Case for Campaign Finance Reform." Paper presented at the Citizens' Research Foundation Forum on Campaign Finance Reform, Institute for Governmental Studies, University of California Berkeley. August.

-----. 1996. "The Importance of Moving First: Presidential Initiative and Executive Orders." Presented at the 1996 Annual Meeting of the American Political Science Association, San Francisco, CA, August 28-September 1

-----. 1993. "Department of Defense Contracts, Presidential Elections, and the Political-Business Cycle." Presented at the 1993 Annual Meeting of the American Political Science Association, Washington, DC, September 2-5.

-----. 1993. " Informational vs. Distributive Theories of Legislative Organization: Committee Membership and Defense Policy in the House." Presented at the 1993 Annual Meeting of the American Political Science Association, Washington, DC, September 2-5.

-----. 1991. "Problem? What Problem? Congressional Micromanagement of the Department of Defense." Presented at the 1991 Annual Meeting of the American Political Science Association, Washington DC, August 29 - September 2.

Grants and Research Activities

" Study and Recommendations for the Government Accountability Board Chief Inspectors' Statements and Election Incident Report Logs." $43,234. Co-PI. With Barry C. Burden (PI), David T. Canon (co-PI), and Donald Moynihan (co-PI). October 2011-May 2012.

"Public Funding in Connecticut Legislative Elections." Open Society Institute. September 2009- December 2010. $55,000.

"Early Voting and Same Day Registration in Wisconsin and Beyond." Co-PI. October 2008-September 2009. Pew Charitable Trusts. $49,400. With Barry C. Burden (PI), David T. Canon (Co-PI), Kevin J. Kennedy (Co-PI), and Donald P. Moynihan (Co-PI).

City of Madison, Blue Ribbon Commission on Clean Elections. Joyce Foundation, Chicago, IL. $16,188. January-July 2008.

"Wisconsin Campaign Finance Project: Public Funding in Connecticut State Legislative Elections." JEHT Foundation, New York, NY $84,735. November 2006-November 2007.

"Does Public Election Funding Change Public Policy? Evaluating the State of Knowledge." JEHT Foundation, New York, NY. $42,291. October 2005-April 2006.

"The Wisconsin Campaign Finance Project: Disseminating Data to the Academic, Reform, and Policy Communities." Joyce Foundation, Chicago, IL. $20,900. September 2005-August 2006.

"Enhancing Electoral Competition: Do Public Funding Programs for State and Local Elections Work?" Smith Richardson Foundation, Westport, CT. $129,611. December 2002-June 2005

WebWorks Grant (implementation of web-based instructional technologies), Division of Information Technology, UW-Madison, $1,000. November 1999.

"Issue Advocacy in Wisconsin during the 1998 Election." Joyce Foundation, Chicago, IL. $15,499. April 1999.

Instructional Technology in the Multimedia Environment (IN-TIME) grant, Learning Support Services, University of Wisconsin. $5,000. March 1997.

"Public Financing and Electoral Competitiveness in the Minnesota State Legislature." Citizens' Research Foundation, Los Angeles, CA, $2,000. May-November 1996.

"The Reach of Presidential Power: Policy Making Through Executive Orders." Graduate School Research Committee, University of Wisconsin, $21,965. July 1, 1995-August 31,1995. National Science Foundation (SBR-9511444), $60,004. September 1, 1995 - August 31, 1998. Additional support provided by the Gerald R. Ford Library Foundation, the Eisenhower World Affairs Institute, and the Harry S. Truman Library Foundation.

"The Future of the Combat Aircraft Industrial Base." Changing Security Environment Project, John M. Olin Institute for Strategic Studies, Harvard University (with Ethan B. Kapstein). June 1993-January 1995. $15,000.

Hilldale Student Faculty Research Grant, College of Letters and Sciences, University of Wisconsin (with John M. Wood). 1992. Amount: $1,000 ($3,000 award to student)

"Electoral Cycles in Federal Government Prime Contract Awards," March 1992 - February 1995. National Science Foundation (SES-9121931), the Graduate School Research Committee at the University of Wisconsin, and the MacArthur Foundation. Amounts: National Science Foundation, $74,216; Graduate School Research Committee: $2,600; MacArthur Foundation, $2,500

C-SPAN In the Classroom Faculty Development Grant, 1991. $500

Professional Activities

Panel Participant, "Redistricting in the 2010 Cycle," Midwest Democracy Network,

Speaker, "Redistricting and Election Administration," Dane County League of Women Voters,

March 4, 2010

Keynote Speaker, "Engaging the Electorate: The Dynamics of Politics and Participation in 2008." Foreign Fulbright Enrichment Seminar, Chicago, IL, March 2008.

Participant, Election Visitor Program, Australian Electoral Commission, Canberra, ACT. November 2007.

Invited Talk, "Public Funding in State and Local Elections." Reed College Public Policy Lecture Series. Portland, Oregon, March 19, 2007.

Fulbright Distinguished Chair Lecture Tour, 2006. Public lectures on election administration and executive power. University of Tasmania, Hobart (TAS); Flinders University and University of South Australia, Adelaide (SA); University of Melbourne, Melbourne (VIC); University of Western Australia, Perth (WA); Griffith University and University of Queensland, Brisbane (QLD); Institute for Public Affairs, Sydney (NSW); The Australian National University, Canberra (ACT)

Discussant, "Both Ends of the Avenue: Congress and the President Revisited," 2004 American Political Science Association Meeting, September 2-5, 2004, Chicago, IL.

Presenter, "Researching the Presidency," Short Course, 2004 American Political Science Association Meeting, September 2-5, 2004, Chicago, IL.

Discussant, Conference on Presidential Rhetoric, Texas A&M University, February 2004, College Station, TX

Presenter, "Author Meets Author: New Research on the Presidency," 2004 Southern Political Science Association Meeting, January 8-11, New Orleans, LA.

Chair, "Presidential Secrecy," 2003 American Political Science Association Meeting, August 28-31, Philadelphia, PA

Discussant, "New Looks at Public Approval of Presidents." 2003 Midwest Political Science Association Meeting, April 3-6, 2003, Chicago, IL

Discussant, "Presidential Use of Strategic Tools." 2002 American Political Science Association Meeting, August 28-September 1, 2002, Boston, MA

Chair and Discussant, "Branching Out: Congress and the President." 2001 Midwest Political Science Association Meeting, April 19-22, 2001, Chicago, IL

Invited witness, Committee on the Judiciary, Subcommittee on Commercial and Administrative Law, U.S. House of Representatives. *Hearing on Executive Orders and Presidential Power*, Washington, DC. March 22, 2001

Invited Presenter, "The History of the Executive Order," Miller Center for Public Affairs, University of Virginia (with Griffin Bell and Will Howell), January 26, 2001

Presenter and Discussant, Future Voting Technologies Symposium (meeting organized by Dane County Clerk's Office), Madison, WI May 2, 2000

Moderator, Panel on Electric Utility Reliability. Assembly Staff Leadership Development Seminar, Madison, WI. August 11, 1999

Chair, Panel on "Legal Aspects of the Presidency: Clinton and Beyond." 1999 Midwest Political Science Association Annual Meeting, April 15-17, Chicago, IL

Consultant, Governor's Blue Ribbon Commission on Campaign Finance Reform. State of Wisconsin. 1997

Session Moderator, National Performance Review Acquisition Working Summit, Milwaukee, WI, June 1995

Invited Speaker, American Politics Seminar, The George Washington University, Washington

D.C., April 1995.
Invited speaker, Defense and Arms Control Studies Program, Massachusetts Institute of Technology, Cambridge, MA, March 1994.
Discussant, International Studies Association (Midwest Chapter) Annual Meeting, Chicago IL, October 29-30, 1993
Invited speaker, Seminar on American Politics, Princeton University, January 16-17,1992
Participant, Conference on Defense Downsizing and Economic Conversion, October 4, 1991, Harvard University.
Participant, Conference on Congress and New Foreign and Defense Policy Challenges, The Ohio State University, Columbus OH, September 21-22, 1990, and September 19-21, 1991.
Presenter, "A New Look at Short Term Change in Party Identification," 1990 Meeting of the American Political Science Association, San Francisco, CA.
Journal Manuscript Reviewer: *American Political Science Review, American Journal of Political Science, Journal of Politics, Political Research Quarterly, Legislative Studies Quarterly, International Studies Quarterly, Public Administration Review, Journal of Policy History*
Peer Reviewer, National Science Foundation; Carnegie Corporation

Department and University Service
General Education Requirements Committee (Letters and Science)
Communications-B Implementation Committee(Letters and Science)
Curriculum Committee (Letters and Science)
Verbal Assessment Committee (University)
Institutional Review Board (Human Subjects, Letters and Science). 2009- present. Acting Chair, Summer 2011.
Faculty Appeals Committee (for students dismissed for academic reasons)
Committee on Information Technology, Distance Education and Outreach, 1997-98.
Hilldale Faculty-Student Research Grants, Evaluation Committee, 1997, 1998
Department Computer Committee, 1996-1997; 1997-1998, 2005-2006.
Faculty Senate Delegate, 2000-2001, 2001-2002, 2002-2005. Alternate Delegate, Department of Political Science, 1994-1995; 1996-1997; 1997-1998, 1998-1999
Preliminary Exam Appeals Committee, Department of Political Science, 1994-1995
Faculty Advisor, Pi Sigma Alpha (Political Science Honors Society), 1993-1994
Department Honors Advisor, 1991-1992; 1992-1993
Brown-bag Seminar Series on Job Talks (for graduate students), 1992
Keynote speaker, Undergraduate Honors Symposium, April 13 1991
Brown Bag Seminar on the Persian Gulf War, Medical Scholars Program, February 15 1991
Undergraduate Curriculum Committee, Department of Political Science, 1990-1991; 1991-1992; 1993-1994
Individual Majors Committee, College of Letters and Sciences, 1990-1991
Dean Reading Room Committee, Department of Political Science, 1989-1990; 1994-1995

Teaching

Undergraduate: Introduction to American Government; Honors Introduction to American Government; Legislative Process; The American Presidency; Theories of Legislative Organization; Defense and Foreign Policy; Classics of American Politics; Senior Honors Thesis Seminar; Campaign Finance; Election Law; Presidential Debates; Comparative Electoral Systems

Graduate: Contemporary Presidency; Legislative Process; American National Institutions

Tab 2

Exhibit 2 – Population Shifts in Assembly Districts

[1]	[2]	[3]	[4]	[5]	[6]	[6]	[7]	[8]
1)	A 2002 Districts	Population Shift Required	Actual Population Change	Population Added	Population Subtracted	Total Population Shift	Ratio of Total Population Shift to Required Shift	New District Population
1	54,189	-3,255	3,031	3,044	13	3,057	1.0	57,220
2	61,009	3,565	-3,360	20,115	23,475	43,590	13.0	57,649
3	65,789	8,345	-8,345	3,014	11,359	14,373	1.7	57,444
4	54,953	-2,491	2,533	25,464	22,931	48,395	19.1	57,486
5	61,133	3,689	-3,663	11,883	15,546	27,429	7.5	57,470
6	55,963	-1,481	1,542	23,324	21,782	45,106	29.3	57,505
7	55,825	-1,619	1,673	39,742	38,069	77,811	46.5	57,498
8	54,616	-2,828	2,642	25,590	22,948	48,538	18.4	57,258
9	60,880	3,436	-3,659	28,689	32,348	61,037	16.7	57,221
10	51,419	-6,025	6,009	19,333	13,324	32,657	5.4	57,428
11	52,178	-5,266	5,325	30,013	24,688	54,701	10.3	57,503
12	55,275	-2,169	2,219	27,680	25,461	53,141	23.9	57,494
13	53,867	-3,577	3,585	43,406	39,821	83,227	23.2	57,452
14	52,656	-4,788	4,941	36,975	32,034	69,009	14.0	57,597
15	53,448	-3,996	3,924	30,223	26,299	56,522	14.4	57,372
16	52,510	-4,934	4,948	18,097	13,149	31,246	6.3	57,458
17	51,861	-5,583	5,493	22,128	16,635	38,763	7.1	57,354
18	48,387	-9,057	9,093	23,770	14,677	38,447	4.2	57,480
19	56,827	-617	719	6,698	5,979	12,677	17.6	57,546
20	54,999	-2,445	2,429	11,661	9,232	20,893	8.6	57,428
21	60,177	2,733	-2,728	1,842	4,570	6,412	2.4	57,449
22	53,017	-4,427	4,478	57,495	53,017	110,512	24.7	57,495
23	55,249	-2,195	2,330	36,323	33,993	70,316	30.2	57,579
24	57,065	-379	217	29,936	29,719	59,655	274.9	57,282
25	53,380	-4,064	3,942	6,689	2,747	9,436	2.4	57,322
26	52,702	-4,742	4,879	24,731	19,852	44,583	9.1	57,581
27	56,118	-1,326	1,418	22,597	21,179	43,776	30.9	57,536
28	59,273	1,829	-1,806	1,414	3,220	4,634	2.6	57,467
29	66,814	9,370	-9,277	1,974	11,251	13,225	1.4	57,537
30	66,560	9,116	-9,319	6,929	16,248	23,177	2.5	57,241
31	61,755	4,311	-4,515	43,674	48,189	91,863	20.3	57,240
32	60,157	2,713	-2,633	12,367	15,000	27,367	10.4	57,524
33	59,460	2,016	-1,895	52,868	54,763	107,631	56.8	57,565
34	53,812	-3,632	3,575	7,718	4,143	11,861	3.3	57,387
35	52,716	-4,728	4,846	8,056	3,210	11,266	2.3	57,562
36	50,788	-6,656	6,644	22,760	16,116	38,876	5.9	57,432
37	58,965	1,521	-1,458	50,684	52,142	102,826	70.5	57,507
38	59,797	2,353	-2,304	41,512	43,816	85,328	37.0	57,493
39	56,515	-929	872	11,850	10,978	22,828	26.2	57,387
40	55,223	-2,221	2,143	13,001	10,858	23,859	11.1	57,366
41	55,581	-1,863	1,756	28,764	27,008	55,772	31.8	57,337
42	57,975	531	-690	47,843	48,533	96,376	139.7	57,285
43	57,584	140	-141	12,491	12,632	25,123	178.2	57,443
44	53,057	-4,387	4,338	4,430	92	4,522	1.0	57,395
45	59,610	2,166	-1,952	28,227	30,179	58,406	29.9	57,658
46	65,835	8,391	-8,377	51	8,428	8,479	1.0	57,458
47	61,700	4,256	-4,235	57,465	61,700	119,165	28.1	57,465
48	61,400	3,956	-3,894	32,312	36,206	68,518	17.6	57,506
49	55,456	-1,988	1,890	2,469	579	3,048	1.6	57,346
50	59,182	1,738	-1,558	1,340	2,898	4,238	2.7	57,624

[1]	[2]	[3]	[4]	[5]	[6]	[6]	[7]	[8]
AD	2002 Districts	Population Shift Required	Actual Population Change	Population Added	Population Subtracted	Total Population Shift	Ratio of Total Population Shift to Required Shift	New District Population
51	57,753	309	-173	18,280	18,453	36,733	212.3	57,580
52	56,377	-1,067	855	10,006	9,151	19,157	22.4	57,232
53	59,677	2,233	-2,437	9,230	11,667	20,897	8.6	57,240
54	54,863	-2,581	2,387	2,443	56	2,499	1.0	57,250
55	54,157	-3,287	3,336	27,880	24,544	52,424	15.7	57,493
56	67,841	10,397	-10,259	20,057	30,316	50,373	4.9	57,582
57	53,999	-3,445	3,502	24,544	21,042	45,586	13.0	57,501
58	60,111	2,667	-2,884	6,629	9,513	16,142	5.6	57,227
59	58,855	1,411	-1,464	30,720	32,184	62,904	43.0	57,391
60	57,434	-10	-49	17,594	17,643	35,237	719.1	57,385
61	51,968	-5,476	5,646	57,614	51,968	109,582	19.4	57,614
62	55,886	-1,558	1,459	52,442	50,983	103,425	70.9	57,345
63	58,881	1,437	-1,516	34,205	35,721	69,926	46.1	57,365
64	56,844	-600	426	29,244	28,818	58,062	136.3	57,270
65	61,608	4,164	-4,153	28,818	32,971	61,789	14.9	57,455
66	61,567	4,123	-4,022	57,545	61,567	119,112	29.6	57,545
67	58,722	1,278	-1,600	3,529	5,129	8,658	5.4	57,122
68	59,129	1,685	-1,868	31,611	33,479	65,090	34.8	57,261
69	59,102	1,658	-1,453	17,855	19,308	37,163	25.6	57,649
70	53,904	-3,540	3,648	32,418	28,770	61,188	16.8	57,552
71	57,415	-29	104	6,298	6,194	12,492	120.1	57,519
72	55,764	-1,680	1,685	14,960	13,275	28,235	16.8	57,449
73	54,962	-2,482	2,491	4,440	1,949	6,389	2.6	57,453
74	52,623	-4,821	4,871	18,777	13,906	32,683	6.7	57,494
75	54,961	-2,483	2,501	6,724	4,223	10,947	4.4	57,462
76	61,547	4,103	-3,930	50,653	54,583	105,236	26.8	57,617
77	51,957	-5,487	5,476	34,916	29,440	64,356	11.8	57,433
78	55,031	-2,413	2,515	57,546	55,031	112,577	44.8	57,546
79	76,164	18,720	-18,703	39,380	58,083	97,463	5.2	57,461
80	60,352	2,908	-2,767	31,625	34,392	66,017	23.9	57,585
81	61,351	3,907	-3,948	53,984	57,932	111,916	28.3	57,403
82	60,035	2,591	-2,605	10,715	13,320	24,035	9.2	57,430
83	61,206	3,762	-3,783	11,867	15,650	27,517	7.3	57,423
84	56,225	-1,219	1,140	38,389	37,249	75,638	66.3	57,365
85	54,856	-2,588	2,624	8,939	6,315	15,254	5.8	57,480
86	59,763	2,319	-2,309	10,903	13,212	24,115	10.4	57,454
87	52,712	-4,732	4,646	18,874	14,228	33,102	7.1	57,358
88	58,089	645	-533	29,991	30,524	60,515	113.5	57,556
89	58,999	1,555	-1,365	10,224	11,589	21,813	16.0	57,634
90	56,344	-1,100	1,264	30,418	29,154	59,572	47.1	57,608
91	56,651	-793	708	57,359	56,651	114,010	161.0	57,359
92	58,694	1,450	-1,463	40,682	42,145	82,827	56.6	57,431
93	57,822	378	-274	36,918	37,192	74,110	270.5	57,548
94	62,641	5,197	-5,375	1,178	6,553	7,731	1.4	57,266
95	53,996	-3,446	3,374	4,552	1,178	5,730	1.7	57,372
96	55,740	-1,704	1,744	5,457	3,713	9,170	5.3	57,484
97	57,299	-145	-20	13,524	13,544	27,068	1353.4	57,279
98	58,450	-994	1,063	35,690	34,627	70,317	66.1	57,513
99	63,750	6,306	-6,254	45,467	51,721	97,188	15.5	57,496

Tab 3

Exhibit 3 – Population Shifts in Senate Districts

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
SD	2002 District Population	Population Change Required	Actual Population Change	Population Added	Population Subtracted	Total Population Shift	Shift/change ratio	New District Population
1	180989	8,656	8676	20117	28793	48910	5.7	172313
2	172047	-266	-414	49705	49291	98996	346.1	172461
3	171321	-1,012	-656	40209	39553	79762	78.8	171977
4	158872	-13,461	-13553	38717	25164	63881	4.7	172425
5	159971	-12,362	-12450	54659	42209	96868	7.8	172421
6	152758	-19,575	-19534	22795	3261	26056	1.3	172292
7	172003	-330	-420	13741	13321	27062	82.0	172423
8	165331	-7,002	-7025	46064	39039	85103	12.2	172356
9	162200	-10,133	-10239	23152	12913	36065	3.6	172439
10	192647	20,314	20402	2809	23211	26020	1.3	172245
11	181372	9,039	9043	72563	81606	154169	17.1	172329
12	157316	-15,017	-15065	24705	9640	34345	2.3	172381
13	175277	2,944	2890	40182	43072	83254	28.3	172387
14	168779	-3,554	-3209	55689	52480	108169	30.4	171988
15	170251	-2,082	-2245	30919	28674	59593	26.6	172496
16	188935	16,602	16506	60283	76789	137072	8.3	172429
17	172391	58	-159	19666	19507	39173	675.4	172550
18	170917	-1,416	-805	805	0	805	0.6	171722
19	175997	3,664	3421	133	3554	3687	1.0	172576
20	176400	4,067	4397	31816	36213	68029	16.7	172003
21	165735	-5,598	-5589	72431	66842	139273	24.9	172324
22	180019	7,686	7749	66837	74586	141423	18.4	172270
23	176953	4,620	4921	32335	37256	69591	15.1	172032
24	167083	-5,250	-5437	42379	36942	79321	15.1	172520
25	162546	-9,787	-9863	24604	14741	39345	4.0	172409
26	168528	-3,805	-4068	29547	25479	55026	14.5	172596
27	197874	25,541	25425	69372	94797	164169	6.4	172449
28	177466	5,133	5248	38832	44080	82912	16.2	172218
29	167331	-5,002	-4961	24385	19424	43809	8.8	172292
30	173432	1,099	634	31847	32481	64328	58.5	172798
31	173367	1,034	1029	50132	51161	101293	98.0	172338
32	172379	46	257	3458	3715	7173	155.9	172122
33	177499	5,166	5211	70328	75539	145867	28.2	172288

Tab 4

Exhibit 4 – Core District Population Retention – Assembly

District	Unchanged Core	Tot Population of New Dist	Core Pop Retention	Inc Party
1	54176	57220	94.7%	R
2	37534	57649	65.1%	R
3	54430	57444	94.8%	R
4	32022	57486	55.7%	R
5	45587	57470	79.3%	R
6	34181	57505	59.4%	R
7	17756	57498	30.9%	D
8	31668	57258	55.3%	D
9	28532	57221	49.9%	D
10	38095	57428	66.3%	D
11	27490	57503	47.8%	D
12	29814	57494	51.9%	D
13	14046	57452	24.4%	D
14	20622	57597	35.8%	R
15	27149	57372	47.3%	D
16	39361	57458	68.5%	D
17	35226	57354	61.4%	D
18	33710	57480	58.6%	D
19	50848	57546	88.4%	D
20	45767	57428	79.7%	D
21	55607	57449	96.8%	R
22	28069	57495	48.8%	D
23	21256	57579	36.9%	R
24	27346	57282	47.7%	R
25	50633	57322	88.3%	I
26	32850	57581	57.1%	R
27	34939	57536	60.7%	R
28	56053	57467	97.5%	R
29	55563	57537	96.6%	R
30	50312	57241	87.9%	R
31	13566	57240	23.7%	R
32	45157	57524	78.5%	R
33	4697	57565	8.2%	R
34	49669	57387	86.6%	R
35	49506	57562	86.0%	R
36	34672	57432	60.4%	R
37	6823	57507	11.9%	D
38	15981	57493	27.8%	R

