THE RISE OF PARTISANSHIP AND SUPER-COOPERATORS IN THE U.S. HOUSE OF REPRESENTATIVES

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.

OVERVIEW

- Motivation and Introduction

Andris, C., Lee, D., Hamilton, M. J., Martino, M., Gunning, C. E., & Selden, J. A. (2015). The rise of partisanship and super-cooperators in the US House of Representatives. *PloS one*, *10*(4), e0123507

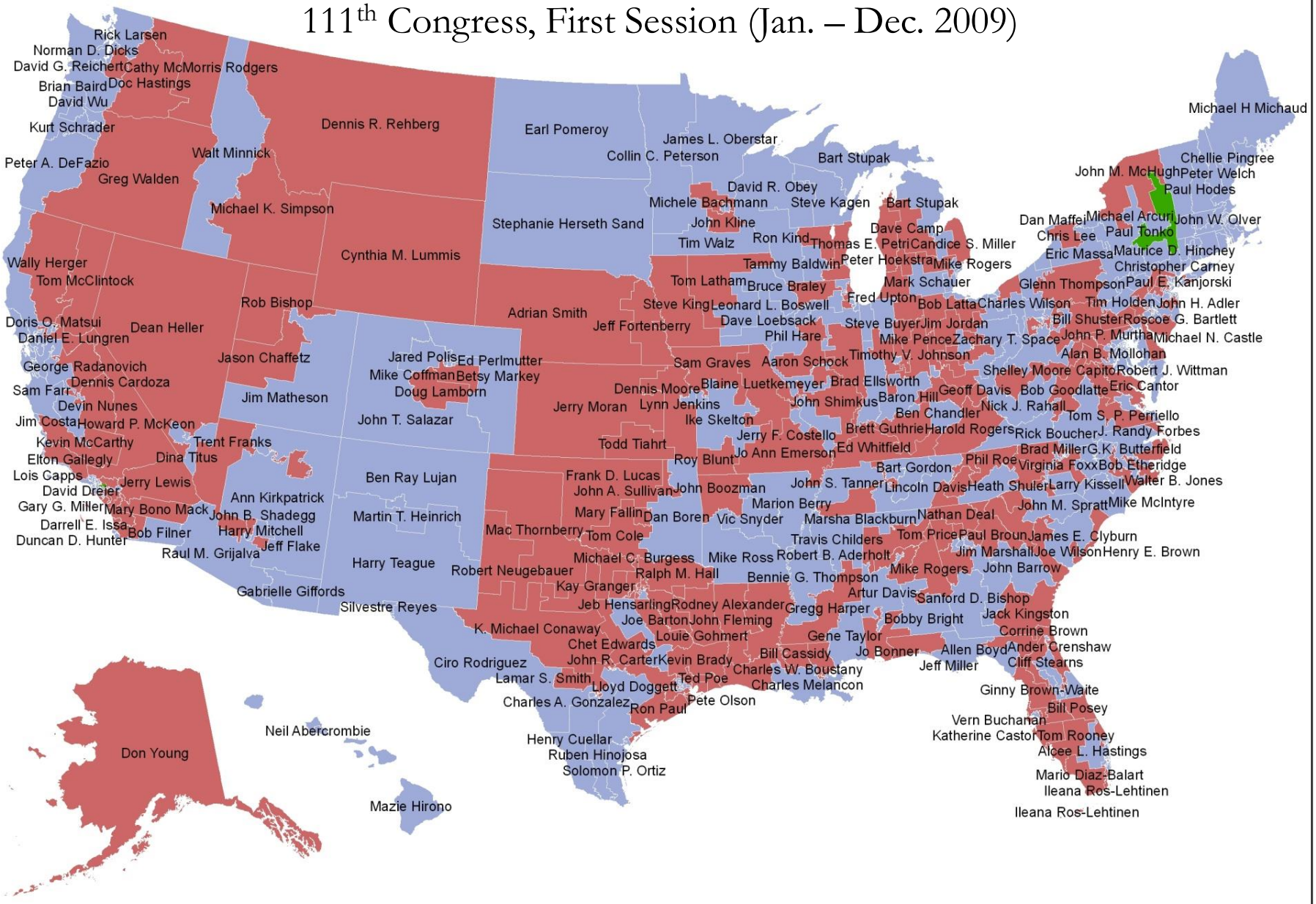
- Data and Processing
- [1] Do Cross-Party (CP) pairs agree as much as Same-Party (SP) pairs?
- [2] Who still cooperates despite partisanship?
- [3] How has today's situation affected Congressional productivity?
- Discussion

OPEN ENDED DISCUSSION

- What would we find if we performed this study in other countries?
- Would you want to see this re-done for today? Why?
- Is this is network analysis, a geography study, a political study or a visualization study?
- What data would you like to see among the representatives?
- What do you think will happen in the future?

U.S. House of Representatives Congressional Districts

111th Congress, First Session (Jan. – Dec. 2009)



PERSONAL MOTIVATION

- I was studying spatial social network analysis
  - *I was trying to find 'friendships' in this network.*
  - *I thought they would be geographic friendships.*

- So let's look at politics….We know Democrats and Republicans struggle to cooperate across party lines. (Results: fiscal, policy battles, government shutdown, inability to pass legislation)

REASONS FOR PARTISANSHIP

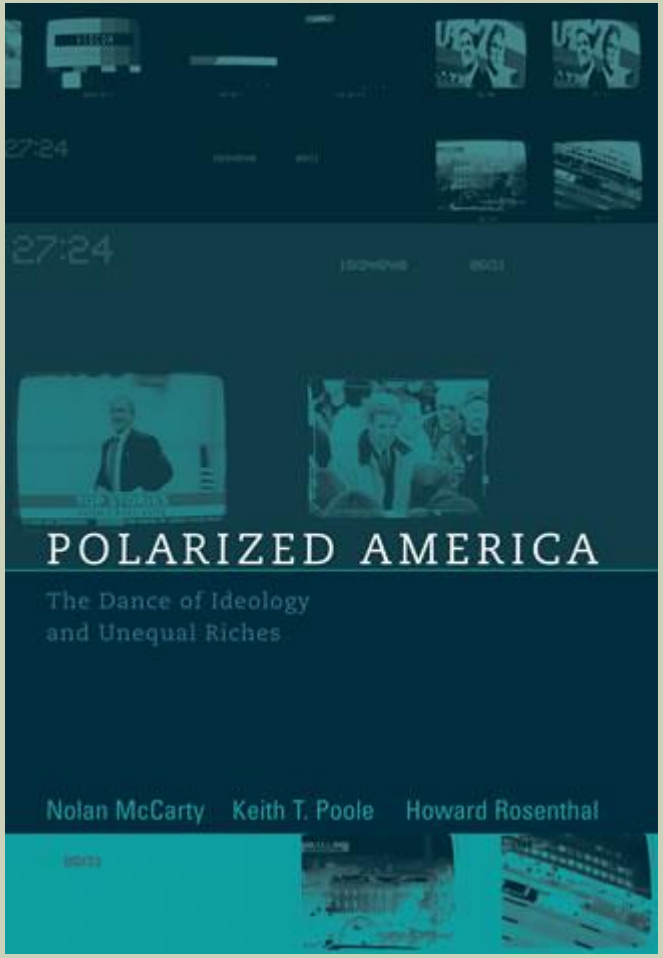
- **Wealth distribution of Americans**
  (McCarty N, Poole KT, Rosenthal H, 2006)
- **Boundary redistricting**
  (Carson J, Crespin M, Finocchiaro C, Rohde D, 2007)
- **Activist activity at primary elections**
  (Rosenstone SJ, Hansen JM 1993)
- **Changes in Congressional procedural rules**
  (Roberts J, Smith S, 2003)
- **Political realignment in the American South**
  (Theriault S 2006, 2008)
- **Rise of the 24-hour news cycle, new forms of media, and increasing political bias in reporting**
  (Iyengar S, Hahn KS, 2009)