39	45537	57387	79.4%	R
40	44365	57366	77.3%	R
41	28573	57337	49.8%	R
42	9442	57285	16.5%	D
43	44952	57443	78.3%	R
44	52965	57395	92.3%	R
45	29431	57658	51.0%	R
46	57407	57458	99.9%	D
47	26771	57465	46.6%	R
48	25194	57506	43.8%	D
49	54877	57346	95.7%	R
50	56284	57624	97.7%	R
51	39300	57580	68.3%	R
52	47226	57232	82.5%	R
53	48010	57240	83.9%	R
54	54807	57250	95.7%	D
55	29613	57493	51.5%	R
56	34525	57582	60.0%	R
57	32957	57501	57.3%	D
58	50598	57227	88.4%	R
59	26671	57391	46.5%	R
60	39791	57385	69.3%	R
61	36834	57614	63.9%	D
62	4903	57345	8.6%	D
63	23160	57365	40.4%	R
64	28026	57270	48.9%	D
65	28637	57455	49.8%	D
66	34343	57545	59.7%	R
67	53593	57122	93.8%	R
68	25650	57261	44.8%	R
69	39794	57649	69.0%	R
70	25134	57552	43.7%	D
71	51221	57519	89.1%	D
72	42489	57449	74.0%	R
73	53013	57453	92.3%	D
74	38717	57494	67.3%	D
75	50738	57462	88.3%	R
76	6964	57617	12.1%	D
77	22517	57433	39.2%	D
78	20108	57546	34.9%	D
79	18081	57461	31.5%	D
80	25690	57585	44.6%	D
81	3419	57403	6.0%	D
82	56715	57430	98.8%	R
83	45556	57423	79.3%	R

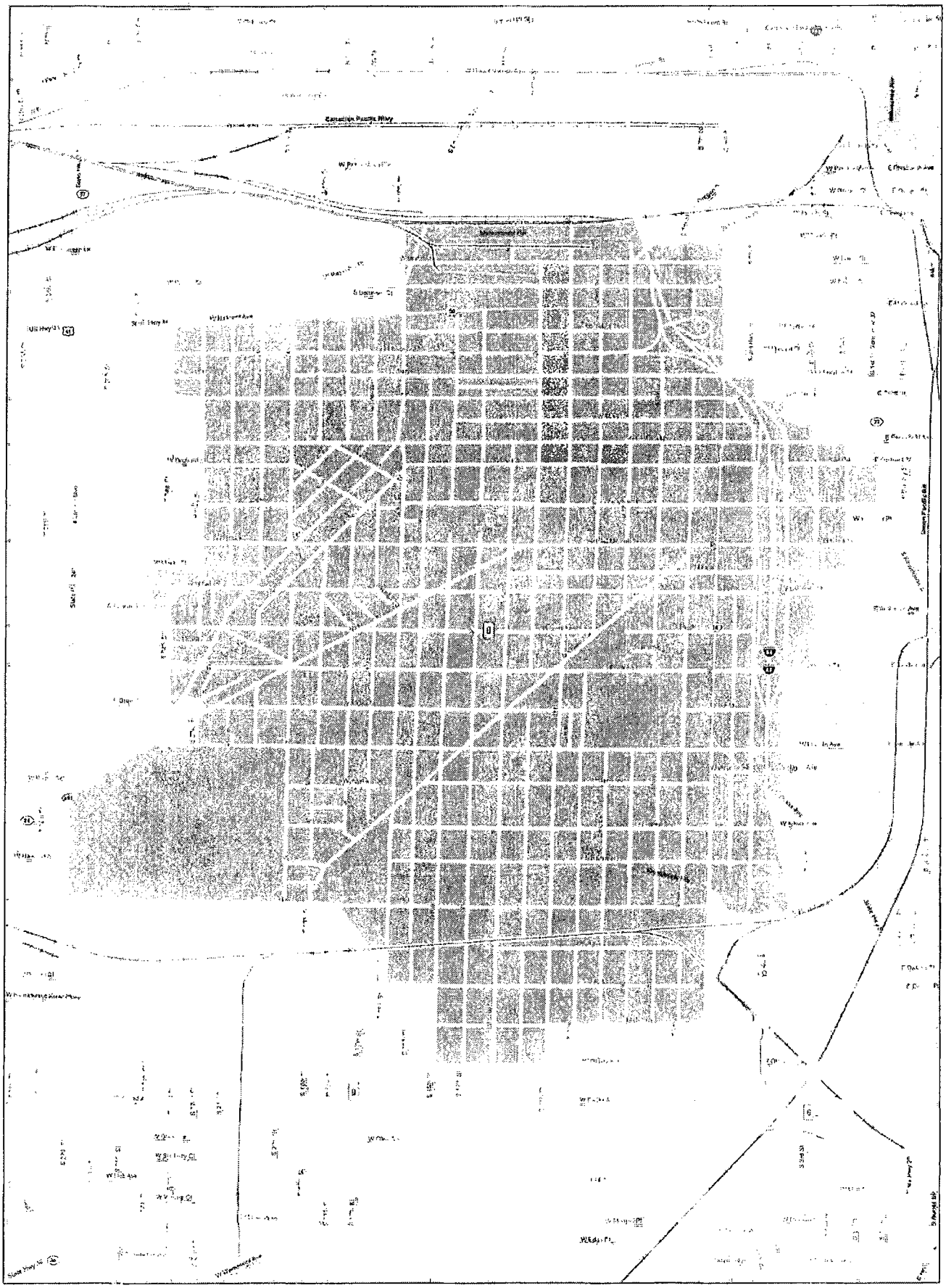
84	18976	57365	33.1%	R
85	48541	57480	84.4%	D
86	46551	57454	81.0%	R
87	38484	57358	67.1%	R
88	27565	57556	47.9%	R
89	47410	57634	82.3%	R
90	27190	57608	47.2%	R
91	30687	57359	53.5%	D
92	16749	57431	29.2%	D
93	20630	57548	35.8%	R
94	56088	57266	97.9%	D
95	52820	57372	92.1%	D
96	52027	57484	90.5%	R
97	43755	57279	76.4%	R
98	21823	57513	37.9%	R
99	12029	57496	20.9%	R

Tab 5

Exhibit 5 – Core District Population Retention, Senate

Districrt	Unchanged Core	Total Population of New District	Core Pop Retention	Inc. Party
1	152196	172313	88.3%	R
2	122756	172461	71.2%	R
3	131768	171977	76.6%	D
4	133708	172425	77.5%	D
5	117762	172421	68.3%	R
6	149497	172292	86.8%	D
7	158682	172423	92.0%	D
8	126292	172356	73.3%	R
9	149287	172439	86.6%	R
10	169436	172245	98.4%	R
11	99766	172329	57.9%	R
12	147676	172381	85.7%	D
13	132205	172387	76.7%	R
14	116299	171988	67.6%	R
15	141577	172496	82.1%	D
16	112146	172429	65.0%	D
17	152884	172550	88.6%	R
18	170917	171722	99.5%	R
19	172443	172576	99.9%	R
20	140187	172003	81.5%	R
21	99893	172324	58.0%	R
22	125777	172270	73.0%	D
23	139697	172032	81.2%	R
24	130141	172520	75.4%	D
25	147805	172409	85.7%	D
26	143049	172596	82.9%	D
27	103077	172449	59.8%	D
28	133386	172218	77.5%	R
29	147907	172292	85.8%	R
30	140951	172798	81.6%	D
31	122206	172338	70.9%	D
32	168664	172122	98.0%	R
33	101960	172288	59.2%	R

Table

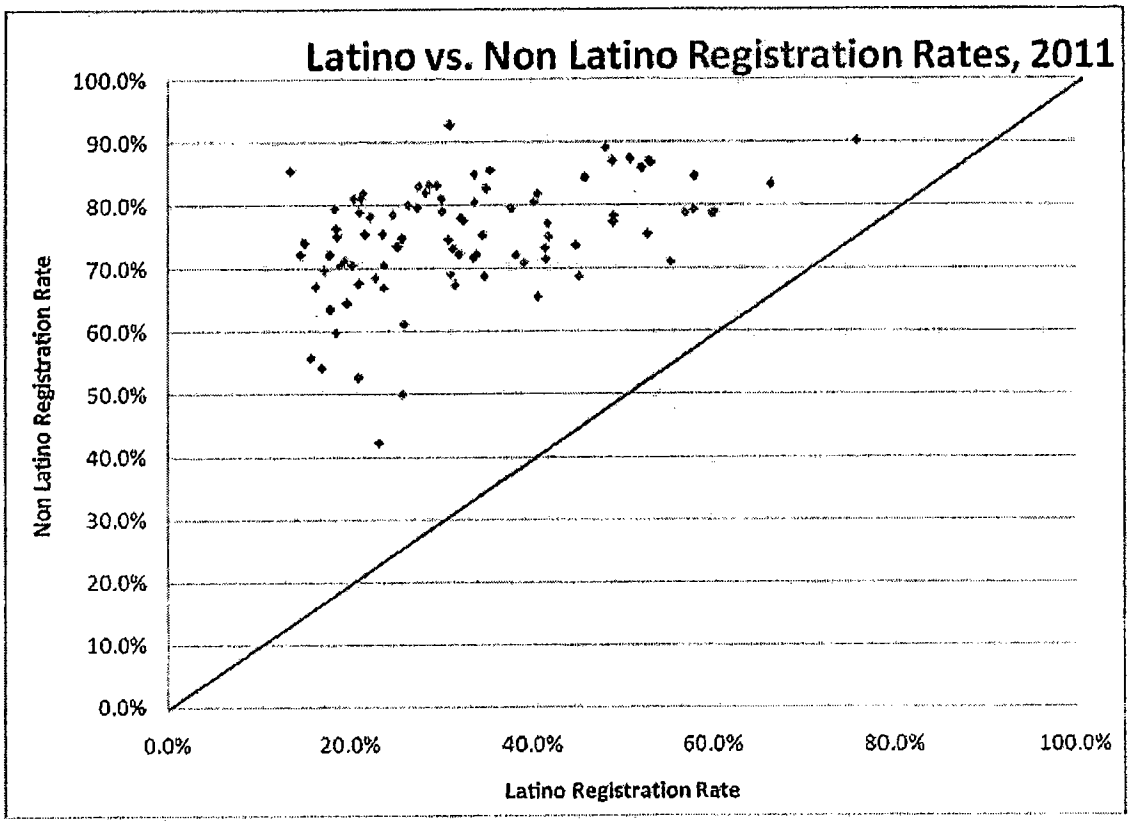


Tab 7

Exhibit 7 Racially Polarized Voting Among Latino and White Voters in Milwaukee County						
Election	Latino Candidate	White Candidate	% Latinos Voting for Latino Candidate (King EI)	% Whites Voting for Latino Candidate (King EI)	Difference in King EI Estimates	No. of Wards
2011 Cir. Ct. Primary	Pedro Colon	Multiple	58.2	32.0	+26.2	451
2011 Cir Ct. General	Pedro Colon	Christopher Lipscomb	66.2	45.3	+20.9	454
2008 State Supt. Public Instr. Primary	Rose Fernandez	Multiple	93.5	74.9	+18.6	449
2008 State Supt. Public Instr. General	Rose Fernandez	Tony Evers	95.7	40.5	+55.2	457
2004 State Senate District 8	Jennifer Morales	Alberta Darling	89.2	49.6	+39.6	36

Tab 8

Exhibit 8


Latino vs. Non Latino Registration Rates, 2011
100.0%
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
Non Latino Registration Rate
0.0%
20.0%
40.0%
60.0%
80.0%
100.0%
Latino Registration Rate

Tab 9

Exhibit 9
Racially Polarized Voting Among African American and White Voters in Milwaukee County

Election	African American Candidate	White Candidate	% Blacks Voting for Black Candidate (Goodman)	% Blacks Voting for Black Candidate (King EI)	% Whites Voting for Black Candidate (Goodman)	% Whites Voting for Black Candidate (King EI)	Difference in King EI Estimates	No. of Wards
2008 U.S. President	Barack Obama	John McCain	n.a.	99.5	n.a	53.4	+46.1	481
2008 Court of Appeals	Louis Butler	Michael Gableman	92.6	89.3	29.1	29.7	+59.6	451
2010 U.S. Congress District 4 Primary	Gwen Moore	Paul Morel	n.a.	93.5	n.a.	74.9	+18.6	340
2008 Assembly District 23	Rene Settle-Robinson	Jim Ott	n.a.	95.7	n.a.	40.5	+55.2	15
2010 County Sheriff	David Clarke	Steve Duckhorn	98.8	97.7	65.3	67.6	+30.1	457

8&9 Together VAP							
				Hispanic Turnout		White Turnout	Proportion of His
Date	Office	Hispanic Candidate	Other Candidate(s)	Goodman's	King's	Goodman's	King's
17-Feb-04	County Supervisor (12)	Daniel Cortez	Peggy West, Lori King	0.059	0.063 [0.056, 0.072]	0.243	0.167 [0.134, 0.221]
6-Apr-04	County Supervisor (12)	Daniel Cortez	Peggy West	0.081	0.077 [0.069, 0.090]	0.279	0.214 [0.168, 0.296]
17-Feb-09	State Superintendent	Fernandez	Price, Mobley, Holtz, E	na	0.023 [0.021, 0.025]	na	0.057 [0.049, 0.066]
7-Apr-09	State Superintendent	Fernandez	Evers	0.002	0.025 [0.022, 0.028]	0.142	0.109 [0.089, 0.127]
15-Feb-11	Circuit Court	Colon	Korte, Lipscomb	na	0.025 [0.022, 0.028]	na	0.117 [0.099, 0.132]
5-Apr-11	Circuit Court	Colon	Lipscomb	na	0.030 [0.026, 0.035]	na	0.298 [0.266, 0.324]
4/1/2008	Alderman 12			0.036	0.051 [0.047, 0.055]	0.206	0.172 [0.0158, 0.183]

8&9 Together LVAP							
				Hispanic Turnout		White Turnout	Proportion of His
Date	Office	Hispanic Candidate	Other Candidate(s)	Goodman's	King's	Goodman's	King's
17-Feb-04	County Supervisor (12)	Daniel Cortez	Peggy West, Lori King	0.059	0.063 [0.056, 0.072]	0.243	0.167 [0.134, 0.221]
6-Apr-04	County Supervisor (12)	Daniel Cortez	Peggy West	0.081	0.077 [0.069, 0.090]	0.279	0.214 [0.168, 0.297]
17-Feb-09	State Superintendent	Fernandez	Price, Mobley, Holtz, E	na	0.023 [0.021, 0.025]	na	0.056 [0.049, 0.066]
7-Apr-09	State Superintendent	Fernandez	Evers	0.002	0.025 [0.022, 0.028]	0.142	0.109 [0.088, 0.127]
15-Feb-11	Circuit Court	Colon	Korte, Lipscomb	na	0.025 [0.023, 0.028]	na	0.116 [0.098, 0.131]
5-Apr-11	Circuit Court	Colon	Lipscomb	na	0.030 [0.025, 0.035]	na	0.297 [0.265, 0.321]
4/1/2008	Alderman 12			0.036	0.051 [0.047, 0.055]	0.206	0.172 [0.0158, 0.183]

8&9 Together LVAP (citizenship adjusted)							
				Hispanic Turnout		White Turnout	Proportion of His
Date	Office	Hispanic Candidate	Other Candidate(s)	Goodman's	King's	Goodman's	King's
17-Feb-04	County Supervisor (12)	Daniel Cortez	Peggy West, Lori King	0.103	0.089 [0.079, 0.103]	0.243	0.178 [0.140, 0.243]
6-Apr-04	County Supervisor (12)	Daniel Cortez	Peggy West	0.141	0.114 [0.096, 0.134]	0.279	0.230 [0.173, 0.334]
17-Feb-09	State Superintendent	Fernandez	Price, Mobley, Holtz, E	na	0.028 [0.025, 0.031]	na	0.053 [0.045, 0.062]
7-Apr-09	State Superintendent	Fernandez	Evers	0.004	0.030 [0.026, 0.034	0.14	0.108 [0.090, 0.126]
15-Feb-11	Circuit Court	Colon	Korte, Lipscomb	na	0.030 [0.027, 0.034]	na	0.116 [0.100, 0.130]
5-Apr-11	Circuit Court	Colon	Lipscomb	na	0.038 [0.031, 0.047]	na	0.300 [0.270, 0.324]
4/1/2008	Alderman 12			0.063	0.071 [0.064, 0.079]	0.206	0.170 [0.150, 0.184]

EXHIBIT
G

Mayer
EXHIBIT NO. 1075
1/27/12 RPT FOM
For the Record, Inc.
(608) 833-0392

spanic Voters supporting Hispanic Candidate		Proportion of white voters supporting Hispanic Candidate		Estimated Difference		
Goodman's Regression	King's EI	Goodman's Regression	King's EI	King's EI	n of wards	
0.685	0.524 [0.492, 0.559]	0.35	0.386 [0.354, 0.429]	0.139 [0.091, 0.185]	25	
0.568	0.507 [0.459, 0.556]	0.339	0.364 [0.330, 0.408]	0.143 [0.065, 0.217]	25	
na	0.498 [0.483, 0.514]	na	0.385 [0.338, 0.437]	0.113 [0.047, 0.173]	61	
0.528	0.505 [0.486, 0.525]	0.457	0.432 [0.404, 0.462]	0.074 [0.027, 0.118]	61	
na	0.548 [0.517, 0.577]	na	0.295 [0.260, 0.345]	0.253 [0.179, 0.313]	61	
na	0.644 [0.595, 0.689]	na	0.530 [0.503, 566]	0.113 [0.041, 0.179]	61	
0.573	0.469 [0.432, 0.516]	0.311	0.398 [0.354, 0.463]	0.07 [-0.0005, 0.140]	21	
spanic Voters supporting Hispanic Candidate		Proportion of white voters supporting Hispanic Candidate		Estimated Difference		
Goodman's Regression	King's EI	Goodman's Regression	King's EI	King's EI	n of wards	
0.684	0.524 [0.492, 0.559]	0.35	0.383 [0.351, 0.428]	0.141 [0.093, 0.190]	25	
0.569	0.505 [0.459, 0.554]	0.339	0.365 [0.332, 0.407]	0.140 [0.067, 0.212]	25	
na	0.496 [0.481, 0.512]	na	0.398 [0.348, 0.451]	0.098 [0.034, 0.163]	61	
0.496	0.501 [0.483, 0.520]	0.458	0.441 [0.414, 0.470]	0.060 [0.017, 0.103]	61	
na	0.548 [0.517, 0.575]	na	0.295 [0.261, 0.341]	0.253 [0.178, 0.310]	61	
na	0.647 [0.598, 0.696]	na	0.528 [0.497, 567]	0.119 [0.044, 0.188]	61	
0.573	0.469 [0.433, 0.516]	0.311	0.398 [0.355, 0.463]	0.071 [-0.0004, 0.140]	21	
spanic Voters supporting Hispanic Candidate		Proportion of white voters supporting Hispanic Candidate		Estimated Difference		
Goodman's Regression	King's EI	Goodman's Regression	King's EI	King's EI	n of wards	
0.683	0.555 [0.514, 0.596]	0.35	0.365 [0.326, 0.422]	0.190 [0.126, 0.245]	25	
0.569	0.524 [0.461, 0.588]	0.339	0.357 [0.323, 0.399]	0.167 [0.075, 0.260]	25	
na	0.498 [0.479, 0.520]	na	0.387 [0.336, 0.440]	0.111 [0.040, 0.183]	61	
0.499	0.501 [0.480, 0.524]	0.458	0.442 [0.417, 0.469]	0.059 [0.014, 0.104]	61	
na	0.574 [0.539, 0.603]	na	0.293 [0.263, 0.329]	0.281 [0.215, 0.333]	61	
na	0.689 [0.628, 0.750]	na	0.535 [0.505, 0.568]	0.154 [0.072, 0.238]	61	
0.572	0.471 [0.420, 0.527]	0.312	0.380 [0.333, 0.461]	0.092 [-0.003, 0.168	21	

EXPERT REPORT OF RONALD KEITH GADDIE, Ph.D.

Submitted in
Baldus, et al., v. Brennan, et al. 2:2011cv00562 (E. D. Wisc.)
December 13 2011

EXHIBIT
H

1. My name is Ronald Keith Gaddie. I reside at 3801 Chamberlyne Way, Norman, Oklahoma, 73072. I have been retained as an expert to provide analysis of the Wisconsin Assembly and Senate districts by counsel for the members of the Wisconsin Government Accountability Board and its executive director. I am being compensated at a rate of $300.00 per hour. I am a tenured professor of political science at the University of Oklahoma. I teach courses on electoral politics, research methods, and southern politics at the undergraduate and graduate level. I am also the general editor (with Kelly Damphousse) of the journal *Social Science Quarterly*. I am the author or coauthor of several books, journal articles, law review articles, and book chapters and papers on aspects of elections, including most recently *The Triumph of Voting Rights in the South*. In the last decade I have worked on redistricting cases in several states, and I provided previous expert testimony on voting rights, redistricting, and statistical issues. I have also testified in trials or provided expertise to defendants, plaintiffs, intervenors, and jurisdictions in California, Florida, Georgia, Illinois, Louisiana, Maryland, New Mexico, New York, Oklahoma, South Dakota, Texas, Virginia, Wisconsin, and Wyoming, and appeared as an expert witness before committees of the U.S. House, the U.S. Senate, and the U.S. Commission on Civil Rights. Since 2008 I have testified in person or via affidavit in *Lepak v. City of Irving* 3:10-cv-00277 (N.D. Tex.); *Egolf, et al. v. Duran, et al* D-101-CV-2011-02942 (1st Jud. Dist. N.M.); and *Fletcher v. Lamone*, No. 8:11-CV-03220 (D. Md.). A complete list of my cases and retentions appears along with my academic background and list of publications in my attached vita (Exhibit A).

Signature:

Ronald Keith Gaddie
December 13, 2011

2. This report describes: equal population treatment; racial fairness and treatment of minority majority districts; delayed voting effects; treatment of political subdivisions (counties and municipalities); compactness; core constituency retention; pairing of incumbents in the Assembly and Senate districts in Act 43 of the Wisconsin Legislature; and the general features of Act 44, the U.S. Congressional district map for the state of Wisconsin.