Technology: telecommunications and travel.

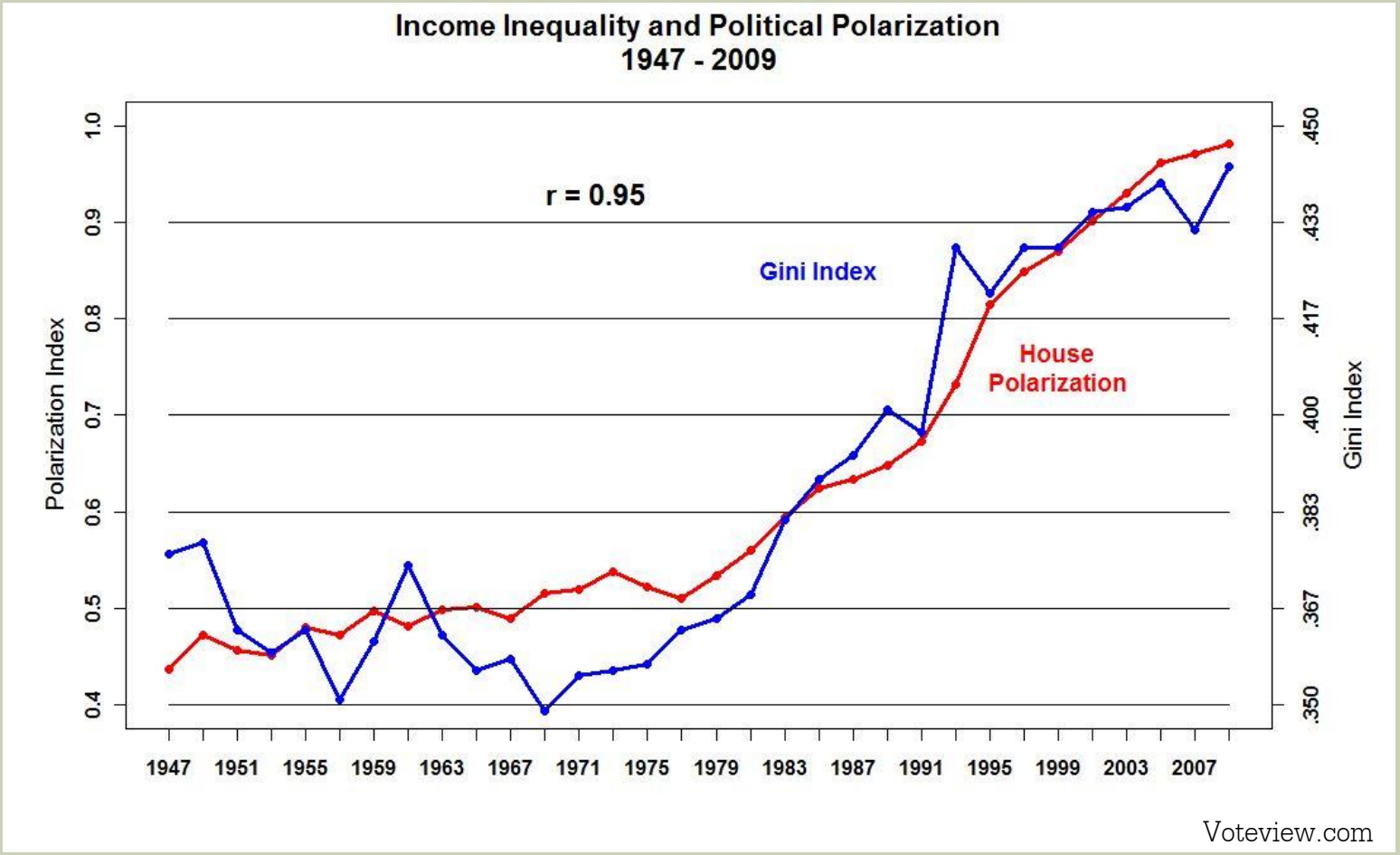
MOTIVATION

- But shouldn't a Democrat and Republican agree on *something*? (aging populations, natural resources, veterans' affairs, or regional concerns)
- Can't relationships form from social interactions? (sponsoring bills, interacting with one another, creating trust networks for communication, sharing ideas and one's own sense of ethics.)
- Does anyone do this? Shouldn't someone have something in common? Aren't there 'secret' 'friendships' in Congress?