3. Equal population treatment

The "One-Person, One-Vote" criterion looms largest in the redistricting literature and case law. The standard, initially advanced in the *Baker v. Carr* and later given name in *Gray v. Sanders*, started the reapportionment revolution. Wisconsin's 1992 and 2002 state legislative maps were crafted by the federal court. The most recent map is a legislative product. Tables 1 and 2 show

population deviation data for Assembly and Senate maps, respectively, since 1992.

The 1992 Assembly plan met a 1% standard (+/-0.5%) with an overall range of deviation of 0.91 percent, with 48 districts below the ideal and 51 above the ideal. Only one district was more than a half point away from the idea. In the Senate, the 1992 plan had an overall deviation range 0.52% with 15 districts above the ideal population and 18 below the ideal. The 2002 Federal court map had an overall range of 1.59 percent, with 47 districts above the ideal, 51 below the ideal, and one exactly apportioned district. In the Senate, the overall deviation range of the 2002 map was 0.98% with 15 districts above the ideal population, 17 below, and one at the perfectly apportioned. Of the 99 Assembly districts in 2002, 77 districts were within +/- 0.5% of the ideal population; in the Senate, 32 of 33 districts fell in this range.

The application of the 2010 census to the existing district boundaries shows many districts outside legally permissible bounds; 44 of 99 Assembly seats had populations more than 5.0% above or below the ideal, as did 11 of 33 Senate districts.

Act 43 rectifies the population variations by drawing 99 Assembly districts that fall within a range of 0.76% (+0.39% to -0.37%); 56 districts are above the ideal population, 41 are below the ideal, and two districts are perfectly apportioned. In the Senate, population variations fall within a range of 0.62% (+0.35% to -0.27%); 17 districts are above the ideal population, 14 are below the ideal, and two districts are perfectly apportioned.

4. Treatment of minority majority districts

African American and Hispanic populations are of approximately equal size in Wisconsin. African Americans are 6.3% of the Wisconsin statewide population and 26.8% of the population of Milwaukee County. The state population is 5.9% Hispanic origin, and Milwaukee County is 13.3% Hispanic. The African American population is largely concentrated in Milwaukee; over 70% of the 358,280 African American Wisconsinites are in the county, and then largely in the City of Milwaukee and north of the East-West Freeway. By comparison, just 37.5% of the 335,532 Hispanic Wisconsinites live in Milwaukee County, and that population has its greatest concentration south of the East-West Freeway.

Of the existing Assembly districts, five are majority African American districts where minority voters elect a candidate of choice (5.05% of seats statewide); of the existing Senate districts, two are majority African American districts where minority voters elect a candidate of choice (6.06% of seats statewide). There is currently one majority Hispanic Assembly seat and no majority Hispanic Senate seats.

As Table 3 shows, Act 43 includes six majority African American Assembly districts and two majority African American Senate districts. Of the six Assembly districts, five are between 60.4% and 61.9% African American voting age population (VAP), and the sixth is 51.5%

African American (VAP). The Act includes two majority Hispanic Assembly districts that are 54.0% Hispanic VAP and 60.5% Hispanic VAP, respectively. No part of Wisconsin is subject to Section 5 of the Voting Rights Act. However if the state were covered by Section 5 the new plan would meet the non-retrogression standard used by the federal government to assess whether a proposal protects minority voting rights. The new Wisconsin Assembly plan not only avoids retrogression, it creates an additional African American district and an additional Hispanic district.

In Milwaukee County, the 2002 court-drawn baseline map had sixteen Assembly districts wholly within the county, and another three districts that crossed the county line; the county population (940,164) would have accommodated seventeen whole districts plus a third of another. African-American majority districts constituted 28.8% of the potential whole districts that could have been crafted in Milwaukee county, compared to 24.6% African American in the county population. African American majority districts were 26.3% of all districts that were wholly or partially in Milwaukee County.

Act 43 had thirteen Assembly districts wholly within the county, and another eight districts that crossed the county line; the county population (947,735) would have accommodated sixteen whole districts plus half of another. African American majority districts constitute 36.4% of the potential whole districts that could have been crafted in Milwaukee county, compared to 26.8% African American in the county population. African American majority districts are 28.6% of all districts that are wholly or partially in Milwaukee County. Under Act 43, Hispanic majority Assembly districts are 2.02% of all districts in the state, 12.1% of potential whole districts that might be drawn in Milwaukee County, and 9.5% of all districts that are wholly or partially in Milwaukee County.

5.Delayed Voting Effects

The Wisconsin legislature enjoys distinct features that must be considered in the evaluation of legislative maps. Each state Senate district is composed of three entire state Assembly districts, so changes in the Assembly districts will necessarily carry through to the Senate districts. The final evaluation of changes to districts for one chamber must be made in the context of how proposed changes affect the districts of the other chamber.

Assembly members serve two-year terms. Senators serve four-year, staggered terms with half elected in presidential years and the other half coincident with gubernatorial elections. Redistricting results in shifts of voters among Senate districts that will result in temporary delayed voting of some voters. Voters who previously resided in even-numbered Senate districts (which vote at in presidential years) but who are moved to odd-numbered Senate districts (which vote in midterm years) by redistricting will go six years without the opportunity to vote for a state senator. In Wisconsin the delayed voting issue is considered significant and is closely related to the fundamental principles of fairness and equality that underlie the dominant

principles of population equality and racial fairness.

The delayed voting effects of the last three redistricting efforts appear in Table 4. In 1992, the map drawn by the Federal District Court moved 257,000 persons (or about 5.25% of all persons in Wisconsin according to the 1990 census) into districts where voters would wait six years between opportunities to vote for state senator. In 2002, the Federal District Court map moved 171,163 persons (3.14% of the state population according to the 2000 census) into districts where voters would have a six-year delayed vote. In 2011, Act 43 moves 299,704 persons (5.26% of all persons in Wisconsin according to the 2010 census) into new districts that result in similar delayed voting. The number of persons per district experiencing delayed voting ranges from a low of 133 to a high of 72,431, with an average for the 17 districts involved of 17,630 persons per district. The number of people with temporarily delayed votes is numerically similar to the number observed in Oklahoma, where the most recent state Senate map moves 299,528 persons (8.0% of the state) to districts where they will be temporarily disfranchised in state Senate elections. I am currently identifying other states with similar staggered senate elections to ascertain if the Wisconsin and Oklahoma delayed voting effects are exceptional or common.

Delayed voting is not without means for the public to redress. Wisconsin is one of nineteen states that allows for recall of state elected officials.[1] This past summer, senators in nine of the sixteen even-numbered Senate districts were subject to recall, meaning that potentially numerous delayed voters who would have waited from 2008 to 2014 for the chance to vote for senator were able to exercise the franchise via recall, and therefore will not wait six years between opportunities to vote again, but only three. A total of 164,843 persons who reside in the districts who would otherwise have delayed voting also lived in districts where a recall was conducted in 2011. Accounting for the use of the recall, the actual period of delayed voting for these 164,843 persons is just three years, not six. Thus, only 134,861 persons endure the six-year voter delay.

6. Treatment of political subdivisions

Cities and counties are creatures of the state (Dillon's Rule). They can be created, consolidated, or eliminated. Wisconsin's Constitution expressly provides that county, municipality, and ward boundaries be preserved, if possible (Wisconsin Constitution, article IV). Some city and county lines must be ignored to comply with equal population standards. The Federal Court Plan of 1992 acknowledged both that preference and a preference for preserving municipal boundaries in particular in the crafting of state legislative maps.

---

[1] Alaska, Arizona, California, Colorado, Georgia, Idaho, Illinois, Kansas, Louisiana, Michigan, Minnesota, Montana, Nevada, New Jersey, North Dakota, Oregon, Rhode Island, and Washington also have election recall. Virginia has a recall petition, but the recall is made via a recall trial (similar to an impeachment) rather than a vote of the people.

As reported in Table 5, the 1992 Federal Court map for the Assembly split 72 municipalities and the Senate map split 45 municipalities; in 2002, the Federal Court's Assembly map split 50 municipalities and the Senate map split 24 municipalities. Act 43 splits 62 municipalities in the Assembly and 37 in the Senate, which is between the numbers of municipal splits in the previous two court-ordered maps.

The 1992 Federal Court map split 47 counties in the Assembly and 35 in the Senate; in 2002, the Federal Court divided 51 counties in the Assembly and 42 in the Senate. Act 43 splits 58 counties in the Assembly and 46 in the Senate, which continues the pattern of greater numbers of counties getting split over time.

7. Compactness

A variety of statistical measures have evolved to assess compactness, though they usually reduce down to two: indicators of circular shape, and indicators of circular filling.[2] The two most widely used measures of compactness applied to legislative districts are the Perimeter-to-Area measure and the Smallest Circle score. These measures were regularly offered in post-*Shaw* litigation of the 1990s. And, traditionally, districting plans are assessed in the context of total (average) plan compactness, though the compactness of individual districts is advanced when attempting to lend context to the design of particular districts (illustrations of both measures are in Figure 1.)

> The Perimeter-to-Area (PTA) measure compares the relative length of the perimeter of a district to its area. It represents the area of the district as the proportion of the area of a circle with the same perimeter. The score ranges from 0 to 1, with a value of 1 indicating perfect compactness. This score is achieved if a district is a circle. Most redistricting software generates this measure as the Polsby-Popper statistic.
>
> Smallest Circle (SC) scores measure the space occupied by the district as a proportion of the space of the smallest encompassing circle, with values ranging from 0 to 1. A value of 1 indicates perfect compactness and is achieved if a district is a circle. This statistic is often termed the Reock measure by redistricting applications.[3]

Compactness scores for Act 43 appear in Table 6. The average smallest circle score for the entire Assembly map is .28 (range from .06 to .63). The average perimeter to area score for the

---

[2]Richard G. Niemi, Bernard Grofman, Carl Carlucci, and Thomas Hofeller. 1990. "Measuring Compactness and the Role of Compactness Standard in a Test for Partisan and Racial Gerrymandering." *Journal of Politics* 52: 1155-1181; see also H. P. Young. 1988. "Measuring the Compactness of Legislative Districts." *Legislative Studies Quarterly* 13: 105-115.

[3]Ernest C. Reock, Jr. 1961. "A Note: Measuring Compactness as a Requirement of Legislative Apportionment." *Midwest Journal of Political Science* 5: 70-74.

Assembly map is .28 (range of .05 to .56), and the Senate map has a mean perimeter to area score of .29 (range from .06 to .58). The Assembly compactness scores are marginally lower for Act 43 than for the predecessor, court-crafted plan.[4]

8. Core constituency retention

Core retention measures the extent to which constituencies are maintained or disrupted by a proposed map. There are several ways to measure core constituency retention:

> *Simple Core Retention*: How much of district #X in the old map continues into district #X in the new map? (#X old/ N new) This approach is potentially problematic if there has been a radical renumbering of the districts. This can be used with confidence only if there is a conscious effort to keep district numbers attached to geographic areas. This almost necessarily entails giving each incumbent a district. In this instance the measure would closely correspond to incumbent-oriented core retention.[5]
>
> *Largest Constituency Core Retention*: In the new district, what is the largest proportion in the district that was previously together in one particular, previous district? (Figures for this retention appear in Table 7).
>
> *Incumbent Core Retention*: In the Incumbent's new district, what proportion of the population comes from their old district? (Figures for this retention appear in Table 8).

The average largest core retention is 66.35% in the Assembly, with a low of 30.88% and a high of 99.91%, as reported in Table 7. The average Senate core retention is 78.82% with a low of 57.89% and a high of 99.92%.

Average incumbent core retention reported in Table 8 is lower than the average for the largest core retention shown in Table 7. In the Assembly, average incumbent core retention is 61.65%, with a low of 8.55% and a high of 99.91%. The average core retention for Democratic incumbents is 54.6%, and 65.86% for Republican incumbents. The lowest Democratic incumbent core is 8.55%, the highest is 99.91%; for Republicans, the low is 17.74% and the high

---

[4] The 2002 compactness scores and Senate smallest circle scores could not be generated in time for the submission of this report. They will be provided as soon as they are ready.

[5] An example of the limitations of this measure is the 1992 Georgia congressional redistricting. In that redistricting, in which Georgia gained a seat, the district of incumbent congressman Newt Gingrich (R-6) was completely dismantled, and a new district 6 created that contained none of the old district's population. Gingrich did "follow the number" and ran successfully in the new district 6.

is 97.67%.

In the Senate, average incumbent core retention is 78.23%, with a low of 42.03% and a high of 99.92%. Democratic incumbent core retention averages 78.84%, compared to 77.64% for Republican incumbents. The low Democratic incumbent score is 42.03%, the high is 99.53%. Among Republican incumbents, the low is 57.97%; the high is 99.92%.

9. Incumbent pairings

There are a total of 11 Assembly pairings involving 22 incumbents. Of these pairings, three involve two Democrats; three involve two Republicans; and five involve bipartisan pairings. The incumbent pairings and the associated core retentions of the involved incumbents appear in Table 9. The Act 43 map contained ten pairings. An additional pairing occurred when Rep. Chris Taylor (D) was elected to Assembly District 48 in a July 2011 special election. Until the result of this election, more Republicans than Democrats were paired under Act 43.

10. Act 44, U.S. Congressional Map

Equal population: Act 44 apportions the 2010 census population of the state of Wisconsin perfectly, into eight districts with a variance of one person. Districts 3, 4, 5 6, 7, and 8 have a population of 710,873, while districts 1 and 2 have a population of 710,874.

Racial fairness: The total white, non-Hispanic population of Wisconsin is approximately 4,737,259 (.833 * 5,686,986 total persons). There are approximately 949,727 persons who are not Anglo whites in the state. Of these, 358,280 are African American; 335,532 are Hispanic; 130,801 are Asian American; and 56,869 are American Indians. The greatest concentration of minority voters is in Milwaukee County., where there are 514,620 non-Hispanic whites, there are approximately 253,993 African Americans; 126,048 Hispanics; 32,333 Asian Americans; and 6,634 American Indians. No one of these minority groups is sufficiently numerous to constitute the majority of a single congressional district. Act 44 maintains congressional district 4 in Milwaukee County in a configuration that includes 110,488 Hispanics and 285,413 other non-Hispanic minority voters, primarily African Americans. Hispanics make up 15.54% of the district population and other minorities make up 40.15% of the district population, for a total racial, ethnic and linguistic population that is 55.68% of the district.

Treatment of political subdivisions: The congressional map crafted under Act 44 makes 26 splits in 12 counties. Of the 72 counties in the state, only Milwaukee County (947,735) is large enough to wholly contain a congressional district. The county splits are as follows:

Chippewa: 3, 7
Dodge: 5, 6
Jackson: 3, 7
Juneau: 3, 7
Milwaukee: 1, 4 (wholly in the county), 5, 6
Monroe: 3, 7
Richland: 2, 3
Rock: 1, 2
Walworth: 1, 5
Winnebago: 6, 8
Wood: 7, 8
Waukesha: 1, 5

The following municipalities are also split by Act 44. There are a total of 32 split municipalities encompassing 64 splits:

Alma: 3, 7
Anson: 3, 7
Bayside: 4, 6
Beaver Dam: 5, 6
Beliot: 1, 2
Buena Vista: 2, 3
Butler: 4, 5
Clearfield: 3, 7
Dousman: 1, 5
Edson: 3, 7
Germantown: 3, 7
Goetz: 3, 7
Harmony: 1, 2
Hubbard: 5, 6
Janesville: 1, 2
LaGrange: 3, 7
LaPrairie: 1, 2
Libson: 3, 7

Lomira: 5, 6
Milton: 1, 2
New Berlin: 1, 5
Oak Grove: 5, 6
Oshkosk: 6, 8
Rock: 1, 2
Theresa: 5, 6
Tomah: 3, 7
Turtle: 1, 2
Vinland: 6, 8
Waukesha: 1, 5
Whitewater: 1, 2
Winneconne: 6, 8
Wolf River: 6, 8

Core Retention:
All of the congressional districts retain their incumbents, and the incumbents largely retain their districts (see Table 10). The Largest Core and the Incumbent Core are identical. The average core retention for Act 44 is 84.33%, with a high of 96.52% (District 1) and a low of 74.99% (District 5). The average core retention for Democratic incumbents is 83.70%, and 85.36% for Republican incumbents. The lowest Democratic incumbent core is 75.91%, the highest is 91.12%; for Republicans, the low is 74.99% and the high is 96.52%.

Compactness: Compactness scores for Act 44 appear in Table 11. The average smallest circle score is .44; for Republican incumbent districts, the average is .46; for Democratic incumbent districts, the average is .40. The average perimeter to area score is .21; for Republican incumbent districts, the average is .20; for Democratic incumbent districts, the average is .24. The map has increased compactness on the smallest circle score when compared to the previous map, while compactness has decreased on the perimeter to area score.

Pairing of incumbents: No incumbent members of Congress are paired in one district.

11. Conclusion

Act 43 of the Wisconsin Legislature creates districts of substantively equal population in the Assembly and the Senate. These districts are crafted to a variation of less than one percentage point. The Senate map maintains existing African American voting opportunities in the Senate,

and the Assembly map increases by one the number of majority African American Assembly seats, from five to six. The Assembly map also maintains the existing Hispanic opportunity in Milwaukee County and also contains a second district that is majority Hispanic by VAP and which holds out prospects for a second Hispanic opportunity in the future. Both maps are generally compact, adhere to the Wisconsin state requirement to respect county and municipal boundaries, and maintain constituency cores at an average of over 66% in the Assembly and 78% in the Senate. Assembly core retention is lower in the context of incumbency, and lower on average in Democratic incumbent districts than Republican incumbent districts. The Senate map has a delayed voting level of 5.26% -- comparable to the Federal Court map in 1992 – and subsequent to the summer 2011 recall elections over half of the persons in delayed voting areas resided in areas that had recall elections, and will vote for the Senate again in 2014.

Act 44 creates eight congressional districts with a total population deviation of one person. One of the eight districts is a combined majority minority district, which currently elects an African American incumbent, U.S. Rep. Gwen Moore. The map splits 12 counties and 32 municipalities. Every incumbent member of the delegation is placed in a continuing district and is not paired with another incumbent.

Tables and Figures

Table 1: Population Deviations Under Act 43 for the Wisconsin Assembly

Assembly Deviation	1992 Court*	2002 Court**	2002 Court***	2011 Act 43***
>10.0%	0	0	7	0
5.0 to 10.0%	0	0	13	0
.5 to 4.99%	0	11	23	0
0-.499	51	36	1	56
No deviation	0	1	0	2
0 to -.499	47	40	3	41
-.5 to -4.99	1	11	28	0
-5.0 to -10.0%	0	0	21	0
< -10.0%	0	0	3	0
Low	-0.53%	-0.77%	-15.77%	-0.39%
High	+0.38%	+0.82%	+32.59%	+0.37%
Range	0.91	1.59	48.36	0.76

*1990 Census

**2000 Census

***2010 Census

Table 2: Population Deviations Under Act 43 for the Wisconsin Senate

	Senate			
Deviation	1992 Court*	2002 Court**	2002 Court***	2011 Act 43***
>10.0%	0	0	2	0
5.0 to 10.0%	0	0	3	0
.5 to 4.99%	0	1	9	0
0-.499	15	14	2	56
No deviation	0	1	0	2
0 to -.499	18	17	2	41
-.5 to -4.99	0	0	9	0
-5.0 to -10.0%	0	0	5	0
< -10.0%	0	0	1	0
Low	-0.29%	-0.47%	-11.36%	-0.27%
High	+0.23%	+0.51	+14.82%	+0.35%
Range	0.52	0.98	26.18	0.62

*1990 Census

**2000 Census

***2010 Census

Table 3: Majority-Minority Districts Under Act 43, Assembly and Senate

	1992 Court		2002 Court		2011 Act 43	
District	African American VAP	Hispanic VAP	African American VAP	Hispanic VAP	African American VAP	Hispanic VAP
Assembly						
8		[32.8%]		58.3%	6.8%	60.5
9				[22.9%]	6.9%	54.0%
10	58.7%	4.0%	67.1%		61.8%	3.7%
11	60.2%	1.7%	62.9%		61.9%	3.0%
12	[18.3%]		[32.8%]		51.5%	4.2%
16	58.3%	4.1%	60.5%		61.3%	4.7%
17	59.7%	1.3%	61.9%		61.3%	3.4%
18	59.0%	5.2%	56.7%		60.4%	5.4%
Senate						
4	[45.0%]	2.4%	54.2%		58.4%	
6	59.0%	3.5%	59.6%		61.0%	

[Bracketed] data are notable concentrations of minority voters illuminated by the court.

Sources:
Prosser et al. v. Elections Board et al., 793 F Supp. 859 (W.D. Wis. 1992);
Baumgart et al v. Wendelberg et al and Jensen et al, 02-C-0366 (E.D. Wis. 2002).

Table 4: Senate Delayed voting Effects from Redistricting Under Act 43

	1992 Court	2002 Court	2011 Act 43	2011 Act 43, Net**
Total Displaced Persons	257,000	171,613	299,704	134,861
% of State	5.25%	3.14%	5.26%	2.37%
Per district*	15,117	10,726	17,630	16,857***

Sources:
Prosser et al. v. Elections Board et al., 793 F Supp. 859 (W.D. Wis. 1992).
Baumgart et al v. Wendelberg et al and Jensen et al, 02-C-0366 (E.D. Wis. 2002).

*N = 17 for 1992 and 2011; N = 16 for 2002.
**Net delayed voting accounting for persons in areas that voted in the July and August 2011 recalls.
***Average for the eight districts that did not participate in the 2011 recall elections.

Table 5: County and Municipal Splits Under Act 43

	1992 (U.S. Court)	2002 (U.S. Court)	2011 (Act 43)
Assembly Municipal Splits	72	50	62
Senate Municipal Splits	45	24	37
Assembly County Splits	47	51	58
Senate County Splits	35	42	46

Source: Wisconsin Legislative Reference Bureau;
Baumgart et al v. Wendelberg et al and Jensen et al, 02-C-0366 (E.D. Wis. 2002).

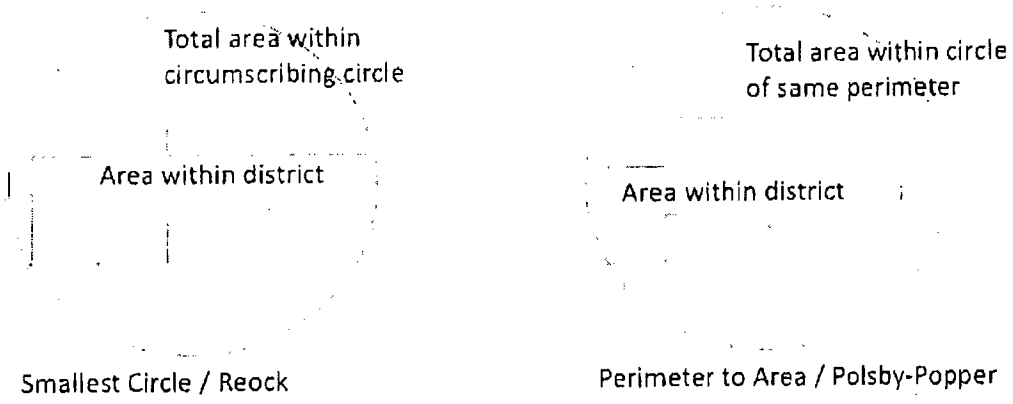


Figure 1: Compactness, illustrated

Table 6: Compactness Scores Under Act 43, Wisconsin Assembly and Wisconsin Senate

	Assembly 2002 Map	Assembly 2011 Map	Senate 2002 Map	Senate 2011 Map
Smallest Circle				
Average	.41	.39		
Low	.18	.20		
High	.63	.61		
Perimeter-to-area				
Average	.29	.28		.29
Low	.06	.05		.06
High	.58	.56		.58

Table 7: Largest Core Retention Under Act 43, Assembly and Senate Districts

	Assembly	Senate
Average	66.35	78.82
Low	30.88	57.89
High	99.91	99.92

Table 8: Incumbent Core Retention Under Act 43

	Assembly	Senate
Assembly		
Average	61.65%	78.23%
Low	8.55%	42.03%
High	99.91%	99.92%
Democratic Incumbent	54.60%	78.84%
Low	8.55%	42.03%
High	99.91%	99.53%
Republican Incumbent	65.86%	77.64%
Low	17.74%	57.97%
High	97.67%	99.92%

Table 9: Incumbent Pairings Under Act 43, Wisconsin Assembly and Senate

Act 43 District	Incumbent / 2002 District	% Deviation*	% Inc. Core**
Assembly 92	Danou-D, 91	-1.38%	70.84%
	Radcliffe-D, 92	+2.52%	29.16%
Assembly 7	Kiusick-D, 7	-2.82%	30.88%
	Zepnick-D, 9	+5.98%	13.92%
Assembly 76	Pocon-D, 78	-4.20%	67.96%
	Taylor-D, 48	+6.89%	10.45%
Assembly 31	Loudenbeck-R, 45	+3.77%	45.44%
	August-R, 32	+4.72%	26.20%
Assembly 88	Klenke-R, 88	+1.12%	47.89%
	Jacque-R, 2	+6.21%	34.23%
Assembly 89	Nygren-R, 89	+6.21%	82.26%
	Van Roy-R, 90	+2.71%	17.74%
Assembly 33	Jorgensen-D, 37	+2.65%	45.31%
	Nass-R, 31	+7.50%	29.85%
Assembly 14	Cullen-D, 13	-6.23%	31.81%
	Kooyenga-R, 14	-8.34%	35.80%
Assembly 22	Kessler-D, 12	-3.78%	11.79%
	Pridemore-R, 99	+10.98%	35.66%
Assembly 23	Pasch-D, 22	-7.71%	36.14%
	Ott-R, 23	-3.82%	36.92%
Assembly 61	Steinbrink-D, 65	+7.25%	36.07%
	Kerkman-R, 66	+7.18%	63.93%

Senate 21	Wirch-D, 22	+4.46%	57.97%
	Wanggaard-R, 21	-3.25%	42.03%

*Population deviation of the incumbent's previous district under the 2002 Federal Court-drawn map.
**Percentage of the new district that comes from the incumbent's previous district.

Table 10: Core Retention, Congressional Districts, Act 44

District		Total Pop.	Retained Core	Core Percent
	1	710,874	686,159	96.52
	2	710,874	633,024	89.05
	3	710,873	539,603	75.91
	4	710,873	647,764	91.12
	5	710,873	533,051	74.99
	6	710,873	565,950	79.61
	7	710,873	538,884	75.81
	8	710,873	651,119	91.59
Average		710,873	599,444	84.33
Dem. Avg.		710,873	606,797	83.70
Rep. Avg.		710,873	595,033	85.36

Table 11: Compactness, Congressional Districts, Act 44

District	2002 Map Smallest Circle	Act 44 Smallest Circle	2002 Map Perimeter to Area	Act 44 Perimeter to Area
1	0.47	0.49	0.32	0.31
2	0.56	0.54	0.37	0.43
3	0.33	0.33	0.37	0.17
4	0.30	0.30	0.12	0.13
5	0.53	0.53	0.25	0.24
6	0.38	0.38	0.23	0.16
7	0.53	0.53	0.19	0.16
8	0.40	0.42	0.13	0.11
Average	.42	.44	.25	.21
Dem. Avg.	0.40	0.39	0.29	0.24
Rep. Avg.	0.46	0.47	0.22	0.20

RONALD KEITH GADDIE
Curriculum Vitae

Department of Political Science
The University of Oklahoma
Norman, OK 73019

voc: (405) 325-4989 / fax: (405) 325-0718
email: rkgaddie@ou.edu
web: faculty-staff.ou.edu/G/Ronald.K.Gaddie-1

EDUCATION

Ph.D., Political Science, The University of Georgia, June 1993
M.A., Political Science, The University of Georgia, December 1989
B.S., Political Science, History, The Florida State University, August 1987
A.A., Liberal Arts, The Florida State University, December 1986

ACADEMIC EXPERIENCE

Professor of Political Science, The University of Oklahoma (July 2003-)

Associate Professor (July 1999-June 2003)

Assistant Professor (August 1996-June 1999)

Faculty Fellow, Science and Public Policy Program, Sarkeys Energy Center, the University of Oklahoma (2002- 2004)

Editor (with Kelly R. Damphousse), *Social Science Quarterly*, July 2010-present

Research Assistant Professor of Environmental Health Sciences, Tulane University School of Public Health and Tropical Medicine (September 1994-August 1996); also adjunct Assistant Professor of Political Science, Tulane University (September 1994-August 1996)

Freeport-McMoRan Environmental Policy Postdoctoral Fellow, Tulane University School of Public Health and Tropical Medicine (January 1993-September 1994)

Teaching and Research Assistant, Department of Political Science, The University of Georgia (September 1987-December 1992)

AWARDS, GRANTS, & HONORS

Freeport-McMoRan Post-Doctoral Fellowship, Tulane University, 1993-1994

Coca-Cola Foundation Summer Scholar Faculty Mentor, Tulane University, 1995, 1996

University of Oklahoma Research Council Junior Faculty Research Award ($6,000), 1997

Junior Faculty Development Fund Research Award ($540), The University of Oklahoma, 1997

"Guest Coach", University of Oklahoma Football Team, 1997

College of Arts and Sciences Teaching and Research Award ($875), The University of Oklahoma, 1997-1998

College of Arts and Sciences Summer Research Fellowship ($6,000), The University of Oklahoma, 1998

Pi Sigma Alpha Best Paper Award, Southwestern Political Science Association Meeting, 1998, 2006

Oklahoma Honors College Undergraduate Research Mentor, Spring 1999

Daily Oklahoman Poll, Co-Principal Investigator with Gary W. Copeland, ($82,000), 1999-2001

Jewell Prestage Award, for the Best Paper on Gender, Race, Ethnicity, and Political Behavior, Southwestern Political Science Association, 2003

The Order of Kentucky Colonels, conferred August 16 2006

"Guest Coach", University of Oklahoma Women's Basketball Team, 2007

President-Elect, Southwestern Political Science Association, 2006-07

President, Southwestern Political Science Association, 2007-08

Society for Professional Journalists (Oklahoma PRO Chapter) award for "Best Radio Talk Program," 2008, 2009, 2010

Julian J. Rothbaum Award for the outstanding book published by the University of Oklahoma Press, 2009, for *The Triumph of Voting Rights in the South.*

V. O. Key Jr. Award for the outstanding book on Southern Politics (2011) for *The Triumph of Voting Rights in the South.*

PROFESSIONAL CONSULTING AND PARTNERSHIPS

Managing Partner, Intelligent Robotic Solutions LLC, (Oklahoma City, OK) January 2010-present

Consulting Senior Vice-President, Shapard Research LLC (Oklahoma City, OK), January 2009-present

Partner, TVPoll.com PC (Oklahoma City), September 2006-present (consulting expert, June-September 2006)

Partner, Soonerpolitics.com, September 2006-2008 (sole proprietor, May 2004-Spetember 2006)

Consulting expert, Phoenix Consulting (Oklahoma City, OK) September 2005-2007

Consulting expert (*of Counsel*), Wilson Research Strategies (Washington DC, Austin, & Oklahoma City), OK, 2004-2006

Adjunct Professor of Management, Central Michigan University, March 1995-July 1996

Electoral/Demographics, June 1988-December 1992 (Programmer and analyst)

Legislative Aide, Rep. John F. Cosgrove, Florida House of Representatives, April-July 1987

TEACHING

The University of Oklahoma (1996-)

Graduate Courses:

Analysis for Political and Public Administration Data
Congress in the Political System
Environmental Policy and Administration
Federalism and Intergovernmental Relations
Games, Decisions, and Policy
Intermediate Data Analysis
Legislative Politics
Mass Politics and Realignment
Mediating Political Institutions
Problems in Implementation
Problems in Political Behavior
Public Budgeting and Finance
Public Policy Analysis
Public Policy Problems
Southern Politics
Problems in the Law and Constitution: Voting Rights

Ph.D. Dissertations:

Scott E. Buchanan. 1999. *Perspectives on the Racial Threat Hypothesis: Testing a Theory of Southern Politics*. Norman, OK: The University of Oklahoma.
Joshua Stockley. 2005. *State Party Organizations as Campaign Service Providers: A Three-State Study of Candidate and Party Perceptions*. Norman, OK: The University of Oklahoma.

Undergraduate:

American Federal Government
American Federal Government (Honors)
American Political Processes
Environmental Policy and Administration
Freshman Seminar: The Presidential Campaign
Freshman Seminar: Hollywood Politics
Measurement and Analysis for Public Administration
Politics in America: Generational Politics
Politics in Film
Practical Political Analysis
Public Opinion
Capstone Seminar: American Politics in Film & Literature
Southern Politics
Voters and Campaigns

Other Supervision:

Approximately sixty-five M.P.A. projects, M.A. project papers, or M.A. theses supervised since 1997. Service on approximately forty Ph.D. committees, including six in communications, seven in economics, one in sociology, four in organizational leadership.

Tulane University (1993-1996)

Graduate:

Seminar in Quantitative Research Methods
Environmental Policy and Management

Undergraduate:

American Politics (Honors)
Environmental Politics
Global Environmental Politics (Honors)

The University of Georgia (1987-1992)

Undergraduate:

American Federal Government

Political Science Research Methods

PUBLICATIONS

Books

Charles S. Bullock III and Ronald Keith Gaddie. 2010. *Georgia Politics in a State of Change.* New York: Pearson/Longman.

--2d edition, 2012.

Charles S. Bullock III and Ronald Keith Gaddie. 2009. *The Triumph of Voting Rights in the South.* Norman, OK: The University of Oklahoma Press.

Ronald Keith Gaddie. 2004. *Born to Run: Origins of the Political Career.* Lanham, Md: Rowman and Littlefield Press.

Ronald Keith Gaddie and Charles S. Bullock, III. 2000. *Elections to Open Seats In The U.S. House: Where the Action Is.* Lanham, Md.: Rowman and Littlefield Press.

Ronald Keith Gaddie and James L. Regens. 2000. *Regulating Wetlands Protection: Environmental Federalism and the States.* Albany: State University of New York Press.

Gary W. Copeland, Ronald Keith Gaddie, and Craig A. Williams. 1998. *The Almanac of Oklahoma Politics 1998.* Stillwater, Oklahoma: OPSA Press. Also published as *Oklahoma Politics: Special Issue,* 6 [1997].

--2d edition, 1999. *The Almanac of Oklahoma Politics 2000.* Edmond, OK, OPSA Press.

--3d edition, 2001. *The Almanac of Oklahoma Politics 2002.* Norman, OK: The Carl Albert Center for Congressional Studies.

James L. Regens and Ronald Keith Gaddie. 1995. *The Economic Realities of Political Reform: Elections and the U.S. Senate.* New York: Cambridge University Press.

--Paperback edition, 2005.

Edited Volumes

Donald P. Haider-Markel, general editor; Michael Card, Ronald Keith Gaddie, Gary Moncrief, Kenneth Palmer, regional editors. 2008. *The Political Encyclopedia of U.S. States and Regions.* Washington, DC: Congressional Quarterly Press.

John C. Kuzenski, Charles S. Bullock, III and Ronald Keith Gaddie (editors). 1995. *David Duke and the Politics of Race in the South.* Nashville: Vanderbilt University Press.

Academic Books In Progress

Ronald Keith Gaddie and Charles S. Bullock III. *DeLayed Democracy: The Texas Redistricting War 2001-2006.* Norman, OK: The University of Oklahoma Press (under contract).

Ronald Keith Gaddie and Bill Shapard. *Red State Rising: The New Oklahoma Politics.* Norman, OK: The University of Oklahoma Press (under contract).

Thomas R. Dye and Ronald Keith Gaddie. 2013. *Politics in America, 10th edition.* New York: Pearson (under contract).

Trade and Popular Books

Scott Cooper & Keith Gaddie. 2011. *OU Football IQ.* Jacksonville, FL:. Black Mesa Publishing.

Keith Gaddie. 2010. *Ghosts on Vintners Landing: A Novel.* Jacksonville, FL:. Black Mesa Publishing.

Keith Gaddie & Kim Gaddie. 2009. *Georgia Football IQ.* Jacksonville, FL:. Black Mesa Publishing.

David Horne - Daniel Brush - Marc CB Maxwell & Keith Gaddie. 2008. *University of Georgia Football.* New York: Savas Beatie.

Articles

Ronald Keith Gaddie, Justin J. Wert, and Charles S. Bullock, III. Forthcoming. Seats, Votes, Citizens, and History in the One-Person, One-Vote Problem. *Stanford Law and Policy Review* 23 (Spring 2012).

Charles S. Bullock III, Justin J. Wert, and Ronald Keith Gaddie. 2011. 'Of Benedick and Beatrice': *Citizens United* and the Rein of the Laggard Court. *Cornell Journal of Law and Public Policy* 20(3): 719-737.

Charles S. Bullock III, Ronald Keith Gaddie, and Justin J. Wert. 2009. Electoral College Reform and Voting Rights. *Faulkner Law Review* 1 (1): 89-134.

Ronald Keith Gaddie and Charles S. Bullock, III. 2007. From *Ashcroft* To *Larios*: Recent Redistricting Lessons from Georgia. *Fordham Urban Law Journal* 34 (April): 997-1048.

Charles S. Bullock III and Ronald Keith Gaddie. 2007. Voting Rights Progress in Georgia. *New York University Journal of Legislation and Public Policy* 10 (Spring): 1-49.

Ronald Keith Gaddie and Charles S. Bullock III. 2007. Campaign Finance Reform as the New Political Thicket of the Supreme Court. *NeXus: A Journal of Opinion* 12: 43-55.

Charles S. Bullock III and Ronald Keith Gaddie. 2007. Good Intentions and Bad Social Science Meet in the Renewal of the Voting Rights Act. *Georgetown Journal of Law & Public Policy* 5 (Winter): 1-27.

Ronald Keith Gaddie and Charles S. Bullock III. 2006. (Pre)clarifying the Muddy Red Waters of the Texas Redistricting War. *Engage: The Journal of the Federalist Society's Practice Groups.* 7 (2, October): 98-104.

Charles S. Bullock, III, Donna R. Hoffman, and Ronald Keith Gaddie. 2006. Regional Variations in the Realignment of American Politics, 1944-2004. *Social Science Quarterly* 87 (September): 494-518.

Jocelyn Jones Evans, Lynsey Morris, and Ronald Keith Gaddie. 2006. Wallace and the 1972 Florida Democratic Presidential Primary: Examining Racial Threat with Individual-Level and Aggregate-Level Data. *Florida Political Chronicle* 17 (Spring): 1-11.

Charles S. Bullock, III, Ronald Keith Gaddie, and Ben Smith. 2005. White Voters, Black Representative, and Candidates of Choice. *American Review of Politics* 26 (Fall): 267-289.

Charles S. Bullock III, Donna R. Hoffman, and Ronald Keith Gaddie. 2005. The Consolidation of the Southern White Vote. *Political Research Quarterly* 58 (June): 231-243.

Ronald Keith Gaddie. 2004. The Texas Redistricting, Measure for Measure. *Extensions: A Journal of the Carl Albert Congressional Research and Studies Center* (Fall 2004): 19-24.

Ronald Keith Gaddie. 2004. Restoring the U.S. House of Representatives: A Skeptical Look at Current Proposals. *Cato Policy Analysis* 510 (February 17): 1-14.

Charles S. Bullock, III, Ronald Keith Gaddie, and Anders Ferrington. 2002. System Structure, Campaign Stimuli, and Voter Falloff in Runoff Primaries. *The Journal of Politics* 64 (4, November): 1210-1224.

Kim U. Hoffman, Carrie Palmer, and Ronald Keith Gaddie. 2002. Candidate Sex and Congressional Elections

Outcomes: A Longitudinal Look Through the Open Seats. *Women & Politics* 23 (1 & 2): 37-58.; appears in Karen O'Connor, ed. 2002. *Women and Congress: Running, Winning, and Ruling.* Binghampton, NY: Haworth Press.

James W. Douglas and Ronald Keith Gaddie. 2002. State Rainy Day Funds and Fiscal Crises: Rainy Day Funds and the 1990-1991 Recession Revisited. *Public Budgeting and Finance* 22 (Winter): 19-30.

Charles S. Bullock, III, Ronald Keith Gaddie , and Anders Ferrington. 2001. When Experience Fails: The Experience Factor in Congressional Runoffs. *Legislative Studies Quarterly.* 26 (February): 31-43.

Ronald Keith Gaddie and Lesli E. McCollum. 2000. An Applied Surge-slump Technique for Estimating the Incumbency Advantage. *The American Review of Politics* 21 (Fall & Winter): 273-297.

Ronald Keith Gaddie, Kim U. Hoffman, and Carrie Palmer. 2000. Congressional Elections Beyond the Year of the Woman: A Research Update. *Social Science Quarterly* 81 (September): 879-884.

Ronald Keith Gaddie, Jonathan D. Mott, and Shad D. Satterthwaite. 1999. Partisan Dimensions to Corporate Realignment in Congressional Campaign Finance. *Public Integrity* 1(4): 7-41.

Ronald Keith Gaddie, Charles S. Bullock, III, and Scott E. Buchanan (with the assistance of Andrew Hicks). 1999. What Is So Special About Special Elections? *Legislative Studies Quarterly* 24 (February): 103-112.

Ronald Keith Gaddie and Jonathan D. Mott. 1998. The 1996 Open Seat Congressional Elections. *Social Science Quarterly* 79 (June): 445-455.

Ronald Keith Gaddie, Russell Keith Johnson, and John K. Wildgen. 1998. Geographic Information Systems and Social Policy Formulation. *Studies in the Social Sciences* 19 (April): 101-114.

Charles S. Bullock, III, and Ronald Keith Gaddie. 1997. Contestation and Turnout in Multi-Member and Single-Member Districts. *Southeastern Political Review* 25 (4):1-16.

Ronald Keith Gaddie and Scott E. Buchanan. 1997. Shifting Partisan Alignments in Oklahoma. *Oklahoma Politics: Special Issue* 6 (October): 25-32; appears in Gary W. Copeland, Ronald Keith Gaddie, and Craig A. Williams (General Editors). 1997. *The Almanac of Oklahoma Politics* 1997-1998. Stillwater, OK: OPSA Press.

Ronald Keith Gaddie. 1997. Congressional Seat Swings: Revisiting Exposure in House Elections. *Political Research Quarterly* 50 (September): 675-686.

Ronald Keith Gaddie and Charles S. Bullock, III. 1997. Structural and Elite Features in Open Seat and Special Elections: Is There a Sexual Bias? *Political Research Quarterly* 50 (June): 457-466.

Ronald Keith Gaddie and James L. Regens. 1997. Economic Interest Group Allocations in Open Seat Senate Elections. *American Politics Quarterly* 25 (June): 347-362.

Ronald Keith Gaddie. 1996. Pragmatism and the Corporate Shift in Political Action: An Alternative Perspective. *Social Science Quarterly* 77 (December): 924-928.

Ronald Keith Gaddie and John C. Kuzenski. 1996. Institutional and Personal Legislative Specialization in the United States Senate. *Southeastern Political Review* 24 (March): 3-19.

Ronald Keith Gaddie and Charles S. Bullock, III. 1995. Congressional Elections and the Year of the Woman: Structural and Elite Influence on Female Candidacies. *Social Science Quarterly* 76 (December): 749-762.

Ronald Keith Gaddie. 1995. Negating the Democratic Party Advantage in Open Seat Elections -- A Research Update. *Social Science Quarterly* 76 (September): 673-680.

Ronald Keith Gaddie. 1995. Investing in the Future: Economic Political Action Committee Contributions to Open Seat House Candidates. *American Politics Quarterly* 23 (July): 339-354.

Ronald Keith Gaddie. 1995. Is There an Inherent Democratic Party Advantage in U.S. House Elections?

Evidence from the Open Seats. *Social Science Quarterly* 76 (March): 203-212.

James L. Regens, Ronald Keith Gaddie, and Brad Lockerbie. 1995. The Electoral Consequences of Voting to Declare War. *Journal of Conflict Resolution* 39 (March): 168-182.

Charles S. Bullock, III, and Ronald Keith Gaddie. 1994. Runoffs in Jesse Jackson's Backyard. *Social Science Quarterly*, 75 (September): 446-454.

James L. Regens, Ronald Keith Gaddie, and Euel Elliott. 1994. Corporate Campaign Contributions and Rent Provision in Senate Elections. *Social Science Quarterly* 75 (March): 152-165.

Charles S. Bullock, III, and Ronald Keith Gaddie. 1993. Changing from Multi-Member to Single-Member Districts: Partisan, Racial, and Gender Impacts. *State and Local Government Review* 25 (Fall): 155- 163.

James L. Regens, Ronald Keith Gaddie, and Euel Elliott. 1993. Member Attributes and Corporate Contributions to U.S. Senators: Do Environmental Compliance Costs Matter? *Canadian Journal of Political Science* 26 (June): 331-341.

James L. Regens, Euel W. Elliott, and Ronald Keith Gaddie. 1991. Regulatory Costs, Committee Jurisdiction, and Corporate PAC Contributions, *Social Science Quarterly,* 72 (December): 751-760.

Chapters

Ronald Keith Gaddie. 2011. Realignment. In Charles S. Bullock III and Mark J. Rozell, eds., *The Oxford Handbook of Southern Politics*. New York: Oxford University Press.