VOTEVIEW: MCCARTY, POOLE, ROSENTHAL

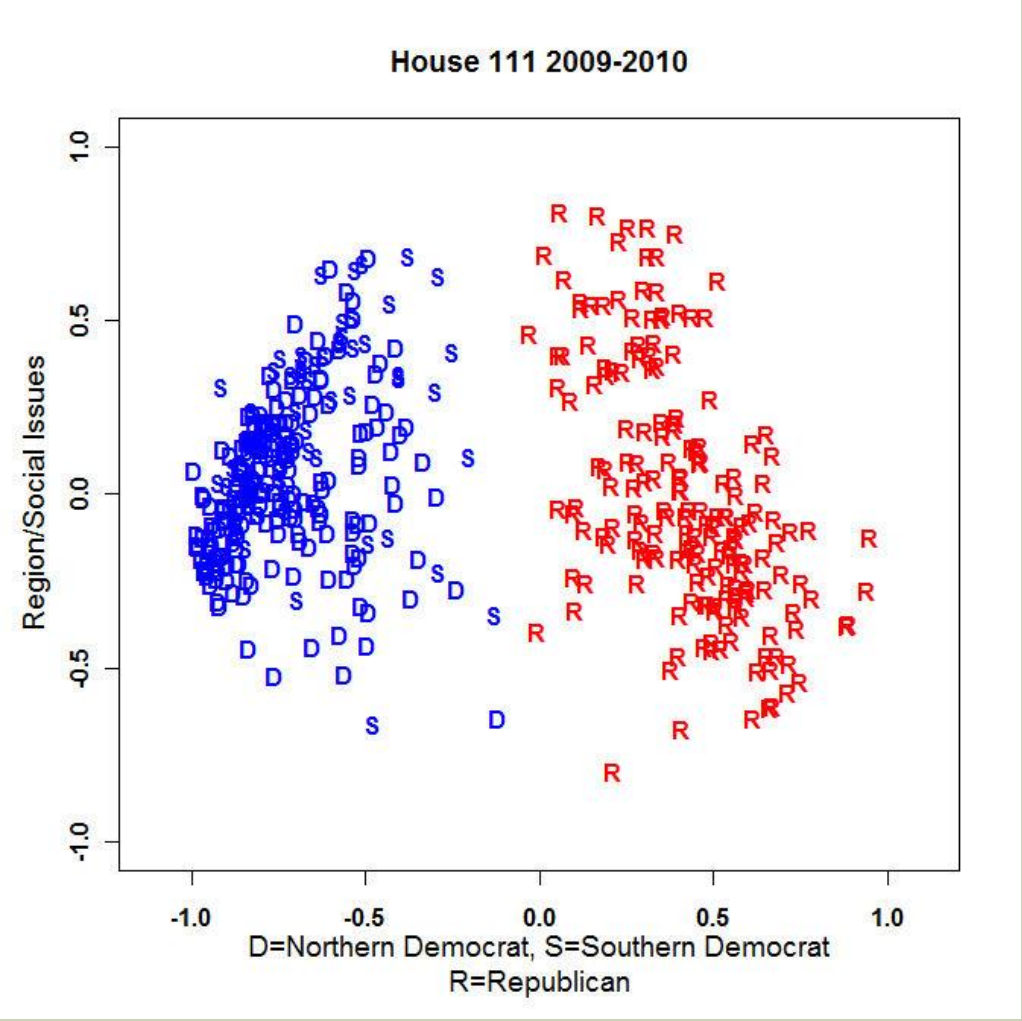


PREVAILING PARTISANSHIP METHODS



IDEOLOGICAL SCALE? (COORDINATES OF REPRESENTATIVES' IDEOLOGY)

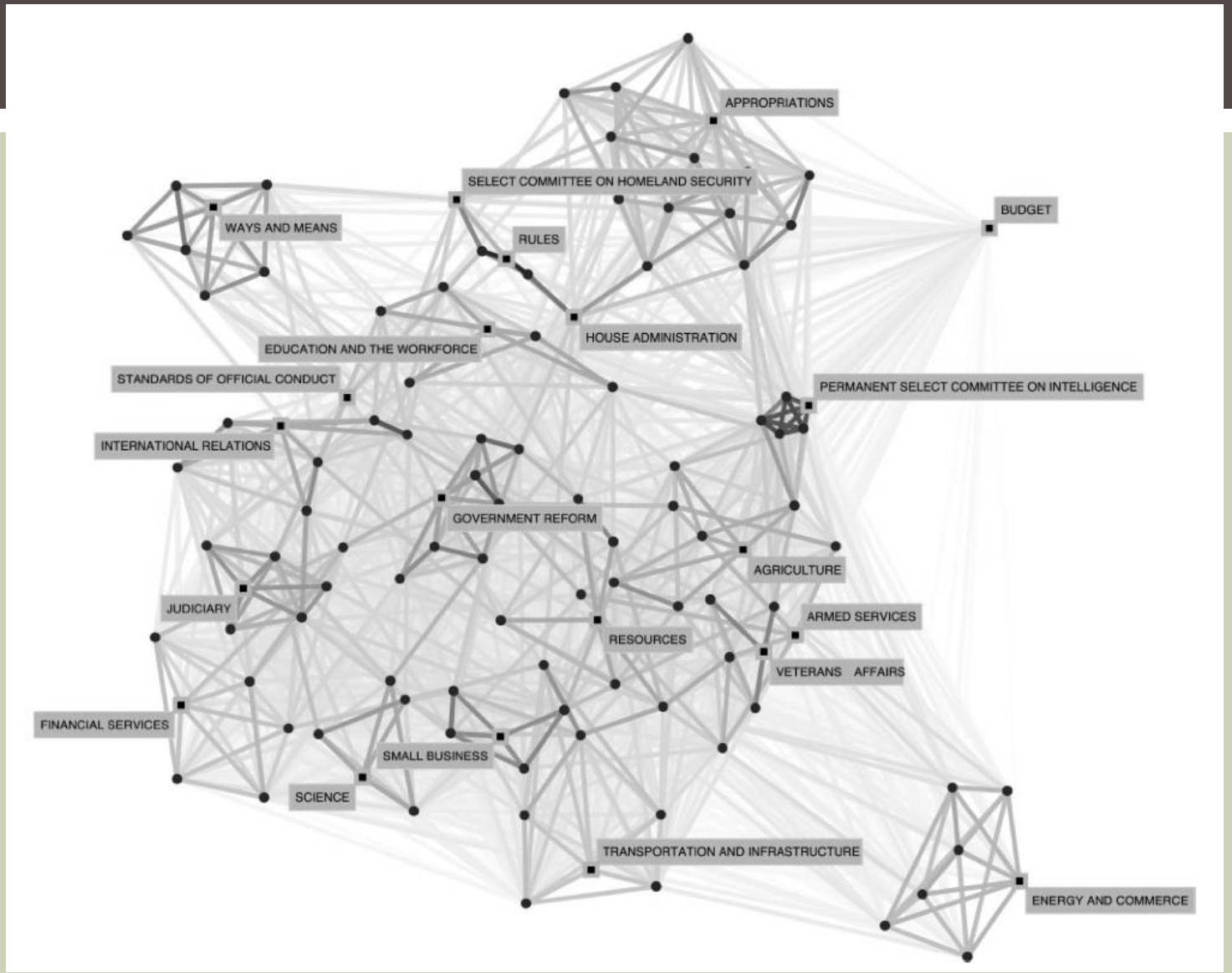
PREVAILING PARTISANSHIP METHODS: NOMINATE, AND DW NOMINATE (POOLE AND ROSENTHAL)



Nominal Three-Step Estimation.

Evolved from: KT Poole and H Rosenthal. (1985) 357-384.