Ronald Keith Gaddie and Justin Wert. 2011. Before KKV, V.O. Key: *Southern Politics* and Social Science Methodology. In Todd G. Shields, ed., *Unlocking V. O. Key's* Southern Politics. Little Rock: University of Arkansas Press.

Ronald Keith Gaddie and John William Shapard. 2010. Oklahoma: Red State Rising. In Charles S. Bullock, III and Mark Rozell (eds.) *The New Politics of the Old South (4th).* Lanham, MD: Rowman and Littlefield Press.

Ronald Keith Gaddie. 2010. The Democratic Party of Oklahoma. In *The Encyclopedia of Oklahoma History and Culture.* Oklahoma City: Oklahoma Historical Society.

Ronald Keith Gaddie. 2010. The Republican Party of Oklahoma. In *The Encyclopedia of Oklahoma History and Culture.* Oklahoma City: Oklahoma Historical Society.

Ronald Keith Gaddie and Michael D. Jones. 2009. Tennessee: Cracker Barrel Realignment. In Branwell DuBose Kapeluck, Lawrence W. Moreland, and Robert P. Steeed, eds., *A Paler Shade of Red: The 2008 Presidential Election in the South.* Fayetteville, AR: University of Arkansas Press.

Ronald Keith Gaddie. 2008. The South. In Donald P. Haider-Markel, editor, *Political Encyclopedia of U.S. States and Regions.* Washington, DC: Congressional Quarterly.

Ronald Keith Gaddie and Michael D. Jones. 2008. New South? Diverse Politics in States of Dynamic Change. In Todd G. Shields and Shannon G. Davis, eds., *New Voices of the Old South: How Women and Minorities Influence Southern Politics.* Tallahassee, FL: Florida State University John Scott Daily Florida Institute of Government

Ronald Keith Gaddie and Michael D. Jones. 2008. Tennessee: A Quiet Sort of Inequality. In Todd G. Shields and Shannon G. Davis, eds., *New Voices of the Old South: How Women and Minorities Influence Southern Politics.* Tallahassee, FL: Florida State University John Scott Daily Florida Institute of Government.

Gary W. Copeland, Rebecca J. Cruise, and Ronald Keith Gaddie. 2006. Oklahoma: Evangelicals and the Secular Realignment. In Charles S. Bullock, III and Mark Rozell (eds.) *The New Politics of the Old South (3d).* Lanham, MD: Rowman and Littlefield Press.

Charles S. Bullock III, Rebecca J. Cruise, and Ronald Keith Gaddie. 2005. Sessions versus Frost in the Texas 32d District. In Robert Dewhirst and Sunil Ahuja, eds., *The Roads to Congress 2004.* Boca Raton, FL: Nova University Press.

Ronald Keith Gaddie, with Jennifer Christol, Charles Mullin, Katherine Thorne, and Benjamin Wilson. 2005. Issue Advocacy in the 2004 Oklahoma Senate Election. In David Magelby, J. Quin Monson, and Kelly D. Patterson, eds., *Dancing Without Partners: How Candidates, Parties and Interest Groups Interact in the New Campaign Finance Environment.* Provo: Center for the Study of Elections and Democracy.

Ronald Keith Gaddie and Charles S. Bullock, III. 2003. Bob Barr and John Linder (versus Tom Murphy) in Georgia's 7th District. In Sunil Ahuja and Robert Dewhirst (eds.) *The Road to Congress 2002.* Chicago: Wadsworth Publishers.

Robert Dewhirst and Ronald Keith Gaddie. 2003. The 2000 Congressional Elections: Tradition Meets Competition in the New Age. In Robert P. Watson and Colton C. Campbell, Eds., *Campaigns & Elections: Issues, Concepts, and Cases.* Boulder, CO: Lynne Rienner Publishers.

Ronald Keith Gaddie and Gary W. Copeland. 2003. Oklahoma: God and the Grassroots. In Charles S. Bullock, III and Mark Rozell (eds.) *The New Politics of the Old South (2d).* Lanham, MD: Rowman and Littlefield Press.

Melody Huckaby and Ronald Keith Gaddie. 2001. Carson Defeats Ewing in Oklahoma's 2d District. In Sunil Ahuja and Robert Dewhirst (eds.) *The Road to Congress 2000.* Chicago: Wadsworth Publishers.

Ronald Keith Gaddie and Gary W. Copeland. 2001. Partisan Trends in Oklahoma. In Gary W. Copeland, Ronald Keith Gaddie, and Craig A. Williams (General Editors), *The Almanac of Oklahoma Politics 2002.* Norman, OK: Carl Albert Center for Congressional Studies and Research.

Ronald Keith Gaddie and Donna R. Hoffman. 2001. Critical Events in Contemporary Southern Politics: Dynamic Growth and Partisan Percolations. In John C. Kuzenski, Laurence W. Moreland and Robert P. Steed (eds.). *Eye of The Storm: The South And Congress in an Era of Change.* Westport, CT: Praeger Press.

Ronald Keith Gaddie and Lesli McCollum. 2000. Money and the Incumbency Advantage in US House Elections. In Joseph Zimmerman and Wilma Rule (eds.) *This U.S. House of Representatives: Renovate or Rebuild?* Westport, CT: Praeger Press.

Ronald Keith Gaddie. 1999. Nickles, Defeats Carroll in Oklahoma. In Robert Dewhirst and Sunil Ahuja (eds.) *The Road to Congress 1998.* Chicago: Wadsworth Publishers.

Ronald Keith Gaddie. 1999. Party Building and Republican Growth in Oklahoma. In Gary W. Copeland, Ronald Keith Gaddie, and Craig A. Williams (General Editors). 1999. *The Almanac of Oklahoma Politics 2000.* Edmond, OK: OPSA Press.

Ronald Keith Gaddie and Scott E. Buchanan. 1998. Oklahoma: Realignment in the Buckle of the Bible Belt. In Charles S. Bullock, III and Mark Rozell (eds.) *The New Politics of the Old South: An Introduction to Southern Politics.* Lanham, MD: Rowman and Littlefield Press.

Ronald Keith Gaddie and Charles S. Bullock, III. 1997. Voter Turnout and Candidate Participation Effects of Affirmative-Action Districting. In Robert Steed, Laurence Moreland, and Tod Baker, eds., *Southern Parties and Elections: Studies in Regional Change.* Tuscaloosa: University of Alabama Press.

Ronald Keith Gaddie, David Barnhill, and James L. Regens. 1997. J. Horace McFarland. In Richard Harmond and G. A. Cevasco, eds., *American Environmentalists: A Selective Autobiographical Encyclopedia, 1850-1990.* New York: Scarecrow Press.

David Barnhill, Ronald Keith Gaddie, and James L. Regens. 1997. Joseph Grinnell. In Richard Harmond and G. A. Cevasco, eds., *American Environmentalists: A Selective Autobiographical Encyclopedia, 1850-1990.* New York: Scarecrow Press.

David Barnhill, Ronald Keith Gaddie, and James L. Regens. 1997. Clarence Dutton. In Richard Harmond and G. A. Cevasco, eds., *American Environmentalists: A Selective Autobiographical Encyclopedia, 1850-1990.* New York: Scarecrow Press.

Charles S. Bullock, III, Ronald Keith Gaddie, and John C. Kuzenski. 1995. The Candidacy of David Duke as a Stimulus to Black Voting. In John C. Kuzenski, Charles S. Bullock, III and Ronald Keith Gaddie (editors), *David Duke and the Politics of Race in the South.* Nashville: Vanderbilt University Press.

Susan A. MacManus and Ronald Keith Gaddie. 1993. Florida. In Leroy Hardy, Alan Heslop, and George S. Blair, eds., *Redistricting in the 1980s: A 50-State Survey.* Claremont, CA: The Rose Institute of State and Local Government.

Charles S. Bullock, III, and Ronald Keith Gaddie. 1993. Georgia. In Leroy Hardy, Alan Heslop, and George S. Blair, eds., *Redistricting in the 1980s: A 50-State Survey.* Claremont, CA: The Rose Institute of State and Local Government.

Charles S. Bullock, III, and Ronald Keith Gaddie. 1991. Changing from Multi-Member to Single-Member Districts: The Florida Case. In Susan A. MacManus, ed., *Reapportionment and Representation in Florida: A Historical Collection.* Tampa: Intrabay Innovation Institute.

Susan A. MacManus and Ronald Keith Gaddie. 1991. Reapportionment in Florida: The Stakes Keep Getting Higher. In Susan A. MacManus, ed., *Reapportionment and Representation in Florida: A Historical Collection.* Tampa: Intrabay Innovation Institute.

Monographs

Charles S. Bullock III and Ronald Keith Gaddie. 2006. *An Assessment of Voting Rights Progress in Alabama.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2006. *An Assessment of Voting Rights Progress in Arizona.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2006. *An Assessment of Voting Rights Progress in New York.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2006. *An Assessment of Voting Rights Progress in Oklahoma.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2006. *An Assessment of Voting Rights Progress in Tennessee.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2006. *An Assessment of Voting Rights Progress in Arkansas.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2006. *An Assessment of Voting Rights Progress in Mississippi.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2006. *An Assessment of Voting Rights Progress in California.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2006. *An Assessment of Voting Rights Progress: Alaska, Michigan, New Hampshire, South Dakota.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2006. *An Assessment of Voting Rights Progress in North Carolina.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2005. *An Assessment of Voting Rights Progress in Florida.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2005. *An Assessment of Voting Rights Progress in Georgia.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2005. *An Assessment of Voting Rights Progress in Louisiana.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2005. *An Assessment of Voting Rights Progress in South Carolina.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2005. *An Assessment of Voting Rights Progress in Texas.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2005. *An Assessment of Voting Rights Progress in Virginia.* Washington, DC: American Enterprise Institute Policy Series.

Charles S. Bullock III and Ronald Keith Gaddie. 2005. *Coverage Under Section 5, Retrogression, and the Difference with Section 2.* Washington, DC: American Enterprise Institute Policy Series.

Sally O'Connor, Jane Cromartie, Ronald Keith Gaddie, and Nina Joshi. 1995. *Inventory of Public Concerns at the Savannah River Site: CERE Public Concerns Report Volume VI.* Washington, DC: Consortium for Environmental Risk Evaluation for U.S. Department of Energy.

Sally O'Connor, Jane Cromartie, Eileen Jones, David Barnhill, Ronald Keith Gaddie, and Nina Joshi. 1995. *Inventory of Public Concerns at the U.S. Department of Energy's Nuclear Weapons Complex: CERE Interim Public Concerns Report to the U.S. Department of Energy.* Washington, DC: Consortium for Environmental Risk Evaluation for U.S. Department of Energy.

Reviews & Communications

Atlanta Journal-Constitution, September 7 2003, 7F

At-Large (Fall 1998) 1-4

Extension of Remarks (December 1996): 7-8

Book Reviews: *American Review of Politics* (December 1999), *Social Science Quarterly* (1993)

TECHNICAL & EXPERT REPORTS

Ronald Keith Gaddie. 2010. Supplemental Analysis. Submitted in *Lepak v. City of Irving, Texas;* No. 03-CV-0277P (Northern District of Texas) September 12 2010.

Ronald Keith Gaddie. 2010. *EXPERT REPORT OF RONALD KEITH GADDIE, Ph.D.* Submitted in *Lepak v. City of Irving, Texas;* No. 03-CV-0277P (Northern District of Texas) June 7 2010.

Ronald Keith Gaddie. 2007. *Supplemental Report Of Ronald Keith Gaddie Ph.D.* Submitted in *U.S. v. Port Chester,* No. 06 Civ. 15173 (Southern District of New York). May 14 2007

'Ronald Keith Gaddie. 2007. *Report of Ronald Keith Gaddie, Ph.D.* Submitted in *U.S. v. Port Chester,* No. 06 Civ. 15173 (Southern District of New York). January 20, 2007

Ronald Keith Gaddie. 2006. *Report of Ronald Keith Gaddie, Ph.D.* Submitted in *Large v. Fremont County, Wyoming,* No. 05-CV-270J (D.Wy.) November 2, 2006.

Ronald Keith Gaddie. 2006. *Supplemental Testimony.* Submitted to the United States Senate Committee on the Judiciary in Response to Written Questions received from Senators Coburn, Cornyn and Kohl, June 16, 2006.

Charles S. Bullock III and Ronald Keith Gaddie. 2006. *Impact of Using Non-Hispanic White Data.* Prepared for submission to the American Enterprise Institute and the United States Senate Judiciary Committee, May 24 2006.

Ronald Keith Gaddie. 2006. *On the Need for Renewal of Section 5 of the Voting Rights Act.* Prepared for presentation to United States Senate Judiciary Committee, Hearing on "The Continuing Need for Section 5 Preclearance." Washington, DC May 16 2006.

Ronald Keith Gaddie. 2006. *Supplemental Rebuttal Rejoinder To The Supplemental Rebuttal Declaration Of Theodore S. Arrington Ph.D.* Prepared for Osceola County, Florida, for submission in *United States of America v. Osceola County, Florida,* April 30 2006.

Ronald Keith Gaddie. 2006. *Rebuttal Report Of Ronald Keith Gaddie Ph.D.* Prepared for Osceola County, Florida, for submission in *United States of America v. Osceola County, Florida,* April 3 2006

Ronald Keith Gaddie. 2006. *Report Of Ronald Keith Gaddie Ph.D.* Prepared for Osceola County, Florida, for submission in *United States of America v. Osceola County, Florida,* March 3 2006

Ronald Keith Gaddie.2005. *The Renewal of Section 5 of the Voting Rights Act: Some Facts and Some Thoughts.* Prepared for presentation to United States House of Representatives Judiciary Committee, Sub-committee on the Constitution Oversight Hearing on "The Voting Rights Act: The Continuing Need for Section 5." Washington, DC October 25 2005.

Ronald Keith Gaddie.2005. *The Problem, the Opportunity, and Some Thoughts for Discussion of the Renewal of Section 5 of the Voting Rights Act.* Prepared for presentation to the United States Commission on Civil Rights, Washington, DC October 7 2005.

Ronald Keith Gaddie. 2005. *Evaluation of the Prospective Performance of At-large Cumulative Voting Versus Single-member Districts in the Election of the Commission of Charles Mix County, South Dakota.* Prepared for Gunderson, Palmer, Goodsell, and Nelson LLP and the County of Charles Mix, SD, March 25 2005.

Ronald Keith Gaddie. 2004. *Oklahoma State Senate Competitiveness Analysis.* Prepared for Wilson Research Strategies, December 29 2004.

Ronald Keith Gaddie. 2004. *Magazu Senate Candidacy Feasibility Analysis.* Prepared for Wilson Research Strategies, December 13 2004.

Ronald Keith Gaddie. 2004. *Strategic Analysis: Colorado Springs Convention Center Task Force Survey.* Prepared for Wilson Research Strategies, December 5 2004..

Ronald Keith Gaddie. 2003. *Expert Report of Ronald Keith Gaddie, Ph.D.* In *Sessions v. Perry* (2:03-CV-354, United States Federal Court for the Eastern District of Texas, 2003). Prepared for the State of Texas, November 21, 2003.

Ronald Keith Gaddie. 2003. *Expert Report of Ronald Keith Gaddie, Ph.D.* In *Larios, et al., v. Perdue, et al.,* (United States District Court for the Northern District of Georgia, Atlanta Division, 1:03-cv-0693). Prepared for the Republican Party of Georgia, October 27, 2003.

Ronald Keith Gaddie. 2003. *Affidavit of Ronald Keith Gaddie.* In *Cottier et al. v. City of Martin,* South Dakota. (United States Federal Court, District of South Dakota, Western Division, civ.02-5021). Prepared for the City of Martin, South Dakota, September 30, 2003, in support of a Daubert challenge.

Ronald Keith Gaddie. 2003. "An Evaluation of Racial Polarization and the Election of Minority Legislative Candidates of Choice in the Vicinity of Virginia Congressional Districts 3 and 4." Prepared for *Hall v. Commonwealth,* June 2003.

Ronald Keith Gaddie. 2002. *Expert Report of Ronald Keith Gaddie, Ph.D. [Evaluation of Kankakee County, Ill. County Commission Districts].* In *Jackson v. County of Kankakee, Ill.* (United States Federal Court, Central District of Illinois, Urbana Division, 01-cv-01-2295). Prepared for the Kankakee County Commission. October 4,

2002.

Ronald Keith Gaddie. 2002. *Assessment of Minority Vote Dilution in the 2002 Bexar County Republican Primary.* Prepared for the Bexar County Republican Primary. July 20 2002.

Ronald Keith Gaddie. 2002. *An Evaluation of Voter Participation and Vote Choice in Proposed Congressional Districts 3 and 4, Sb-8 (Crittenden Plan).* Prepared for the Attorney General of Virginia. June 6 2002.

Ronald Keith Gaddie. 2002. *An Evaluation of Voter Participation and Vote Choice in Virginia's 4th Congressional District.* Prepared for the Attorney General of Virginia. May 30 2002.

Ronald Keith Gaddie. 2002. *Expert Report of Ronald Keith Gaddie Ph.D. [Evaluation of proposed Oklahoma Congressional Districts].* In *Armstrong v. Taylor et al,* (State Court of Oklahoma for Oklahoma County, 2002). Prepared for the Oklahoma House of Representatives and Senate. April 19 2002.

Ronald Keith Gaddie. 2002. *Expert Report of Ronald Keith Gaddie [Wisconsin Assembly and Senate Districts].* In *Jensen & Panzer v. State Election Board* (Case No. 01-C-121 United States Federal Court for the Eastern District of Wisconsin, 2002). Prepared for the Speaker of the Wisconsin Assembly and Wisconsin Senate Republicans. March 13 2002.

Ronald Keith Gaddie. 2002. *Rebuttal to Mayer and Canon: Supplemental Report of Ronald Keith Gaddie [Wisconsin Assembly and Senate Districts].* In *Jensen & Panzer v. State Election Board* (Case No. 01-C-121 United States Federal Court for the Eastern District of Wisconsin, 2002) Prepared for the Speaker of the Wisconsin Assembly and Wisconsin Senate Republicans. March 28 2002.

Ronald Keith Gaddie. 2002. *Supplemental Report #2 of Ronald Keith Gaddie [On Wisconsin Assembly and Senate Districts].* In *Jensen & Panzer v. State Election Board* (Case No. 01-C-121 United States Federal Court for the Eastern District of Wisconsin, 2002). Prepared for the Speaker of the Wisconsin Assembly and Wisconsin Senate Republicans. April 7 2002.

Ronald Keith Gaddie. 2001. *Expert Report of Ronald Keith Gaddie, Ph.D. [Of New Mexico Congressional Districts].* In *Michael Jepsen, et al., v. Rebecca Vigil-Jiron, et al.* (CV-2001-2177, Second Judicial District Court, County of Bernalillo, State of New Mexico, 2001-2002, Congressional and State House phases). Prepared for the Governor of New Mexico. December 13 2001.

Ronald Keith Gaddie. 2002. *Supplemental Expert: New Mexico State House Plans.* In *Michael Jepsen, et al., v. Rebecca Vigil-Jiron, et al.* (CV-2001-2177, Second Judicial District Court, County of Bernalillo, State of New Mexico, 2001-2002, Congressional and State House phases). Prepared for the Governor of New Mexico. January 1, 2002.

Ronald Keith Gaddie. 2001. *Expert Report of Ronald Keith Gaddie Ph.D. [Texas Congressional District Proposals].* In *Del Rio v. Perry* (GN003665 353d Judicial Circuit of Texas, 2001). Prepared for the Texas Congressional Republicans. August 19, 2001.

Ronald Keith Gaddie. 2001. *Supplemental Report [Texas Congressional District Proposals].* In *Del Rio v. Perry* (GN003665 353d Judicial Circuit of Texas, 2001). Prepared for the Texas Congressional Republicans. September 2, 2001.

Ronald Keith Gaddie. 2001. *Supplemental Report #2 [Texas Congressional District Proposals].* In *Del Rio v. Perry* (GN003665 353d Judicial Circuit of Texas, 2001). Prepared for the Texas Congressional Republicans. September 6, 2001.

Ronald Keith Gaddie. 2001. *Supplemental Report #3 [Texas Congressional District Proposals].* In *Del Rio v. Perry* (GN003665 353d Judicial Circuit of Texas, 2001). Prepared for the Texas Congressional Republicans. September 6, 2001.

Note: (Reports for *Del Rio v. Perry* inclusive in expert report for *Balderas, et al v. Perry et al.* (6:01-CV-

158, United States Federal Court, Eastern District of Texas, 2001)

Ronald Keith Gaddie. 1999. *Survey of Oklahoma Attitudes Regarding Capital Punishment: A Survey Conducted For The Oklahoma Indigent Defense System.* Norman, Oklahoma, August 1999. [Cited by the United States Supreme Court in *Atkins V. Virginia,* certiorari to the Supreme Court of Virginia No. 008452. Argued February 20, 2002. Decided June 20, 2002]

Ronald Keith Gaddie. 1993. *The Policy Dimension of Addressing Global Climate Change.* Tulane/Xavier Center for Bioenvironmental Research White Paper, New Orleans.

Ronald Keith Gaddie and Rick L. Travis. 1992. *A Statistical Analysis of Georgia's Juvenile Justice System: Retrospective Investigation of Race Disparity.* Contracted study to the Atlanta Journal-Constitution.

Rick L Travis and Ronald Keith Gaddie. 1992. *Follow-up Analysis to "Georgia's Juvenile Justice System".* Contracted study to the Atlanta Journal-Constitution.

CONFERENCE PAPERS & PRESENTATIONS

Justin J. Wert, Ronald Keith Gaddie, and Charles S. Bullock III. 2011. "Citizens United and the Rein of the Laggard Court" To be presented at the annual meeting of the Southern Political Science Association, New Orleans, January 2011.

Scott E. Buchanan and Ronald Keith Gaddie. 2010. The Shifting Vote in the Hill Country South, 1992-2008.Presented at the annual meeting if the Southern Political Science Association, Atlanta, January 2010.

Ronald Keith Gaddie, Justin J. Wert, and Charles S. Bullock III, 2010. Before KKV and APD, V.O. Key: *Southern Politics* and Social Science Methodology, Part II. Presented at the annual meeting if the Southern Political Science Association, Atlanta, January 2010.

Ronald Keith Gaddie and Justin Wert. 2009. Before KKV, V.O. Key: *Southern Politics* and Social Science Methodology. Prepared for presentation at the Unlocking V. O. Key Conference at the Diane D. Blair Center of Southern Politics and Society at the University of Arkansas, April 1-3 2009.

Justin Wert, Ronald Keith Gaddie, and Charles S. Bullock III. 2009. Sunset Amendments: Is the Voting Rights Act an 'Unenumerated Right'? Presented at the annual meeting of the Southern Political Science Association, New Orleans, LA, January.

Charles S. Bullock III, Ronald Keith Gaddie, and Justin Wert. 2008. Electoral College Reform And Voting Rights. Presented at the annual meeting of the Southwestern Political Science Association, Las Vegas, NV, March.

Ronald Keith Gaddie, Michael D. Jones, and Charles S. Bullock III. 2008. Elections to Open Seats in the US House, 1996-2006. Presented at the annual meeting of the Southwestern Political Science Association, Las Vegas, NV, March.

Ronald F. Peters, Jr., Matthew Field, and Ronald Keith Gaddie. 2008. The Hastert Rules: Majority Party Governance in the U.S. House of Representatives. Presented at the annual meeting of the Southern Political Science Association, New Orleans, January.

Ronald Keith Gaddie. 2007. "Ambition's Edge." The 2007 Lou Watkins Lecture, East Central University, Ada, Oklahoma, October 9 2007.

Rebecca JoAnn Cruise and Ronald Keith Gaddie. 2007. War Votes and War Voters, 2002-2006: The Evolution of the Electoral Consequences of Voting to Declare War. Presented at the annual meeting of the Southern Political Science Association, New Orleans, January.

Charles S. Bullock III and Ronald Keith Gaddie. 2006. A Comparative Analysis of the Impact of the Voting Rights Act. Presented at the annual meeting of the Southwestern Political Science Association, San Antonio, TX, April (Won *Pi Sigma Alpha Best Paper Award*)..

Michael D. Jones and Ronald Keith Gaddie. 2006. Morality and Populism as Narrative and Structure in the 2004 Southern Senate Delegation. Presented at the annual meeting of the Southern Political Science Association, Atlanta, GA, January.

Ronald Keith Gaddie. 2006. Perspective from the Project for Fair Representation on "Preclearance: Is Section 5 Still Needed?" at the John Hope Franklin Center's Conference "W(h)ither the Voting Rights Act? Agreements and Contestations in the Debate over its Renewal." April 7, 2006, John Hope Franklin Center, Duke University, Durham, GA (Invited presentation).

Rebecca JoAnn Cruise and Ronald Keith Gaddie. 2005. War Votes and War Voters: A Further Examination of the Electoral Consequences of Voting to Declare War. Presented at the annual meeting of the American Political Science Association, Washington, DC, September.

Charles S. Bullock III and Ronald Keith Gaddie. 2005. The Political Consequences of an Uncontrolled Redistricting. Presented at the annual meeting of the Southern Political Science Association, New Orleans, LA, January.

Ronald Keith Gaddie and Charles S. Bullock III. 2004. Redistricting Principles and Litigation Strategies. Presented at the annual meeting of the American Political Science Association, Chicago, IL, August.

Ronald Keith Gaddie and Charles S. Bullock III. 2003. Bridging the Loss of Institutional Memory in the Term-Limited legislature: Institution-Building in the Maine Legislature. Presented at the annual meeting of the American Political Science Association, Philadelphia, PA, August.

Charles S. Bullock, III, Ronald Keith Gaddie, and Ben Smith. 2003. White Voters, Black Representatives. Presented at the annual meeting of the Southwestern Political Science Association, San Antonio, TX, April. (Won the *Jewell Prestage Award* for Best Paper on Gender, Race, Ethnicity, and Political Behavior).

Charles S. Bullock, III, Ronald Keith Gaddie, and Donna R. Hoffman. 2002. White Southern Voters Who Bring Their Congressional Preferences Into Compliance with Their Presidential Preferences. Presented at the annual meeting of the American Political Science Association, Boston, MA, August.

Charles S. Bullock III and Ronald Keith Gaddie. 2002. The Political Impact of the 2002 Reapportionment. Presented to the First Annual Meeting of the Republican National Lawyers Association, San Antonio, TX, August 16-17.

Charles S. Bullock, III, Ronald Keith Gaddie, and Donna R. Hoffman. 2002. Regional Variations in the Realignment of American Politics, 1944-2000. Presented at the annual meeting of the Southwestern Political Science Association, New Orleans, LA, March.

Kimberly C. Gaddie, Ronald Keith Gaddie, and Aleisha Karjala. 2001. Video Style in Open Seat Elections: An Examination of Female-Male Races. Presented at the annual meeting of the Southern Political Science Association, Atlanta, November.

Ronald Keith Gaddie, Charles S. Bullock, III, and Craig A. Williams. 2001. Accuracy of Early Versus Late Predictions of Outcomes in Open House Seats. Presented at the annual meeting of the Southern Political Science Association, Atlanta, November.

Joseph Aistrup and Ronald Keith Gaddie. 2001. Candidate Recruitment and the New Southern Party System. Presented at the annual meeting of the Midwest Political Science Association, Chicago, Il, April.

Thomas Langston and Ronald Keith Gaddie. 2001. Regional Culture and Voting for Force: Do Southerners Just Like to Fight? Presented at the annual meeting of the Southwestern Political Science Association, Fort Worth,

TX, March 2001.

Gary W. Copeland, Ronald Keith Gaddie, Katie Kimberling, and Aleisha Karjala. 2001. Some Fundament Perspectives on the Application of the Death Penalty. Presented at the annual meeting of the Southwestern Political Science Association, Fort Worth, TX, March 2001.

Ronald Keith Gaddie. 2000. A Look Into the 2000 Oklahoma Electorate: Evidence from the OU/Daily Oklahoman Polls. Presented at the annual meeting of the Oklahoma Political Science Association, Oklahoma City University, Oklahoma City, OK, November 17.

Ronald Keith Gaddie. 2000. Testing Some Key Hypotheses of Voter Turnout. Presented at the annual meeting of the Southern Political Science Association, Atlanta, GA, November 2000.

Clair Haeg and Ronald Keith Gaddie. 2000. Pauline Hansen: Racial Threat or Spatial Voting? Some Old Hypotheses Revisited. Presented at the annual meeting of the Southern Political Science Association, Atlanta, GA, November 2000.

M. Lynsey Morris, Jocelyn Jones, and Ronald Keith Gaddie. 2000. Issues, Context, Framing, and Threat: The 1972 Florida Democratic Presidential Primary. Presented at the annual meeting of the Southern Political Science Association, Atlanta, GA, November 2000.

Charles S. Bullock, III, Ronald Keith Gaddie, and Donna R. Hoffman. 2000. Regional Realignment Revisited. Presented at the annual meeting of the American Political Science Association, Washington, DC, August 2000.

James W. Douglas and Ronald Keith Gaddie. 2000. Do State Rainy Day Funds Ease Fiscal Stress? Presented at the annual meeting of the Midwest Political Science Association, Chicago, Ill, April 2000.

Ronald Keith Gaddie, Charles S. Bullock, III, and Anders P. Ferrington. 2000. Voter Turnout in Runoff Primaries. Presented at the annual meeting of the Midwest Political Science Association, Chicago, Ill, April 2000.

Charles S. Bullock, III, Ronald Keith Gaddie, Lesli E. McCollum, and Craig A. Williams. 2000. Predicting Open Seat Election Outcomes on the Basis of Likely Tendencies. Presented at the Annual Meeting of the Southwestern Political Science Association, Galveston, TX, March 18-21.

Ronald Keith Gaddie, Kim U. Hoffman, and Carrie Palmer. 2000. The Role of Gender in Open-Seat Elections, 1982- 1998. Presented at the Annual Meeting of the Southwestern Political Science Association, Galveston, TX, March 18-21.

Ronald Keith Gaddie and Charles S. Bullock, III. 1999. What If The Incumbents Went Away? A Look at The Underlying Competitiveness of American Congressional Elections. Presented at the Annual Meeting of the Oklahoma Political Science Association, El Reno, Oklahoma, November 11-12.

Ronald Keith Gaddie, Kim U. Hoffman, and Carrie Palmer. 1999. The Role of Gender in Open-

Seat Elections. Presented at the Annual Meeting of the Oklahoma Political Science Association, El Reno, Oklahoma, November 11-12.

Joseph Aistrup and Ronald Keith Gaddie. 1999. Candidate Recruitment and the New Southern Party System. Presented at the annual meeting of the Southern Political Science Association, Savannah, GA, November 3-6.

Ronald Keith Gaddie and Matthew D. Brown. 1999. "The Hopes Which Lie in the Hearts of Young Men" Part 2: Learning to Legislate, the Next Generation. Presented at the annual meeting of the Southern Political Science Association, Savannah, GA, November 3-6.

Craig A. Williams and Ronald Keith Gaddie. 1999. Friends and Neighbors Donate: How Social Networks Finance and Affect Legislative Campaigns. Presented at the Annual meeting of the American Political Science Association, Atlanta, GA, September 2-5.

Ronald Keith Gaddie. 1999. "The Hopes Which Lie In The Hearts of Young Men" Part I: The Pursuit of Political Ambition. Presented at the annual meeting of the Southwestern Political Science Association, San Antonio, Texas, March 1999.

Ronald Keith Gaddie, Shad D. Satterthwaite, and Jonathan D. Mott. 1998. Partisan Dimensions of the Corporate Realignment in Congressional Campaign Financing. Presented at the annual meeting of the American Political Science Association, Boston, August 1998.

Charles S. Bullock, III, Ronald Keith Gaddie, Scott E. Buchanan, and Donna R. Hoffman. 1998. The Lost Sixth: Disappearing White Democrats in Southern Congressional Elections. Presented at the annual meeting of the American Political Science Association, Boston, August 1998.

Ronald Keith Gaddie and Lesli McCollum. 1998. Estimating the Incumbency Advantage: A New Approach To An Old Problem. Presented at the annual meeting of the Southwestern Political Science Association, Corpus Christi, TX March 18-20 (Won *Pi Sigma Alpha Best Paper Award*).

Ronald Keith Gaddie and Donna R. Hoffman. 1998. Cry "Realignment!" and Let Slip the Hounds of Social Science: Partisan Percolations, Dynamic Growth, and Critical Events in Southern Politics. Presented at the Citadel Symposium on Southern Politics, Charleston, South Carolina, March 1998.

Ronald Keith Gaddie, Charles S. Bullock, III, and Scott E. Buchanan, with the assistance of Andrew Hicks. 1997. What is so Special About Special Elections? Presented at the annual meeting of the Southern Political Science Association, Virginia Beach, Virginia, November 1997 (Nominated for *Pi Sigma Alpha Best Paper Award*).

Ronald Keith Gaddie and Jonathan D. Mott. 1997. Realignment or Redux? The 1996 Open Seat Congressional Elections. Presented at the annual meeting of the Southwestern Political Science Association, New Orleans, March 1997 (Nominated for *Pi Sigma Alpha Best Paper Award*).

Ronald Keith Gaddie, Charles S. Bullock, III, and Scott E. Buchanan. 1996. The Antecedent Effects of Retirement and Redistricting on Southern House Elections, 1992-1996. Presented at the annual meeting of the Southern Political Science Association, Atlanta, Georgia, November 1996.

Ronald Keith Gaddie and John C. Kuzenski. 1996. Financing Open Seat Congressional Elections, 1980-1994: The Rise and Decline of the Bipartisan Strategy Among Private-Sector Interests. Presented at the annual meeting of the Southwestern Political Science Association, Houston, Texas, March 1996.

Rick Travis and Ronald Keith Gaddie. 1996. And the Winner Is . . .: The Politics of Choice in Defense Allocation. Presented at the annual meeting of the Southwestern Political Science Association, Houston, Texas, March 1996.

Ronald Keith Gaddie and Nina Joshi. 1996. Minority and Elite Attitudes Toward Environmental Risk: The Case of Savannah River Site. Presented at the Citadel Symposium on Southern Politics, Charleston, South Carolina, March 1996.

Charles S. Bullock, III, and Ronald Keith Gaddie. 1995. The Experience Factor in Congressional Runoffs. Presented at the annual meeting of the Southern Political Science Association, Tampa, Florida, November 1995.

Russell Keith Johnson, Ronald Keith Gaddie, and John K. Wildgen. 1995. Can Geographic Information Systems Find a Role in Risk Assessment and Environmental Policy Formulation? Presented at the annual meeting of the Southern Political Science Association, Tampa, Florida, November 1995.

Ronald Keith Gaddie and John C. Kuzenski. 1995. Slick Willie, Waylon, and Me: Thematic Adultery Songs in the Career of Bill Clinton. Presented at the annual meeting of the Southwestern Political Science Association, Dallas, Texas, March 1995.

Ronald Keith Gaddie. 1995. Open Seats: Understanding Republican Frustration and Success in the South, 1982-1994. Presented at the annual meeting of the Southwestern Political Science Association, Dallas, Texas,

March 1995.

Ronald Keith Gaddie, James L. Regens, and Eileen Jones. 1994. State Assumption of Environmental Regulation: Lessons from 404 Wetlands Permitting. Presented at the annual meeting of the Southern Political Science Association, Atlanta, Georgia, November 1994.

Ronald Keith Gaddie and Charles S. Bullock, III. 1994. Structural and Elite Influences on Female Congressional Candidate Emergence. Presented at the annual meeting of the Southern Political Science Association, Atlanta, Georgia, November 1994.

Ronald Keith Gaddie and John C. Kuzenski. 1994. Political Shirking and Legislative Specialization in the U.S. Senate. Presented at the annual meetings of the Southwestern Political Science Association meeting, San Antonio, Texas, March 1994.

Ronald Keith Gaddie and James L. Regens. 1994. Interest Group Allocations in Open Seat Senate Elections: Is There a Political Futures Market? Presented at the annual meeting of the Southwestern Political Science Association, San Antonio, Texas, March 1994.

Ronald Keith Gaddie and Charles S. Bullock, III. 1994. Voter Turnout and Candidate Participation Effects of Affirmative-Action Districting. Presented at the Citadel Symposium on Southern Politics, Charleston, South Carolina, March 1994

Ronald Keith Gaddie and James L. Regens. 1994. Transactional Relationships of Interest Groups and Legislators: An Empirical Test of Madison's Model. Presented at the Murphy Institute Conference on Constitutions and Constitutionalism, New Orleans, Louisiana, February 1994.

John C. Kuzenski and Ronald Keith Gaddie. 1993. Indicators of Legislative Activity in the United States Senate. Presented at the annual meetings of the Southern Political Science Association meeting, Savannah, Georgia, November 1993.

Charles S. Bullock, III, and Ronald Keith Gaddie. 1993. Candidate Recruitment, Turnover and Turnout. Presented at the annual meeting of the American Political Science Association, Washington, D.C. September 1993.

Ronald Keith Gaddie and James L. Regens. 1993. Cyclical Fundraising By U.S. Senate Incumbents. Presented at the annual meeting of the Southwestern Political Science Association, New Orleans, Louisiana, March 1993.

Charles S. Bullock, III, and Ronald Keith Gaddie. 1992. Runoffs in Jesse Jackson's Backyard. Presented at the annual meeting of the Southern Political Science Association, Atlanta, Georgia, November 1992.

James L. Regens and Ronald Keith Gaddie. 1992. Party Money, PAC Money and Efficient Rent-Seeking by Senate Incumbents. Presented at the annual meeting of the American Political Science Association, Chicago, Illinois, September 1992.

Charles S. Bullock, III, Ronald Keith Gaddie, and John C. Kuzenski. 1992. The Candidacy of David Duke as a Stimulus to Black Voting. Presented at the annual meeting of the Southwestern Political Science Association, Austin, Texas, March 1992.

Ronald Keith Gaddie. 1992. Only When Lightning Strikes? Challenger Quality and the Election of Republican Senators in the South. Presented at the Citadel Symposium on Southern Politics, Charleston, South Carolina, March 1992.

Charles S. Bullock, III, and Ronald Keith Gaddie. 1991. Partisan Challenges in Multi-member and Single-member Districts. Presented at the annual meeting of the Southern Political Science Association, Tampa, Florida, November 1991.

James L. Regens, Ronald Keith Gaddie, and Euel Elliott. 1991. Corporate Campaign Contributions and Rent Seeking in Senate Elections. Presented at the annual meeting of the American Political Science Association,

Washington, D.C., September 1991.

Charles S. Bullock, III, and Ronald Keith Gaddie. 1991. Changing from Multi-Member to Single-Member Districts. Presented at the annual meeting of the Midwest Political Science Association, Chicago, Illinois, April 1991.

James L. Regens, Ronald Keith Gaddie, and Euel Elliott. 1990. Senate Member Attributes, Regulatory Compliance Costs and Corporate PAC Contributions. Presented at the annual meeting of the Southern Political Science Association, Atlanta, Georgia, November 1990.

James L. Regens, Euel W. Elliott, and Ronald Keith Gaddie. 1990. Corporate PAC Contribution Strategies and House Member Attributes. Presented at the annual meeting of the Southwestern Political Science Association, Fort Worth, Texas, March 1990.

James L. Regens, Euel W. Elliott, and Ronald Keith Gaddie. 1990. Modeling the Influence of Regulatory Costs on Congressional Campaign Finance. Presented at the Public Choice meeting, Tucson, Arizona, March 1990.

Euel W. Elliott, Ronald Keith Gaddie, and Gerard Gryski. 1989. Economic and Political Explanations of Republican Southern State Legislative Support: The Short-Term Dynamics 1976-1984. Presented at the annual meeting of the Southern Political Science Association, Memphis, Tennessee, November 1989.

THESIS & DISSERTATION

Ronald Keith Gaddie. 1993. *Southern Myth: Candidates, Money, and Congressional Elections in the 1980s,* doctoral dissertation written under the direction of Charles S. Bullock, III. Reading committee: John Clark, Robert Grafstein, Brad Lockerbie, Edward Kellough.

Ronald Keith Gaddie. 1989. *Southern Democratic Party Factionalism: A Factor Contributing to Republican Success in the Two-Party South*, M.A. thesis written under the direction of Charles S. Bullock, III. Reading committee: Loch K. Johnson, Euel Elliott.

MEDIA COMMENTARY AND INTERVIEWS

Electronic
BBC International Radio
Bloomberg Financial Television's *Money & Politics*.
Business Radio Network (Syndicated)
Christian Science Monitor's "Monitor Radio International"
CNN's *Capital Gang*
Louisiana Weekly Radio (Syndicated)
Louisiana Radio Network
KGOU-FM/KROU-FM (Norman, OK)
KJRH (Tulsa)
KOCO-TV (Oklahoma City)
KOKH-TV (Oklahoma City)
KOKI-TV (Tulsa)
KOSU-FM (Stillwater)
KOTV (Tulsa)
KRMG-FM (Tulsa)
KTIX-FM (Thibodeaux)
KTOK-AM 1000 (Oklahoma City)
KWTV-TV (Oklahoma City)
MS-NBC's "America's Talking"
NPR "Weekend Edition"
OETA Television (PBS)
--*Stateline*
--*Legislative Week*
--*Oklahoma Forum*
--*Oklahoma News Report*
PBS "NewsHour"
Voice of America Radio
WDSU-TV 6 (New Orleans);
Wire 48
WKY-930AM(Oklahoma City)
WWL-870 AM (New Orleans)
WODT-AM (New Orleans)
WQUE-93.3 FM/1280AM (New Orleans)
WSB-TV 2 (Atlanta)

Print
Associated Press
Atlanta Journal-Constitution
The Buffalo (NY) Evening News
The Chicago Tribune
Congressional Quarterly Weekly Report
The Daily Oklahoman
The Economist
The Financial Times (London)
Fort Worth Star-Telegram
Gambit Magazine
Gannett Syndicate
The Hill Newspaper
The Huffington Report
The Kipplinger Business Letter
Los Angeles Times
The McCarville Report
The Montreal Gazette
National Catholic Reporter
National Journal Hotline
New Orleans Times- Picayune
The New York Times
The Norman Transcript
The Oklahoma Daily
The Oklahoma City Journal Record
Oklahoma Gazette
Pew Center for the States
Politico.com
Roll Call
Salon.com Magazine
San Francisco Chronicle
Southern Political Report
The Tulanian Magazine
Tulsa World
USAToday
The Washington Post
Washington Times

Special Contributions, Popular or Editorial Publications
Special contribution to *Roll Call*, "Myths, Realities of Norwood's VRA Amendment" July 13 2006.
Special contribution to *SouthNow* magazine: "Oklahoma: The Republican Realignment Continues" Winter 2004/2005.
Research profile in *USAToday Magazine,* "What if terrorists wipe out congress?" April, 2004.

Regular Contributions, Popular or Editorial Publications and Broadcasts
News contributor and analyst, KWTV-9 (CBS), October 2006-present
News contributor, KGOU-106.3 FM (NPR), Norman, June 2006-present / three-time SPJ award winner for long-format radio (2008, 2009, 2010)
Co-Host, "Tailgate Political Hour with Kyle and Keith", KTLR 890AM, Oklahoma City, September 2006-June 2007
Contributing editor, The McCarville Report, (wwwtmrcon.blogspot.com), December 2006-December 2007.
Columnist, the *Oklahoma Gazette* (progressive weekly), October 2005-present
News contributor/permanent guest host, WKY-930 AM (Citadel Broadcasting), Oklahoma City, July 2004-January 2006
Weekly commentator, KTOK-1000 AM/ KTOK.com (Clear Channel), Oklahoma City, April-November 2004
Webmaster and editor, SoonerPolitics.com (May 2004-May 2007)
Columnist, Southern Political Report/ InsiderAdvantage, November 2005-January 2007

PROFESSIONAL ACTIVITIES AND PUBLIC PRESENTATIONS

Editorial Boards

Editorial Board, *Social Science Quarterly*, 1999-2010; editor (with Kelly R. Damphousse), 2010-present
Editorial Board, *American Review of Politics*, 2002-
Faculty Advisory Board, The University of Oklahoma Press, 2007-present

Manuscript Reviewer
American Journal of Political Science; American Political Science Review, American Politics Quarterly; American Politics Research; American Review of Politics; Electoral Studies, Journal of Politics; Journal of Public Administration Research and Theory, Legislative Studies Quarterly; Policy Studies Journal; Political Research Quarterly; Polity; Public Administration Review, Publius; Social Science Quarterly; Southeastern Political Review; Southern Economic Journal; State and Local Government Review; Western Political Quarterly; Women & Politics; Cambridge University Press; University Presses of Florida; State University of New York Press; MicroCase Publishers; University of Oklahoma Press; Addison Wesley Longman Press.