NETWORK METHODS: NO INDEXES



M. A. PORTER, P. J. MUCHA, M. E. J. NEWMAN AND C. M. WARMBRAND, (2005).

DATA PROCESSING

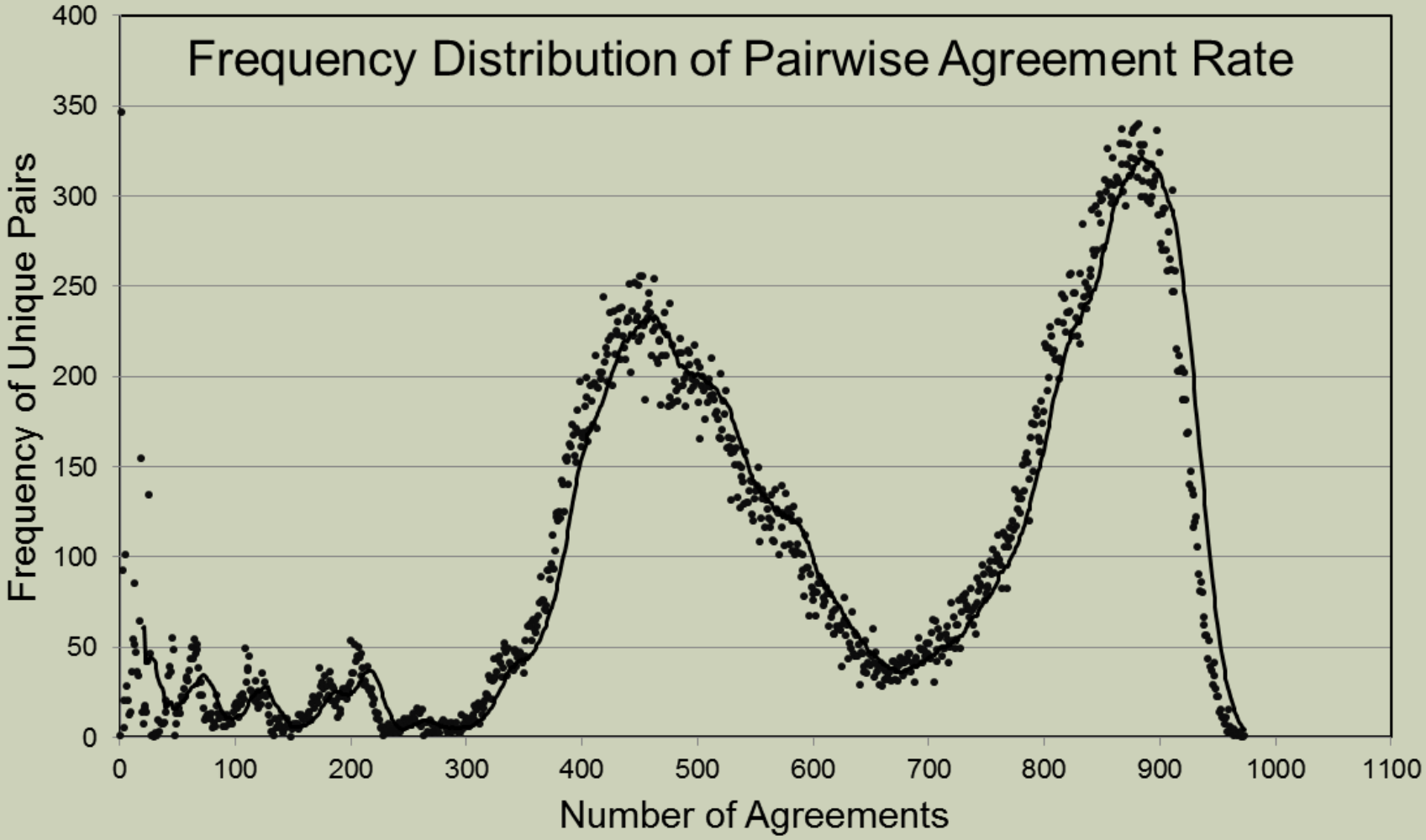
- U.S. House of Representatives Roll call vote data: 1949 (81st Congress) to 2012 (112nd Congress). Source: U.S. Office of the Clerk of the U.S. House of Representatives.
  - Lets take a look: https://www.congress.gov/roll-call-votes

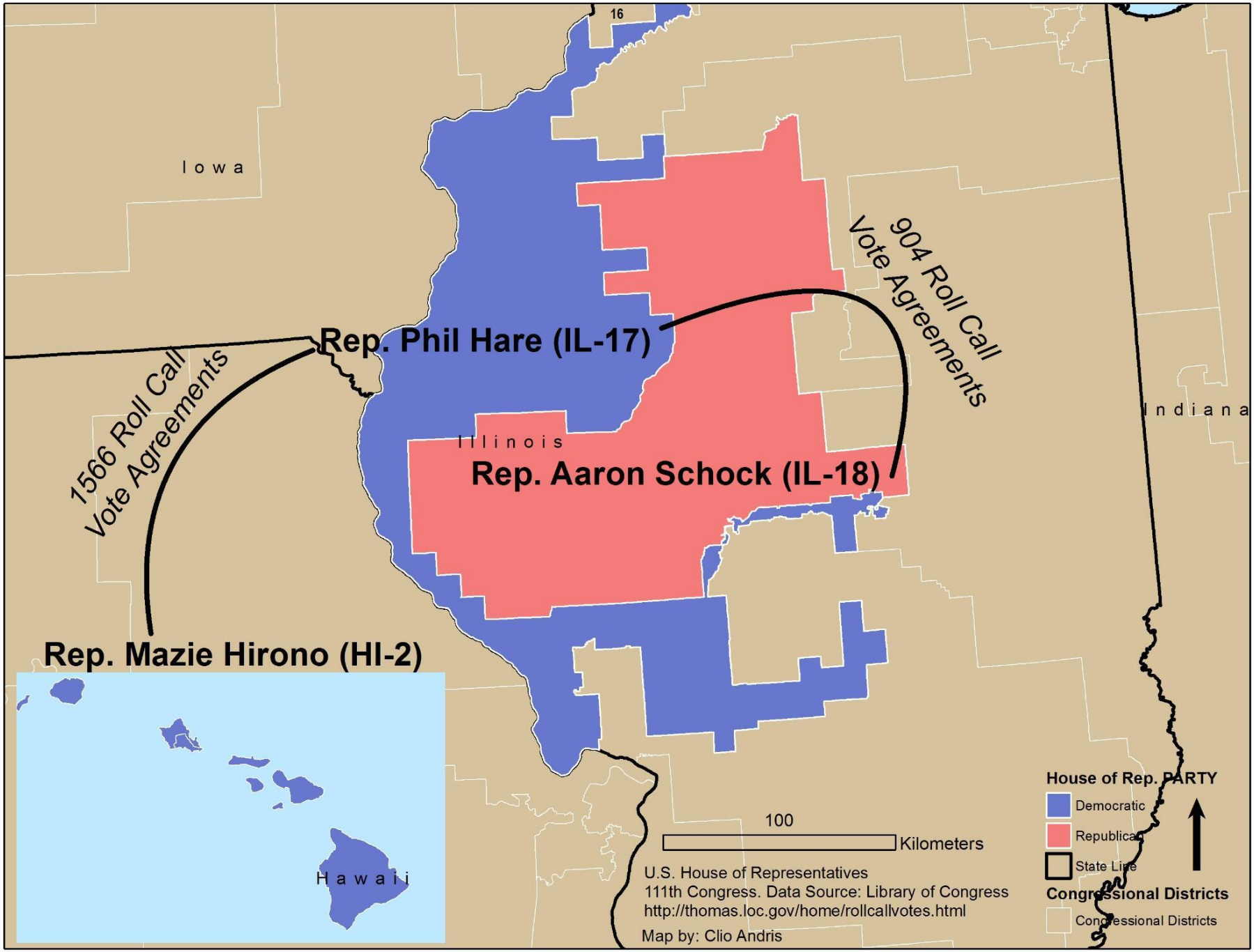
    API: https://projects.propublica.org/api-docs/congress-api/

- For each Congress, for all $B(n,2)$ possible pairs of representatives, we tally an agreement between pair (i,j) when a pair votes either 'yay'/'yay' or 'nay'/'nay'. This forms a weighted, undirected graph.

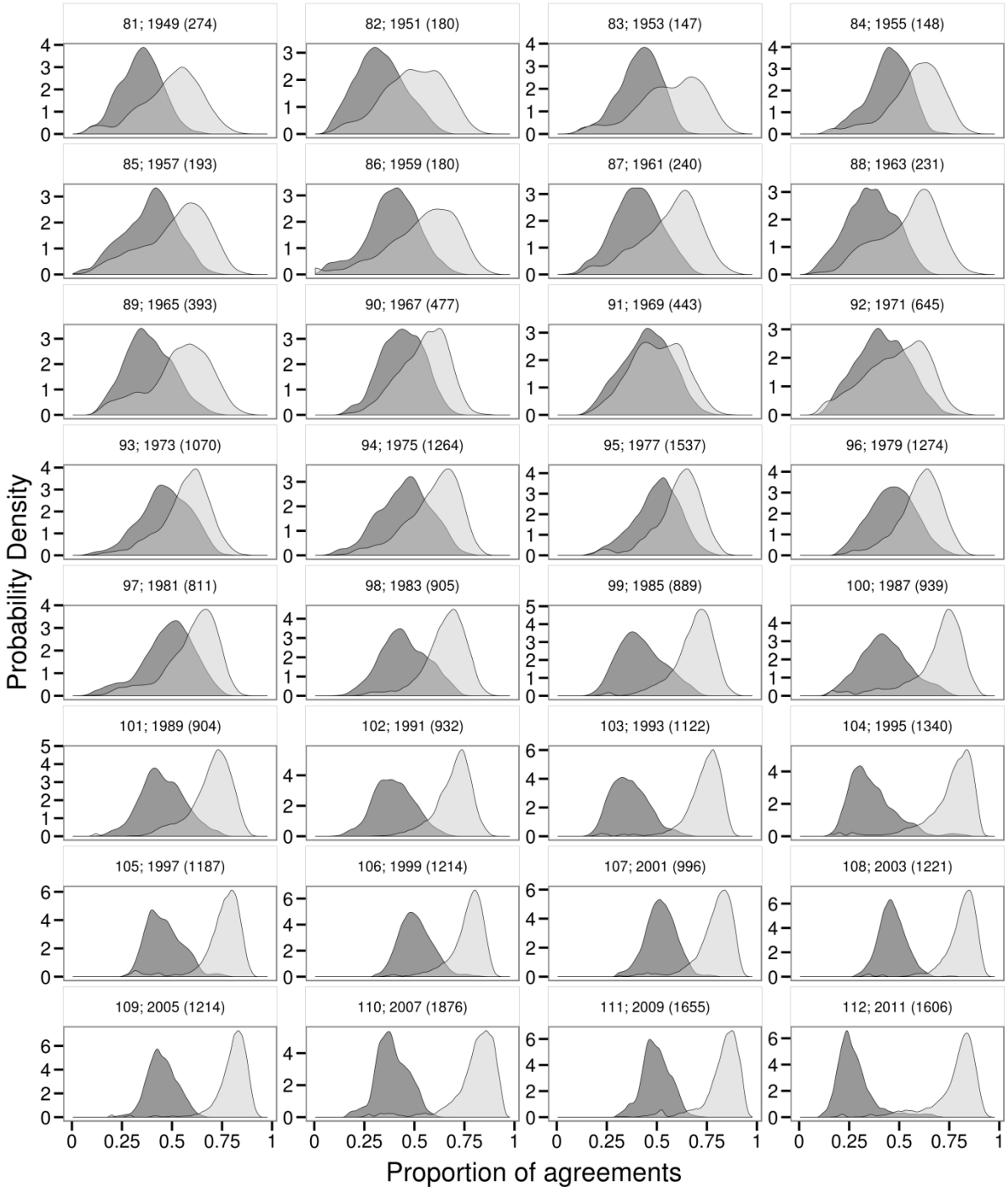
- Each pair (i,j) is classified as either "same-party" (SP) if they are members of the same political party, or "cross-party" (CP) if one representative is Republican and the other Democrat.

DEGREE DISTRIBUTION (AHA MOMENT!)




16
Iowa
Indiana
Illinois
Rep. Phil Hare (IL-17)
Rep. Aaron Schock (IL-18)
Rep. Mazie Hirono (HI-2)
1566 Roll Call Vote Agreements
904 Roll Call Vote Agreements
Hawaii
100
Kilometers
U.S. House of Representatives
111th Congress. Data Source: Library of Congress
http://thomas.loc.gov/home/rollcallvotes.html
Map by: Clio Andris
House of Rep. PARTY
Democratic
Republican
State Line
Congressional Districts
Congressional Districts