Program committees
Southwestern Political Science Association, 1997, 2002
Southern Political Science Association, 2000
Southwestern Social Science Association, 1997-2000

Panel Chair
Midwest Political Science Association, 2000
Oklahoma Political Science Association, 1999, 2000
Southwestern Political Science Association, 1993, 1995, 2001, 2007
Southern Political Science Association Meeting, 1995, 1998, 2001, 2005
Conference on Women Transforming Congress, Carl Albert Center for Congressional Studies, 2000
Moderator, McMahon Symposium, Gaylord College of Journalism and Mass Communication, the University of Oklahoma, 2003

Panel Discussant
Southern Political Science Association, 2001, 2005, 2006
Southwestern Political Science Association, 1994, 1995, 1996, 1999, 2000, 2001a, 2001b, 2002a, 2002b, 2003, 2007, 2008
Citadel Symposium, 1994
Midwestern Political Science Association, 2002, 2003, 2005
American Political Science Association, 2002

Roundtable participant
Southwestern Political Science Association, 1998, 2000, 2002, 2003, 2007
Southern Political Science Association Meeting, 1997, 1998, 1999, 2005

Committee and Council Work
President, Southwestern Political Science Association, 2007-2008
President-Elect, Southwestern Political Science Association, 2006-2007
Executive Council, Southwestern Social Science Association, 2007-2008, 2010-present
Executive Committee, Southwestern Social Science Association, 2010-present
Executive Council, Southwestern Political Science Association, 2001-2003
Nominations Committee, Southwestern Social Science Association, 2001-2003
Best Graduate Paper Award Committees:
Southwestern Political Science Association, 1999-2000 (Chair), 2000-2001 (Chair)
Southern Political Science Association (Malcolm Jewell Award) 1996-1997, 1999-2000 (Chair)
Best Undergraduate Paper Award Committee, Southwestern Political Science Association, 2007-08
V. O. Key Book Award Committee, Southern Political Science Association, 2002, 2004, 2011
Pi Sigma Alpha Award Committee, Southwestern Political Science Association, 2002
Membership Committee, Southern Political Science Association, 1998-2001

Membership Committee, Southwestern Political Science Association, 1998-present
Allen Saxe Award Committee, Southwestern Political Science Association, 2004 (Chair)
Workshop Leader, Southwestern Social Science Association, 1998.

COMMUNITY SERVICE

Oklahoma Intercollegiate Legislature Foundation, board member, 2010-
PTA Volunteer, Roosevelt Elementary School, Norman, OK.
Donor representative, Charles S. Bullock III Foundation Fund, University of Georgia, 1998-
Habitat for Humanity Volunteer (August 1994-96)
Irish Channel Neighborhood Watch; block captain (June 1993-June 1995)
Riverside Homeowners Association (June 1993-June 1995)

UNIVERSITY SERVICE

University
Faculty Advisor, university chapter of the Oklahoma Intercollegiate Legislature, 2010-
Faculty Advisor, OU Bass Fishing Team (OU Anglers), 2007-2009
Faculty Advisory Board, The University of Oklahoma Press, 2007-present
University Athletics Council, University of Oklahoma, 2004-2006
    Council Vice-Chair, 2005-2006
    Chair, Committee on Gender Equity & Compliance, 2005-2006
Campus Faculty Appeals Committee, 2004-
Campus Tenure Committee, University of Oklahoma, 2003-2004, 2007-10 (chair, 2008-2010)
Campus Disciplinary Council, University of Oklahoma, 1997- 2003
Faculty Senate Committee on Committees, University of Oklahoma, 2003-2006
Campus Departmental Review Panel, Office of the Provost, University of Oklahoma, 2003-2004
Freshman Faculty Mentor, The University of Oklahoma, 1999-2000
"Adopt-a-faculty" program, Jones House/ Sooner Center, University of Oklahoma, 1997-1998
University Conflict of Interest Advisory Committee, University of Oklahoma, 1997-99, 2001-03

College
College of Arts and Sciences Academic Misconduct Board, 1998-2000, 2001-

Department/Unit
Committee 'A' (departmental executive committee), 2010-2012
Chair, Special Committee for Promotion and Tenure Criteria, 2008-2009
ICPSR Representative, July 2000-May 2002, January 2003-
Faculty advisor, University of Oklahoma Public Opinion Learning Laboratory, August 1999-July 2004
Graduate Studies Committee, Department of Political Science, University of Oklahoma 1997-
Chair, Graduate Placement Committee, Department of Political Science, 1997- 2002
Chair, Departmental Computerization Task Force, Department of Political Science, 1996-1997
Cortez A.M. Ewing Fellowship selection committee, Department of Political Science University of Oklahoma, 1996-1997, 1998-1999, 1999-2000
Undergraduate Studies Committee, Department of Political Science, University of Oklahoma 1996-1997.
Writing Team Head, Savannah River Site Minority Risk Perception Project, Consortium for Environmental Risk Evaluation, February 1995-April 1996.
Faculty Liaison, Consortium for Environmental Risk Evaluation, Tulane University Medical Center, November

1994-June 1996.
Resident Graduate Assistant (Football), University of Georgia Athletic Department, 1989-1990
Tutor, Student Mentor, Georgia Athletic Association, University of Georgia, 1991-1992

CONSULTING
Strickland, Brockington and Lewis LLP, for the state of Georgia, July 2011-present
Lee Slater Law Office (Oklahoma City) for the Oklahoma State Senate, July 2011-present
Holtzman Vogel PLLC (Washington DC) for the Louisiana House of Representatives, April 2011-present
Mayer Brown & Associates (Chicago) for the Illinois Congressional Republicans, January 2011-present
Michael, Best & Friedrich LLP (Madison) for the Wisconsin General Assembly & Senate, April 2011-present
Gulf County, Florida, March-June 2011.
Schirott, Luetkehans & Garner, P.C., for the Illinois Senate Republicans, June 2010-present
Tripp Scott Attorneys at Law, on behalf of the Florida Senate, July 2010-January 2011
Gray Robinson P.A. on behalf of the Florida House of Representatives, July 2010-January 2011
Lynn Tollitson Pinker Cox LLP, for plaintiffs in *Lepak et al. v. City of Irving, Texas,* June 2010-present.
Strickland, Brockington and Lewis LLP, for the state of Georgia, August 2007
Piscionere & Nemarow, P.C., on behalf of Village of Port Chester, New York, December 2006-June 2007
Mountain States Legal Foundation, on behalf of Fremont County, Wyoming, October 2006- February 2007
L'Abbate, Balkan, Colavita & Contini LLP on behalf of Osceola County and the City of Kissimmee, November 2005-July 2006
Office of the Attorney General of Oklahoma (pro bono consultation), September 2005
The Blum-Thernstrom Project on Fair Representation, through the National Research Initiative at the American Enterprise Institute, July 2005-present
Gunderson, Palmer, Goodsell, & Nelson, LLP, for Charles Mix County, South Dakota, March 2005-present; for the City of Martin, SD, September 2003-July 2004
US Representative Ernest Istook, Oklahoma's 5th District, July 2004
Speaker Pro Tempore of the Georgia Senate and Georgia State Republican Party, September 2003-January 2004
Office of the Attorney General, State of Texas, June 2003-January 2004
Office of the Attorney General, the Commonwealth of Virginia, April 2002-August 2003
Kankakee County, Ill., County Commission, September 2002-December 2002
Bexar County (TX) Republican Party, June 2002-December 2002
Speaker, Oklahoma House of Representatives and President Pro Temp, Oklahoma Senate, February-June 2002
Wisconsin General Assembly and Senate Minority Caucus, January-May 2002
Office of Governor Gary Johnson, New Mexico, November 2001-January 2002
Texas Republican Congressional Delegation, July 2001-November 2001
Oklahoma Indigent Defense System, July 1999-October 1999
Mayor Marc Morial's Transition Task Force on the Environment, City of New Orleans, March-May 1994
The Atlanta *Journal-Constitution,* April 1992-December 1992 (Statistical consultant)
The Pardue for Congress Committee, April-July 1992 (Strategist/pollster) Democratic candidate for Georgia congressional district 10

Expert Testimony
Lepak et al. v. City of Irving, Texas, 3:10-cv-0277-P (Northern District of Texas), June 7 2010
U.S. v. Village of Port Chester, NY No. 06 Civ. 15173 (Southern District of New York). February 22, 2007
Large et. al v. Fremont County, Wyoming, No. 05-CV-270J (D.Wy.) February 8, 2007.
*United States v. Osceola County, Florida, (*6:05-cv-1053-ORL-3,1 United States Federal Court for the Middle District of Florida, June 22 2006).
Hearings of the US Senate Judiciary Committee, on the Renewal of the Section 5 Voting Rights Act, Washington,

DC, May 16 2006.
Hearings of the US House of Representatives Judiciary Committee, Subcommittee on the Constitution, on the Renewal of the Section 5 Voting Rights Act, Washington, DC, October 25 2005.
Briefing of the US Commission on Civil Rights on the Renewal of the Voting Rights Act, Washington, DC, October 7 2005.
*Larios v. Cox (*1:03-CV-0693 United States Federal Court for the Northern District of Georgia, January 2004).
*Sessions v. Perry (*2:03-CV-354, United States Federal Court for the Eastern District of Texas, 2003, by deposition admitted as direct testimony, December 2003).
Public hearing of the Committee on Jurisprudence, Texas Senate, Austin Texas, July 24, 2003.
Armstrong v. Taylor et al, (State Court of Oklahoma for Oklahoma County, 2002)
Jensen & Panzer v. State Election Board (Case No. 01-C-121 United States Federal Court for the Eastern District of Wisconsin, 2002)
Michael Jepsen, et al., v. Rebecca Vigil-Jiron, et al. (CV-2001-2177, Second Judicial District Court, County of Bernalillo, State of New Mexico, 2001-2002, Congressional and State House phases)
Balderas, et al v. Perry et al. (6:01-CV-158, United States Federal District Court for the Eastern District of Texas, 2001)
Del Rio v. Perry (GN003665 353d Judicial Circuit of Texas, 2001)

REFERENCES

Charles S. Bullock, III
Department of Political Science
The University of Georgia
Athens, GA 30602
(706) 542-2946
(706) 769-9780
csbullock57@hotmail.com

Kevin B. Grier
Department of Economics
University of Oklahoma
Norman, OK 73019
(405) 325-0311
angus@ou.edu

Kelly R. Damphousse
Associate Dean
College of Arts and Sciences
University of Oklahoma
Norman, OK 73019
(405) 325-0311
kdamp@ou.edu

Todd G. Shields
Dean of the Graduate College
The University of Arkansas
Fayetteville, AR 72701
479-575-6440
tshield@uark.edu

Greg Russell
Chair, Department of Political Science
University of Oklahoma
Norman, OK 73019
(405) 325-2061
grussell@ou.edu

Ronald E. Weber
Department of Political Science
University of Wisconsin, Milwaukee
Bolton Hall 640
Milwaukee, WI 53201
(414) 229-6642
rweber@uwm.edu

REBUTTAL REPORT OF RONALD KEITH GADDIE, Ph.D.

Submitted in
Baldus, et al., v. Brennan, et al. 2:2011cv00562 (E. D. Wisc.)

January 13, 2012

EXHIBIT
I

1. Corrections to Report of December 13 2011

In Table 9, the incumbent core shares for members sharing the pairing in Senate district 21 were transposed. The correct numbers appear below. The correction does not alter the Senate core retention calculations in Table 8 of the report.

Senate 21	Wirch-D, 22	+4.46%	42.03%
	Wanggaard-R, 21	-3.25%	57.97%

I reviewed and recalculated my largest core retention numbers for the Assembly map. The largest core retention is 66.30%.

In three Assembly districts, errant incumbent core retention values were reported. In district 49, the incumbent core retention is 95.8% (rather than 95.69%); in Assembly district 56, the incumbent core retention is 65.20% (rather than 63.66%); and in Assembly district 78, the incumbent core retention is 32.10% (rather than 26.90%). The corrected statistics for incumbent cores that appear in Table 8 of my initial report are:

	All Assembly Members	Assembly Dem. Inc. (N = 39)	Assembly Rep. Inc. (N = 59)	Assembly Ind. Inc. (N = 1)
Average	61.72%	54.74%	65.88%	88.33%
Low	8.55%	8.55%	17.74%	88.33%
High	99.91%	99.91%	97.67%	88.33%

2. Movement of District Lines in Act 44, the Congressional Map

The most recent Wisconsin congressional remap under Act 44 maintains an average core of 84.33%. The number of persons moved in Wisconsin in 2011 under Act 44 is just under 892,000 -- 15.67% of the state.

Sometimes states achieve population equality in their districts by only moving around a few thousand people. For example, mapmakers and stakeholders may agree to maintain the status quo. But, just because a least change approach can fix the population deviation in a map, it does not necessarily follow that the 'least-change' described by Professor Nordheim must be the approach used by the map drawers. It also does not follow that partisan gerrymandering is at work when a legislature, court, or commission moves more people than 'necessary'.

Consider a state where the redistricting process is held in high regard by political scientists – Iowa. In Iowa, a commission handles redistricting subject to a variety of criteria, including the mandate to use counties as district building blocks. In 1992, Iowa crafted a congressional plan

with five districts. Ten years later, the state remapped, to comply with one-person, one-vote requirements. Table 1 (below) shows the deviations from ideal for the Iowa map before redistricting, which summed to 181,419 persons. But, when Iowa's commission determined its final map, 1,226,004 persons were in a district moved away from the core of their old district (see also Maps 1a and 1b). Iowa's commission moved forty percent of the state's residents into districts where they would have a new congressional representative.

3. Compactness in Act 44, the Congressional Map

Professor Nordheim reports five compactness scores for the previous congressional districts and the districts from Act 44. An examination of his compactness data indicates that there is a positive correlation between the old and new district compactness across all five measures.

For two of the measures (the Polsby-Popper score and the Circumference/Perimeter) the relationship is significant at better than a .05 level; for the other three scores, the correlation is significant at better than a .10 level. The changes in compactness are not statistically significant from the old map to the Act 44 map. A paired-samples t-test of the district compactness for the 2002 and 2011 maps showed no significant difference on any of the five compactness measures from the old map to Act 44.

4. Professor Mayer reports that, of the ten least compact districts on the smallest circumscribing circle (SCC) score, six are Democratic districts and four are Republican districts. These districts are not identified in the report, but an examination of his compactness reports indicates the ten worst districts on the SCC score are districts 1, 37, 64, 93, 76, 70, 13, 84, 62, and 33. The SCC is one of four compactness scores that Mayer examines – and, considering his 2002 expert report in *Jensen v. Panzer* (in which he examined nine compactness measures) notes that it is inappropriate to rely on just one compactness measure.[1]

When one looks at the other compactness scores[2] of the ten districts that rank in the bottom ten on the smallest circle score, just two – districts 1[3] and 64 – also rank in the bottom ten on the convex hull, perimeter to area, and equal circle scores (Table 2). Indeed, three of the districts he identified as the least compact, also rank among the top half of compact districts on the other three compactness measures (districts 13, 62, and 84), and two rank in the top three quartiles for compactness on at least two measures (districts 76 and 93).

The same divergence occurs at the other end of the SCC compactness distribution (Table 3). Of the twenty most compact districts on the SCC noted by Professor Mayer, nine are among the

[1] Professor Nordheim correctly notes that different measures of compactness capture different information about the shapes of districts. Compactness measures are designed to summarize information about attributes of maps – and political scientists and the courts recognize that compactness is measured in the context of an entire map.
[2] All compactness scores in this analysis were drawn from data and documents provided by Professor Mayer.
[3] District 1 presents a special challenge and will always rank as relatively low on compactness scores, because it is the Door Peninsula.

twenty most compact on the Convex Hull measure (districts 8, 21, 27, 30, 31, 65, 80, 82, 98); two (districts 44 and 58) do not rank in the top half and district 44 ranks in the bottom quintile.

Seven are also among the twenty most compact on the Polsby-Popper (PTA) measure (districts 8, 21, 28, 30, 55, 80, 82); five districts (districts 31, 44, 53, 58, 78) do not rank in the top half, and districts 44 and 78 rank among the least ten compact. District 27 ranks 50th of 99 districts.

Seven of the districts identified are also among the twenty most compact on the equal circle score (districts 8, 21, 30, 55, 82); seven districts (districts 27, 44, 53, 58, 65, 73, 78) do not rank in the top half (and districts 44 and 78 rank among the least five compact).

Professor Mayer's critique relies on emphasizing one measure of compactness, the smallest circle score. When other measures of compactness are examined, these districts are not consistently the most (or least) compact districts in the Assembly.[4]

5. There is no significant relationship between the party of an incumbent and the compactness of the district where the incumbent is placed. Professor Mayer's initial analysis attempts to suggest a relationship between the compactness of the assembly districts in Act 43 and the party of the incumbent. In Table 4, linear regression analysis is used to test the statistical significance and direction of the relationship between party incumbents in a district and compactness. The results show no statistically significant relationship between the presence of incumbents of either party, and district compactness, on any of the four measures of compactness presented by Professor Mayer.

7. Delayed voting is not unusual. And, in Wisconsin, it is not excessive.

[4] Measures of compactness are generally correlated. The SCC score has the weakest correlation to the other measures of compactness provided in his report.

	SCC	PTA	Convex Hull	CircumTest	Total Perimeter	Dist. Area
SCC		.317**	.475**	.237*	-0.008	0.112
PTA			.664**	.974**	-0.086	0.151
Convex Hull				.700**	-0.065	0.087
CircumTest					-0.072	0.16
Total Perimeter						.902**
N=99						

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

Professor Mayer criticizes the delayed voting effect of the Senate districts in Act 43. I previously noted in my initial report that 299,688 persons (5.27% of all persons in Wisconsin) lived in a Senate district where delayed voting would occur. When one accounts for the 164,843 persons who reside in delayed-voting districts where a recall was also conducted in 2011, only 134,845 will be subject to the six-year voting delay. As a matter for comparison, I note that, in 2002, four maps were advocated by Professor Mayer to the Court for possible adoption. As indicated in Table 5, all four of these maps had proportionally greater delayed voting in the Wisconsin Senate than under Act 43. And, despite a six percent increase in Wisconsin's population during the decade, two plans advocated by Professor Mayer actually had greater numbers of voters affected by delayed voting?

In my initial report, I noted that nineteen states including Wisconsin have delayed voting effects in their state Senates,[5] and I reported data from Oklahoma showing higher numeric and proportional delayed voting (just under 8.0% of the state).

Delayed voting data from six states for this redistricting cycle – Wisconsin, Oklahoma, Oregon, Ohio, Missouri, and California -- appear in Table 6. Of six states examined, the range of persons moved into districts and experiencing delayed voting varies from a low of 115,769 in Oregon to a high of 3,972,984 in California. In percentage terms, the low is 3.02% in Oregon and the high is 10.66% in California. Wisconsin had the third-lowest raw number of persons in delayed voting studied (just behind Oklahoma), and the second-lowest percent of the state experiencing delayed voting (behind Oregon).[6]

8. Difference of Means Test for Core Retention in the Senate and Assembly under Act 43.

The application of a difference of means test for the level of incumbent core retention for the Senate indicates that there is no significant difference in the core retention by Democratic versus Republican incumbent senators ($t = .252$, unequal variances assumed; see Table 7).

In the Assembly, there is a significant difference between the average core retention for the Democratic versus Republican incumbents ($t = -2.049$, unequal variances assumed). However, if one examines the nine Democratic incumbent districts with the lowest core retention, explanations exist for their low cores.

Some disparities in the core retention of Democratic incumbent districts are explained by what appear to be specific decisions in the crafting of the map. Examples occur in three areas of the map: southeastern Wisconsin surrounding the cities of Kenosha and Racine; in and around the City of Milwaukee; and in the city of Madison and Dane County.

---

[5] Alaska, Arizona, California, Colorado, Georgia, Idaho, Illinois, Kansas, Louisiana, Michigan, Minnesota, Montana, Nevada, New Jersey, North Dakota, Oregon, Rhode Island, and Washington also have election recall. Virginia has a recall petition, but the recall is made via a recall trial (similar to an impeachment) rather than a vote of the people.

[6] There is a 17-person discrepancy in the number of persons in the Oklahoma disfranchisement split in the data presented in Table 6 versus the data in my initial report. This discrepancy arises from my initial calculations.

8.1 Kenosha-Racine: Five districts around Kenosha and Racine have an average largest core retention of 52.6%. There is one incumbent pairing (district 61) and one open seat (district 65). Just under 64% of district 66 is at the core of district 61.

The districts concentrate African-American and Hispanic voters as a minority 'influence' in Senate 22 (Assembly 64, 65, 66). The new senate district now encompasses all of City of Kenosha and most of the City of Racine, while Senate district 21 largely encompasses the rural townships of Racine and Kenosha counties.

District	Largest Core	Incumbent Core
Assembly 61	63.9%	63.9%* 36.1%**
Assembly 63	40.4%	40.4%
Assembly 64	48.9%	48.9%
Assembly 65	50.2%	Open seat
Assembly 66	59.7%	59.7%

*Core from the previous 66th Assembly district.
**Core from the previous 65th Assembly district.

8.2 Milwaukee County: Change surrounding the design of the majority minority districts in Milwaukee county is associated with lower core constituency retention in several districts.

In Senate district 3, the core retention is 76.6% -- just below average for all senate districts in Act 43. Senate district three is 47.5% Hispanic population and 7.2% African American population The predecessor district was just over 45.1% Hispanic population.

Assembly districts 7, 8, and 9 are wholly in Senate district 3. Unlike the encompassing senate district, all of the districts have lower core retention rates. The average largest core retention is 45.3%, with a range of 30.9% to 55.3%; the average incumbent core is 33.4%, with a range of 13.9% to 55.3%. Two incumbents are paired in Assembly district 7.

An examination of the pre- and post-redistricting maps shows that the orientation of Assembly districts 7, 8, and 9 are changed from the 2002 map so that they run north-south beside each other, rather than east to west. This change is implemented to craft the majority Hispanic districts 8 and 9, while also crafting district 7 to maintain the Hispanic influence in Senate District 3.

District	Largest Core	Incumbent Core
Assembly 7	30.9%	30.9%* 13.9% **
Assembly 8	55.3%	55.3%
Assembly 9	49.9%	No incumbent

*Core from the previous 7th Assembly district.
**Core from the previous 9th Assembly district.

Assembly districts 11 and 12 have largest core (and incumbent core) retention values of 47.8% and 51.9%, respectively, and were -6.3% and -3.8% from the district ideal population before redistricting. These districts are adjacent to districts 10, 16, and 18, which were, respectively, -10.5%, -8.6%, and -15.8% under the ideal population. All of these districts are majority-African American districts. Districts 11 and 12, already under population, shed additional population from their cores to accommodate repopulating districts 10, 16, and 18 (The core retention numbers for those districts are: for district 10, 66.3%; for 16, 68.5%; and for district 18 61.4%.

African-American Core 1

District	Largest Core	Incumbent Core
Assembly 11	47.8%	47.8%
Assembly 12	51.9%	51.9%

The subsequent movement of 11 and 12 to the north and west further move Assembly districts 22, 23, and 24. These districts have a range of largest core retention between 36.9% and 48.8%, and a range of incumbent core retention from 35.7% to 47.7%. These districts are contained in Senate district 8, which has a largest core (and incumbent core) retention of 73.3%. The Assembly districts within the Senate district are largely rearranged from territory originally shared within old Senate 8. Most of Senate 8's core loss is to majority-black Senate district 4 (33,182 persons).