CP VS. SP AGREEMENT RATES



CP & SP PAIR AGREEMENT RATES

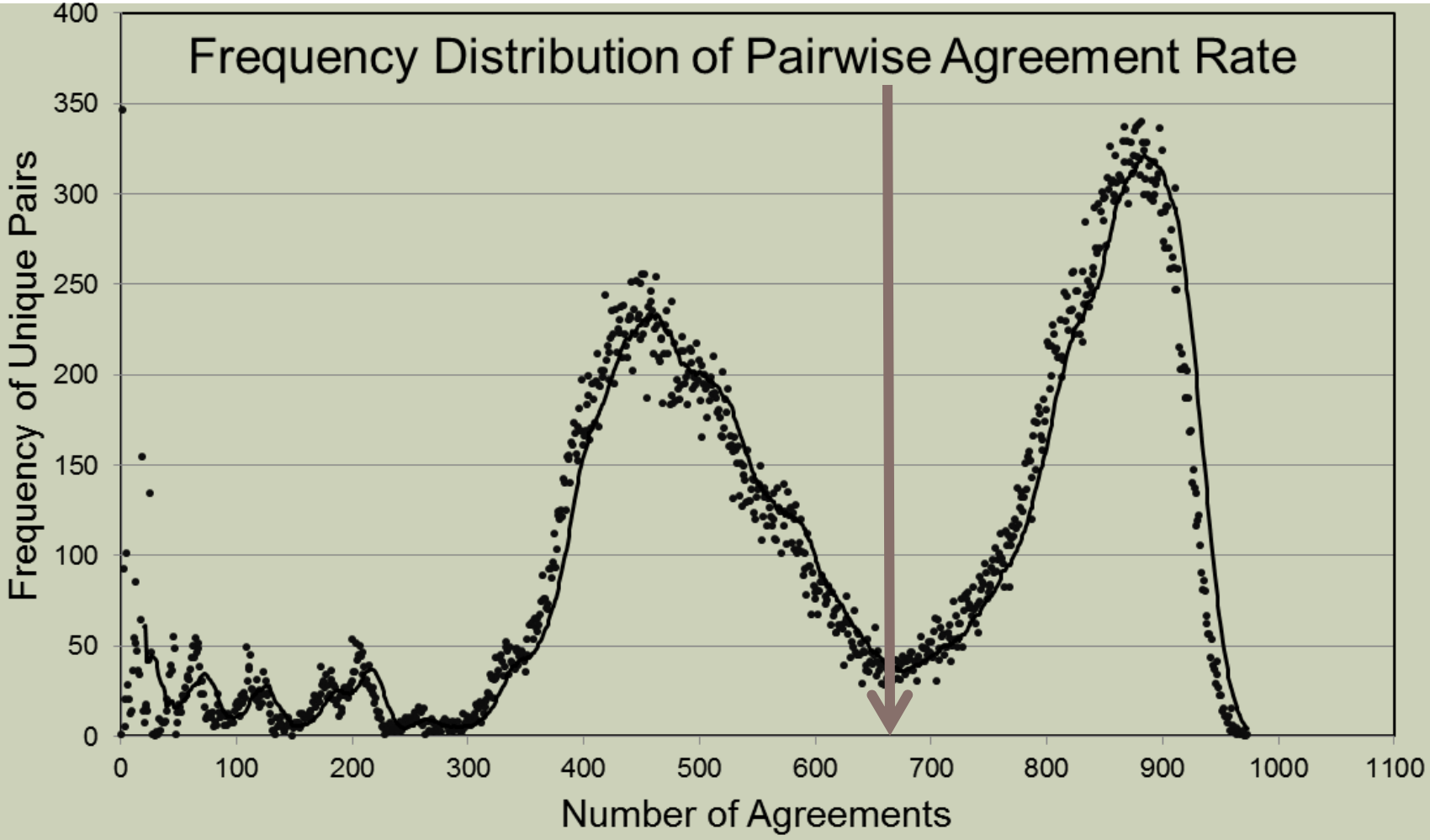
Number of Representatives, Starting Year, and Number of Votes for Each Congress			Average Agreements for Different Types of Pairs		
Congress	Starting Year	Total Votes	Cross-Party Pairs	D-D Pair	R-R Pair
81	1949	274	90.7	131.0	130.6
82	1951	180	56.6	80.9	92.3
83	1953	147	59.4	72.6	91.4
84	1955	148	64.6	87.9	86.1
85	1957	193	75.9	101.4	102.5
86	1959	180	69.9	101.3	103.7
87	1961	240	93.4	129.0	135.4
88	1963	231	85.0	123.6	129.4
89	1965	393	**155**	**202**	**216**
90	1967	477	**211**	**243**	**274**
91	1969	443	**192**	**214**	**215**
92	1971	645	**280**	**313**	**336**
93	1973	1070	502.1	589.7	590.5
94	1975	1264	583.5	714.1	732.2
95	1977	1537	766.4	872.3	934.0
96	1979	1274	581.1	717.1	769.7
97	1981	811	395.3	472.2	495.1
98	1983	905	411.3	578.0	573.2
99	1985	889	375.0	593.3	566.3
100	1987	939	409.2	652.3	609.1
101	1989	904	403.3	609.2	568.2
102	1991	932	369.3	629.3	593.5
103	1993	1122	407.1	792.4	794.7
104	1995	1340	481.2	862.2	1078.1
105	1997	1187	516.6	813.8	898.3
106	1999	1214	605.3	903.0	930.6
107	2001	996	499.4	748.6	782.3
108	2003	1221	554.0	942.1	992.7
109	2005	1214	533.3	956.0	948.0
110	2007	1876	**695**	**1487**	**1376**
111	2009	1655	**799**	**1336**	**1276**
112	2011	1606	**425**	**1137**	**1297**

FINDING 1: CP PAIRS HAVE LOWER AGREEMENT RATES TODAY

- In 1970, an average CP pair agreed with one another at the rate of 90% of an SP pair.
- In today's congress, an CP pair will agree at 35% of SP pair rates.

Congress	Starting Year	Total Votes	Cross-Party Pairs	D-D Pair	R-R Pair
89	1965	393	155	202	216
90	1967	477	211	243	274
91	1969	443	192	214	215
92	1971	645	280	313	336
110	2007	1876	695	1487	1376
111	2009	1655	799	1336	1276
112	2011	1606	425	1137	1297

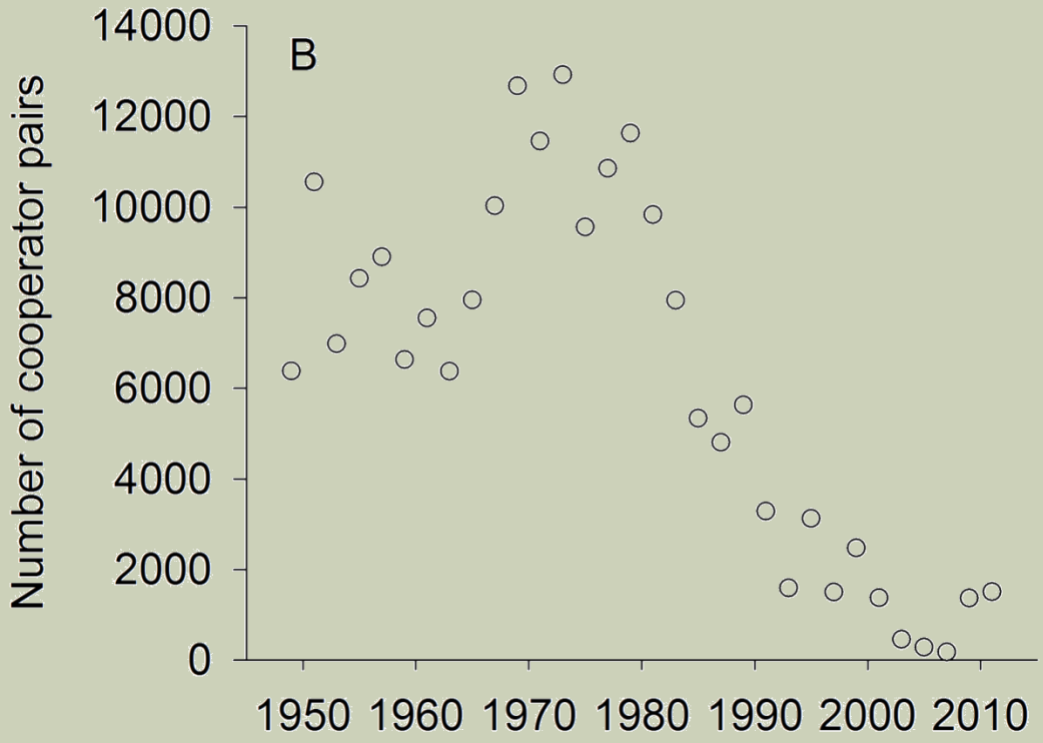
DEFINING A THRESHOLD



COOPERATOR PAIRS

Number of Representatives, Starting Year, and Number of Votes for Each Congress			Cross-Party (CP) Pair Behavior based on Threshold Value (where Probability Distributions Meet)	
Congress	Starting Year	Total Votes	Cross-Party Pairs Above the Threshold (Cooperators)	Probability of a CP pair Appearing Above the Threshold
81	1949	274	6383	0.067
82	1951	180	10552	0.106
83	1953	147	6985	0.072
84	1955	148	8427	0.088
85	1957	193	8903	0.091
86	1959	180	6633	0.073
87	1961	240	7548	0.079
88	1963	231	6376	0.067
89	1965	393	7949	0.093
90	1967	477	10029	0.106
91	1969	443	**12672**	**0.127**
92	1971	645	**11458**	**0.119**
93	1973	1070	**12921**	**0.134**
94	1975	1264	**9560**	**0.110**
95	1977	1537	**10850**	**0.127**
96	1979	1274	**11631**	**0.130**
97	1981	811	9830	0.102
98	1983	905	7939	0.086
99	1985	889	5337	0.057
100	1987	939	4807	0.051
101	1989	904	5630	0.060
102	1991	932	3283	0.036
103	1993	1122	1591	0.017
104	1995	1340	3122	0.033
105	1997	1187	1501	0.015
106	1999	1214	2477	0.026
107	2001	996	1374	0.014
108	2003	1221	**455**	**0.005**
109	2005	1214	**280**	**0.003**
110	2007	1876	**181**	**0.002**
111	2009	1655	1371	0.014
112	2011	1606	1508	0.015

FINDING 2: CP PAIRS ARE RARELY ABOVE THE THRESHOLD (THOSE THAT ARE, CALLED 'COOPERATORS')



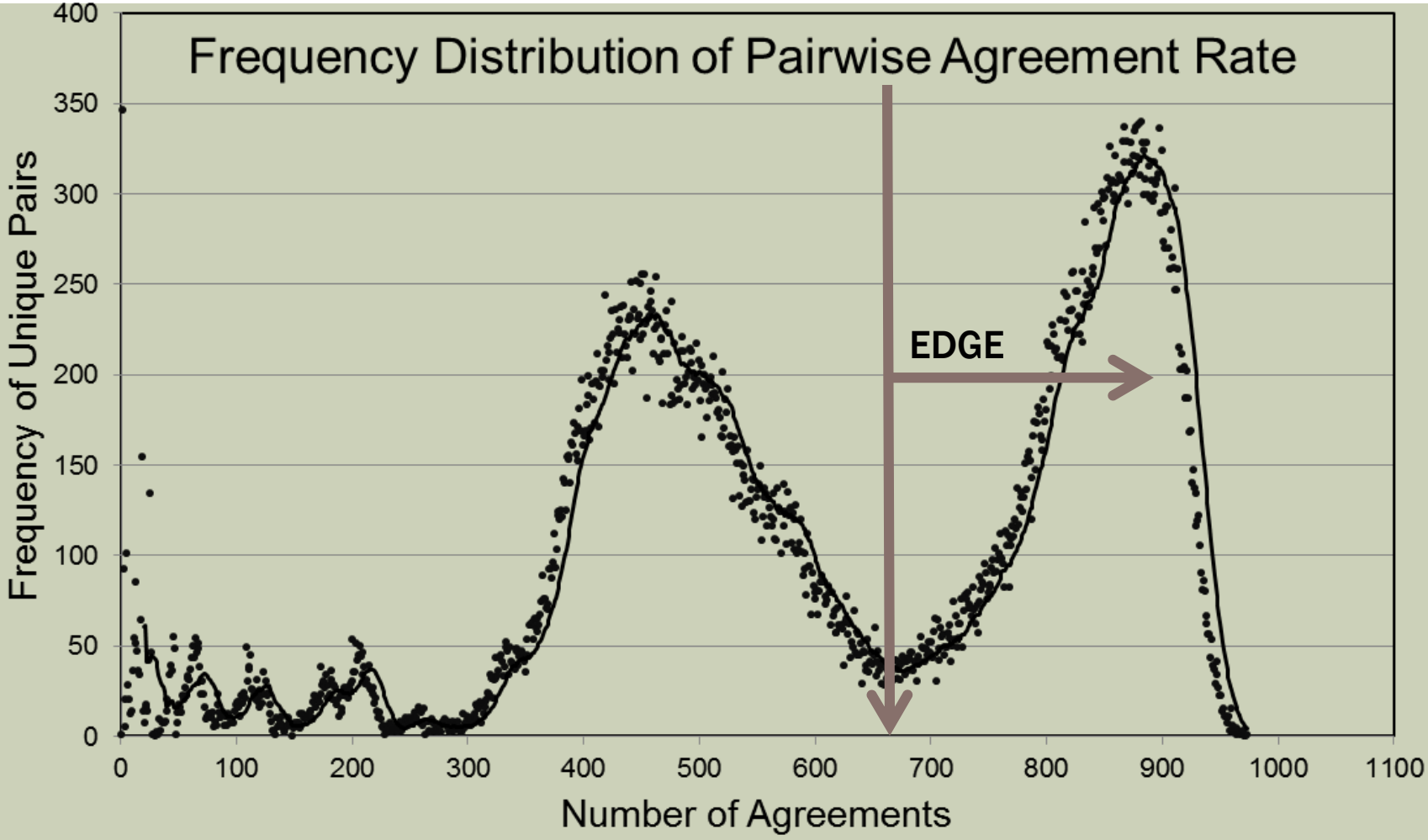
- In 1968-1980, CP pairs agreed more often than a typical SP pair around 12-13% of the time (peak: 12,921 CP pairs).

Peak: 1973-1975, Vietnam War Ends, Height of Watergate Scandal.