District	Largest Core	Incumbent Core
Assembly 22	48.8%	35.7%
Assembly 23	36.9%	36.1%
Assembly 24	47.74%	47.7%

8.3 Madison and Dane County: In Madison, the city was previously divided among six Assembly districts. The new map places four whole districts within the city of Madison (48, 76, 77, 78), and the remainder in a fifth district. Two open Dane seats are created in the process, in Assembly district 80 and also a new open seat to the southeast of Madison, Assembly district 47.

District	Largest Core	Incumbent Core
Assembly 77	41.2%	36.1%
Assembly 78	34.9%	32.1%
Assembly 79	50.1%	31.4%
Assembly 80	46.5%	Open seat
Assembly 81	57.6%	57.6%
Assembly 42	54.9%	54.9%
Assembly 47	46.6%*	Open seat
Assembly 48	50.6%**	50.6%**

*From previous 48th Assembly district.
**From previous 81st Assembly district.

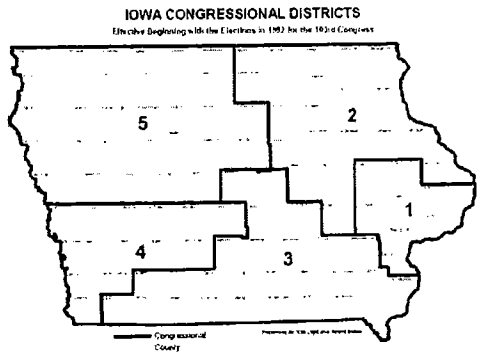
8.4 In Table 8, the Assembly districts examined in sections 10.1, 10.2, and 10.3 are excluded from the difference of means test applied to incumbent core retentions in Table 7. The difference between the Democratic and Republican average incumbent cores is not statistically significant.

Tables and Figures

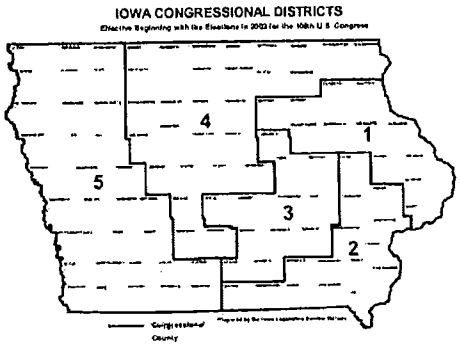
Table 1: Equalizing Populations in Iowa, 2002

District Number, 1992	Deviation from 2000 census ideal, 1992 map	District Number, 2002	How many persons not from largest core in new district?
1	18,572	1	229,038
2	16,408	2	174,391
3	47,642	3	210,704
4	72,137	4	355,874
5	26,660	5	255,997
Sum, total persons deviating from ideal:	181,419	Sum of persons moved from core of old district with a different representative after redistricting	1,226,004

Source: Computed from 2000 US Census



Map 1a: Iowa Districts Effective for 1992-2000



Map 1b: Iowa Districts Effective for 2002-2010

Source: http://www.legis.state.ia.us/Redist/Redist.html

Table 2: The Ten Least-Compact Districts on the Smallest Circle Score, as they Rank on Other Compactness Measures

District	Smallest Circle Score (SCC)	SCC Rank	Convex Hull	Convex Hull Rank	Polsby-Popper (PTA) Score	PTA Rank	Equal Circle	Equal Circle Rank
1	0.10	**99**	0.50	**99**	0.08	**94**	0.28	**94**
37	0.11	**98**	0.64	87	0.14	87	0.41	85
64	0.12	**97**	0.51	**98**	0.08	**93**	0.28	**93**
93	0.13	**96**	0.74	56	0.18	75	0.45	73
76	0.13	**95**	0.65	85	0.24	54	0.52	54
70	0.14	**94**	0.66	83	0.16	83	0.43	82
13	0.14	**93**	0.89	4	0.26	45	0.57	39
84	0.15	**92**	0.80	30	0.29	36	0.6	28
62	0.15	**91**	0.80	29	0.34	24	0.66	14
33	0.15	**90**	0.69	76	0.18	77	0.45	74

Table 3: The Twenty Most-Compact Districts on the Smallest Circle Score, as they Rank on Other Compactness Measures

District	Smallest Circle Score (SCC)	SCC Rank	Convex Hull	Convex Hull Rank	Polsby-Popper (PTA) Score	PTA Rank	Equal Circle	Equal Circle Rank
65	0.45	1	0.85	**9**	0.25	48	0.52	52
36	0.44	2	0.80	25	0.32	29	0.6	27
71	0.44	3	0.81	21	0.27	42	0.53	45
78	0.41	4	0.76	45	0.07	95	0.27	96
73	0.39	5	0.77	37	0.26	47	0.52	51
39	0.38	6	0.77	38	0.33	27	0.59	30
8	0.36	7	0.88	**5**	0.44	**5**	0.66	**12**
21	0.35	8	0.92	**1**	0.55	**2**	0.78	**1**
82	0.35	9	0.90	**2**	0.44	**4**	0.68	**6**
40	0.34	10	0.81	22	0.33	26	0.58	32
27	0.33	11	0.82	**18**	0.25	50	0.52	53
44	0.33	12	0.66	82	0.06	97	0.26	97
80	0.33	13	0.82	19	0.35	**20**	0.62	22
98	0.33	14	0.85	10	0.28	40	0.55	42
28	0.32	15	0.75	47	0.36	18	0.62	21
30	0.32	16	0.88	**6**	0.57	**1**	0.77	**2**
58	0.32	17	0.74	51	0.15	84	0.4	86
31	0.31	18	0.83	**15**	0.23	55	0.53	49
53	0.31	19	0.76	46	0.18	74	0.44	77
55	0.31	20	0.80	26	0.44	**7**	0.7	**3**

Table 4: Party, Incumbency, and Compactness

Smallest Circle Score	b	$s.e._b$	t	Convex Hull	b	$s.e._b$	t
Intercept	.265	.019	13.721	Intercept	.742	.022	33.973
Republican Inc.	-.015	.020	-.732	Republican Inc.	.019	.023	.814
Democratic Inc.	-.033	.021	-1.552	Democratic Inc.	-.028	.024	-1.178
Adjusted R^2	0.006			Adjusted R^2	0.059		
N	99			N	99		
Polsby-Popper/PTA	**b**	**$s.e._b$**	**t**	**Equal Circle**	**b**	**$s.e._b$**	**t**
Intercept	.254	.028	9.042	Intercept	.512	.031	16.732
Republican Inc.	.025	.030	.831	Republican Inc.	.033	.032	1.011
Democratic Inc.	-.026	.030	-.867	Democratic Inc.	-.029	.033	-.867
Adjusted R^2	0.044			Adjusted R^2	0.053		
N	99			N	99		

Table 5: Delayed Voting In Select Maps Proposed to the Court in 2001

	#Persons	% of State*
Democratic Map A	**303,951**	**5.67%**
Democratic Map B	**301,604**	**5.62%**
SB 463	298,749	**5.57%**
Democratic Map C	282,772	**5.27%**
*2000 census		

Table 6: Delayed Voting in Six States, 2012 Apportionment Cycle

State	Votes in 2012	% Delayed	Odd-to-Even	Even-to-Odd	Unchanged	Total Pop.
Oregon	Even	3.02%	132,720	115,769	3,582,585	3,831,074
Wisconsin	Even	5.27%	313,540	299,688	5,073,758	5,686,986
Ohio	Even	7.48%	807,835	862,773	10,728,669	11,536,504
Oklahoma	Odd	7.98%	299,511	304,977	3,146,863	3,751,351
Missouri	Odd	9.89%	592,586	674,786	4,721,555	5,988,927
California	Odd	10.66%	3,972,984	3,895,767	29,385,205	37,253,956

Source: Data compiled by John Diez/Magellan Strategies BR, January 11 2012.

Table 7: Difference of means test, Incumbent Core Retention

Senate	Mean (s_d)	s.e.	*Assembly*	Mean (s_d)	s.e.
Republican (n=17)	.7764 (.1299)	.031	Republican (n=59)	.6588 (.2246)	.029
Democratic (n=16)	.7885 (.1449)	.036	Democratic (n=39)	.5474 (.2592)	.042
	t = 0.252 (p = .803)			t = -2.195 (p = .031)	

Table 8: Difference of means test, excluding districts discussed in sections 8.1, 8.2, and 8.3

Assembly	Mean (s_d)	s.e.
Republican (n=54)	.6746 (.2264)	.031
Democratic (n=26)	.6146 (.2821)	.055
	t = -.948 (p = .349)	

The Milwaukee Journal - May 27, 1984 Browse this newspaper »

La Follette plans quick appeal on redistricting

By Ron Elving
and Margo Huston
of The Journal Staff

Madison, Wis. — State Atty. Gen. Bronson La Follette will appeal the decision by which three federal court judges have invalidated the Legislature's election map.

After meeting with lawyers from La Follette's office, Assembly Speaker Thomas Loftus (D-Sun Prairie) said Saturday the appeal would begin before Federal Judge Terence T. Evans in Milwaukee. He said the appeal would be filed when Evans' court reopened Tuesday morning.

Heartily supporting the appeal Saturday, Gov. Earl said the main issue was whether redistricting was the constitutional function of the Legislature or of the courts. He said he strongly believed it to be the function of the Legislature.

Evans and two other judges struck down the Legislature's Senate and Assembly maps on one defect: it requires 173,976 potential voters to wait two or four years longer than usual to vote for a state senator. The judges said that was unconstitutional and ordered the state to return to the map the judges themselves had drawn in 1982.

Democratic backers of the Legislature's plan, adopted 10 months ago, noted, however, that the judges' own plan would have enforced a similar two-year delay on voters.

According to Ann Jablonski, the

Turn to Districts, Page 12

EXHIBIT
1

State will appeal redistricting ruling

Districts, From Page 1

principal staff architect for the Legislature's redistricting in 1983, the judges' plan would have enforced a two-year voting delay for 529,293 potential voters — more than triple the number the court said had been disenfranchised by the Legislature's plan

Appeal to Evans

She said these would have included voters who chose a senator in 1978 and who, under the usual four-year term, would have chosen another in 1982. The judges' districts would have kept these voters from choosing a senator until 1984, she said.

The appeal to Evans Tuesday will ask for a stay of Friday's order until after the Nov. 6 general election. That would allow the next Legislature to be chosen under the current lines.

Evans is not likely to deal with the appeal personally Tuesday, as he is scheduled to sentence Frank P. Balistrieri that morning. But he is expected to reject the appeal eventually, anyway.

At that stage, state lawyers are expected to appeal directly to the US Supreme Court. Federal law permits appeals from the rulings of special three-judge panels of this kind to bypass the federal appellate court level.

Under usual Supreme Court procedure, the appeal would be referred to the judge handling such matters for this region. That judge, Justice John P. Stevens, may then grant the stay, deny it or refer the matter to the full court.

Neither Stevens nor the full court

The judicial redistricting map could alter the Democrats' hold on the State Senate. Story and maps on Page 8, Part 2.

may now find themselves forced to move back again.

The Legislature's plan, for example, had returned the homes of Sen. Alan Lasee (R-De Pere) and Rep. Francis Byers (R-Clintonville) to their districts. It did the same for Democratic Reps. Gervase Hephner of Chilton, Sharon Metz of Green Bay and Marjorie Miller and David Clarenbach, both of Madison.

The shifting is especially inopportune for some because this is an election year for all Assembly members and half the senators. The most immediate concern is the circulating of nomination papers. Those papers are available June 1 and due July 10, but who can be certain where to circulate them?

Loftus and Cullen said Saturday that, if forced to run in the 1982 districts, the Legislature might ask the State Elections Board to extend the July 10 deadline.

Another option theoretically available would be a special session of the Legislature to alter the 1983 plan and make it acceptable to the judges.

One way to do that would be to order all senators to run this fall, eliminating the disenfranchisement argument. But that would violate the Wisconsin Constitution, and Democratic leaders here Saturday were loathe to consider it.

So the conflict seems to have been reduced to the issue of disenfranchisement.

is expected to rule immediately on the merits of the appeal overall. The crucial, immediate question is that of the stay. It will determine whether the 1984 elections will be held according to the Legislature's map or the judges'.

Ongoing problem

The significance of that difference may mean more to individual legislators and would-be legislators than to the balance of party power here, at least according to the Democratic leadership.

But the Republican leadership, which filed the suit that led to Friday's ruling, says the 1983 plan was drawn to aid Democratic incumbents in crucial districts and so maintain Democratic control.

This partisan argument has been grinding on since the Legislature began trying to adjust its districts to 1980 US Census figures. The judges' 1982 map followed the failure of the Democrat-controlled Legislature to reach a compromise with former Gov. Lee S. Dreyfus, a Republican, who vetoed one attempt. Ironically, it was the Democrats who had took taken the matter to the court in the first place.

The map the judges drew in 1982, generally attributed to Evans, paid little attention to incumbents' wishes and was said by some to favor Republicans. In the November 1982 election, using that map, Democrats nevertheless retained control.

The Legislature then went back at the task of drawing its own battle lines in the spring of 1983. The struggle was again protracted and partisan, but this time the Democrats had their own governor in Earl.

Disruptive to parties

So this time it was the Republicans who felt ill-used and who went back to federal court, in August 1983, asking that the new map be set aside. The case was assigned to Evans, who has been occupied in recent months by the Balistrieri trials.

Evans eventually heard oral arguments on the case last week. Just four days later, the decision of the three-judge panel was released.

It is no surprise that both the judges' plan and the Legislature's would force some voters to sit on the sidelines longer than the Constitution wished.

In fact, any redistricting plan leaves some voters temporarily disenfranchised because of the staggered terms of the State Senate. Population change from district to district, coupled with the tuggings and hauling of floor debate, makes this inevitable.

The judges' ruling Friday recognized that. But the judges' decision argued that this flaw was acceptable in their 1982 plan. They said this was so because they, forced into the fray by the failure of elected officials, were correcting a plan with constitutional defects.

Those defects were, of course, the imbalances created by population shifts between federal censuses in 1970 and 1980.

Absolute necessity

The judges said the legislators who reopened the matter in 1983 were putting aside the court's perfectly usable, constitutionally valid map. Under such circumstances, they argued, the legislators could not ask 173,976 citizens to forego any of their voting rights.

This reflected the so-called requirement of absolute necessity advanced by Gordon Baldwin, the University of Wisconsin — Madison law professor who argued the Republicans' case before Evans.

Democratic legislators had portrayed their effort as a repair and restoration job. About a dozen communities divided or further divided by the judges' plan were reunited, including Green Bay, Neenah, Wausau, Beloit, Janesville, Brookfield, Menomonee Falls and New Berlin.

A third of the districts were left alone. Milwaukee County, for example, was left unchanged. Another third of the districts underwent only minor alterations.

Where changes were made, however, the underlying concern remained the map's power to reorder power in Madison, particularly in the State Senate.

the task of drawing its own district lines in the spring of 1983. The struggle was again protracted and partisan, but this time the Democrats had their own governor in Earl.

Disruptive to parties

So this time it was the Republicans who felt ill-used and who went back to federal court, in August 1983, asking that the new map be set aside. The case was assigned to Evans, who has been occupied in recent months by the Ballstmeri trials.

Evans eventually heard oral arguments on the case last week. Just four days later, the decision of the three-judge panel was released.

Loftus and Senate Majority Leader Timothy Cullen said Saturday that if they lost in the Supreme Court, they would have to abide by the district lines drawn by the judges in 1982 and used in that year's election.

As a practical matter, that prospect is disruptive to members of both parties. Democrats and Republicans alike have been representing their new districts for nearly a year now. Candidates of both parties already have been campaigning among people who now may not be able to vote for them. Conversely, they have been ignoring people who will.

For some candidates, the shift back to the judges' plan means they no longer live in the district they represent. In several cases, legislators have moved in order to comply with the 1982 map or the 1983 map. Some Democratic legislators has portrayed their effort as a repair and restoration job. About a dozen communities divided or further divided by the judges' plan were reunited, including Green Bay, Neenah, Wausau, Beloit, Janesville, Brookfield, Menomonee Falls and New Berlin.

A third of the districts were left alone. Milwaukee County, for example, was left unchanged. Another third of the districts underwent only minor alterations.

Where changes were made, however, the underlying concern remained the map's power to reorder power in Madison, particularly in the State Senate.

"Pride of authorship"

Debate focused on the so-called "top of the ticket" leanings of the districts affected. These figures measured the vote for the top name on the party ticket in statewide elections from 1974 through 1982.

By those figures, the Legislature's plan was said to make 15 seats safe or nearly so for the GOP, 9 for Democrats (9 were considered competitive). The judges' plan was said to have stacked the deck for the GOP in 16 districts and for the Democrats in 10, leaving 7 competitive.

In the Assembly, the same analysis showed the Legislature's plan with 45 seats for Republicans, 36 for Democrats and 18 competitive. The judges' plan there was said to be stacked 50-36-13.

The t

Brandt, Karen J (15243)

From: ecfmaster@wied.uscourts.gov
Sent: Friday, February 10, 2012 7:13 PM
To: ecfmaster@wied.uscourts.gov
Subject: Activity in Case 2:11-cv-00562-JPS-DPW-RMD Baldus et al v. Brennan et al Declaration

This is an automatic e-mail message generated by the CM/ECF system. Please DO NOT RESPOND to this e-mail because the mail box is unattended.
*****NOTE TO PUBLIC ACCESS USERS*** Judicial Conference of the United States policy permits attorneys of record and parties in a case (including pro se litigants) to receive one free electronic copy of all documents filed electronically, if receipt is required by law or directed by the filer. PACER access fees apply to all other users. To avoid later charges, download a copy of each document during this first viewing. However, if the referenced document is a transcript, the free copy and 30 page limit do not apply.**

United States District Court

Eastern District of Wisconsin

Notice of Electronic Filing

The following transaction was entered by Kelly, Daniel on 2/10/2012 at 7:12 PM CST and filed on 2/10/2012
Case Name: Baldus et al v. Brennan et al
Case Number: 2:11-cv-00562-JPS-DPW-RMD
Filer:
Document Number: 131

Docket Text:
DECLARATION of Daniel Kelly *in Support of Defendants' Motion for Summary Judgment.* (Attachments: # (1) Exhibit A - Bulletin of Proceedings, # (2) Exhibit B - Capital Times Excerpt, # (3) Exhibit C - Intervenor-Plaintiff Produced Document, # (4) Exhibit D - Mayer Deposition Transcript, # (5) Exhibit E - Grofman Reputtal Declaration, # (6) Exhibit F - Mayer Expert Report, # (7) Exhibit G - Mayer Exhibit 1025, # (8) Exhibit H - Gaddie Expert Report, # (9) Exhibit I - Gaddie Rebuttal Report, # (10) Exhibit J - Milwaukee Journal Excerpt)(Kelly, Daniel)

2:11-cv-00562-JPS-DPW-RMD Notice has been electronically mailed to:

Aaron H Kastens ahkastens@michaelbest.com, mlcrimmins@michaelbest.com

Brady C Williamson bwilliam@gklaw.com, agrote@gklaw.com, jschwartz@gklaw.com

Colleen E Fielkow cfielkow@reinhartlaw.com, kkempski@reinhartlaw.com

Daniel Kelly DKelly@reinhartlaw.com, aschneik@reinhartlaw.com

Daniel S Lenz dlenz@lawtoncates.com

Douglas M Poland dpoland@gklaw.com

Original filename:
Electronic document Stamp:
[STAMP dcecfStamp_ID=1001523647 [Date=2/10/2012] [FileNumber=1835536-3] [08319a8a53edd4a2c688a49226e37286bb654ce16105627b3c8641ba9a1e93135ca a09d6b784ac8ff5e165429f732fb090c8caf8effcf436501350a7e6930dfc]]
Document description: Exhibit D - Mayer Deposition Transcript
Original filename:
Electronic document Stamp:
[STAMP dcecfStamp_ID=1001523647 [Date=2/10/2012] [FileNumber=1835536-4] [19c161a737d3dda4e94cc5e053920ea7935c30c1a114378dd90754f3dc830711e6b 193a3f6b2ad4b2d935b53b7eba4e62da19d3af47d4cfe871299ff0b7b330f]]
Document description: Exhibit E - Grofman Reputtal Declaration
Original filename:
Electronic document Stamp:
[STAMP dcecfStamp_ID=1001523647 [Date=2/10/2012] [FileNumber=1835536-5] [76bdf6eb853fea7dc6d16498ab76cbb829bac50ebffdce26659506d7375746ca2df b513030d8c0eed72aaccd7149ad0011efa4cd1c28bba7bde3a4cab7d22f10]]
Document description: Exhibit F - Mayer Expert Report
Original filename:
Electronic document Stamp:
[STAMP dcecfStamp_ID=1001523647 [Date=2/10/2012] [FileNumber=1835536-6] [6e5b8b181031b989d0e565f22c0277672833d68ea83e8b67db849c4bb5c3aafb90c 52c9c1a53492fef49c1090e0ca0ad5556967c6eab285932938480e6d11f47]]
Document description: Exhibit G - Mayer Exhibit 1025
Original filename:
Electronic document Stamp:
[STAMP dcecfStamp_ID=1001523647 [Date=2/10/2012] [FileNumber=1835536-7] [2f5676f5286dbe1cf42db5add966bee8963d15569f55936674c0317fdced17af635 94b1f490556d28b071df8872c07d61786a906cf81d50b959609f134c84916]]
Document description: Exhibit H - Gaddie Expert Report
Original filename:
Electronic document Stamp:
[STAMP dcecfStamp_ID=1001523647 [Date=2/10/2012] [FileNumber=1835536-8] [1eb7879dcc81ec0af3f75a78c6cca513e5d2c9412f52a6ea5c68317e1d70fc22e9c 58de55b4bfbe048aaa1874f93ec514a3325e25824c1e4097d28e97c076a7a]]
Document description: Exhibit I - Gaddie Rebuttal Report
Original filename:
Electronic document Stamp:
[STAMP dcecfStamp_ID=1001523647 [Date=2/10/2012] [FileNumber=1835536-9] [9f7e94e2fee87e814d78b91722418c55acb47b54fad1d37b5a1169c872f6cc66c32 d9406365dfa3ec302cd6a16c3c5722af6318a5e27bfe13d7502a1c86d58c4]]
Document description: Exhibit J - Milwaukee Journal Excerpt
Original filename:
Electronic document Stamp:
[STAMP dcecfStamp_ID=1001523647 [Date=2/10/2012] [FileNumber=1835536-1 0] [9013c663cd231527a516935a7f7ab0ab44c4ffe1c9d69732054b2fbc2010677847 ecc4d5a9296b6e80c330c462c67e0b843abbfd230bca0b78b285b96a35b4bd]]