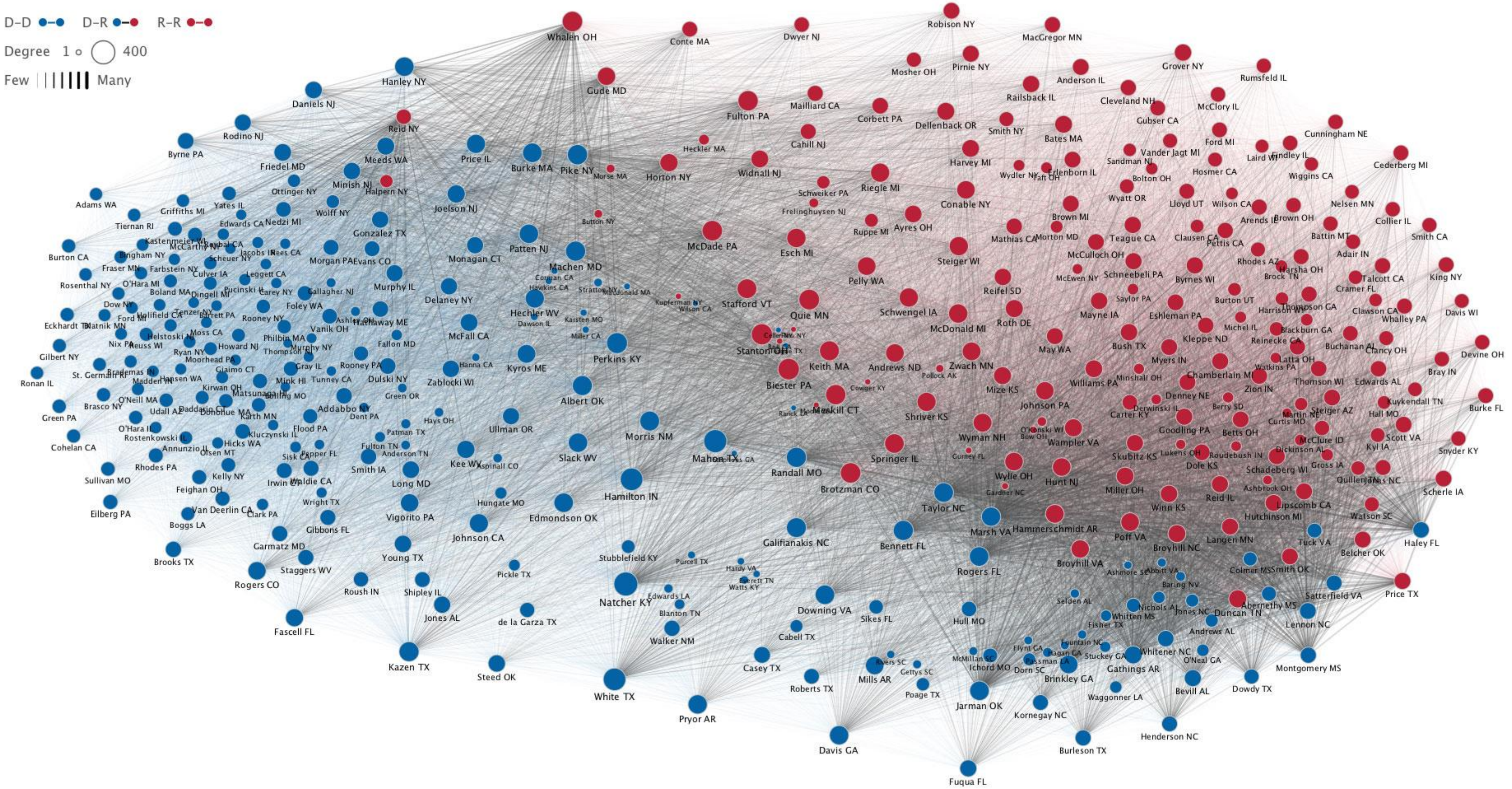
- From 2000-2012, fewer than 2% of CP pairs would agree more often than a typical SP pair—at a low of 00.2% (trough: 181 CP pairs).

Trough: 2007-2009: Final years of the GW Bush Administration, Economic Recession.

VISUALIZING THE NETWORK



Year: 1967



D–D
D–R
R–R
Degree 1
400
Few
Many
Whalen OH
Conte MA
Dwyer NJ
Robison NY
MacGregor MN
Hanley NY
Gude MD
Mosher OH
Pirnie NY
Grover NY
Rumsfeld IL
Anderson IL
Daniels NJ
Fulton PA
Mailliard CA
Railsback IL
Cleveland NH
McClory IL
Rodino NJ
Reid NY
Corbett PA
Dellenback OR
Smith NY
Gubser CA
Cunningham NE
Byrne PA
Friedel MD
Meeds WA
Price IL
Burke MA
Pike NY
Horton NY
Widnall NJ
Cahill NJ
Bates MA
Harvey MI
Ford MI
Vander Jagt MI
Cederberg MI
Minish NJ
Halpern NY
Riegle MI
Hosmer CA
Wiggins CA
Adams WA
Griffiths MI
Joelson NJ
Conable NY
Wyatt OR
Lloyd UT
Nelsen MN
Gonzalez TX
Brown MI
Collier IL
Tiernan RI
Patten NJ
McDade PA
Esch MI
Ayres OH
Mathias CA
Teague CA
Clausen CA
Battin MT
Smith CA
Burton CA
Monagan CT
Machen MD
Steiger WI
McCulloch OH
Pettis CA
Adair IN
Evans CO
Morgan PA
Pelly WA
Schneebeli PA
Rhodes AZ
Harsha OH
King NY
Murphy IL
Reifel SD
Byrnes WI
Talcott CA
Rosenthal NY
Stafford VT
Quie MN
Schwengel IA
Cramer FL
Delaney NY
Hechler WV
Roth DE
Mayne IA
Eshleman PA
Davis WI
Eckhardt TX
Hathaway ME
McDonald MI
Thompson GA
Clawson CA
Whalley PA
McFall CA
May WA
Kleppe ND
Stanton OH
Bush TX
Reinecke CA
Devine OH
Gilbert NY
Perkins KY
Keith MA
Andrews ND
Zwach MN
Buchanan AL
Clancy OH
Kyros ME
Myers IN
Ronan IL
Dulski NY
Zablocki WI
Biester PA
Williams PA
Chamberlain MI
Latta OH
Thomson WI
Edwards AL
Bray IN
Albert OK
Mize KS
Zion IN
Denney NE
Green PA
Johnson PA
Kuykendall TN
Brasco NY
Addabbo NY
Meskill CT
Shriver KS
Carter KY
Hall MO
Burke FL
Ullman OR
Goodling PA
Steiger AZ
Cohelan CA
Flood PA
Morris NM
Wyman NH
Betts OH
Wampler VA
McClure ID
Scott VA
Slack WV
Mahon TX
Skubitz KS
Dole KS
Dickinson AL
Kyl IA
Snyder KY
Rhodes PA
Smith IA
Kee WV
Randall MO
Springer IL
Roudebush IN
Gross IA
Sullivan MO
Long MD
Hamilton IN
Brotzman CO
Wylie OH
Hunt NJ
Schadeberg WI
Quillen TN
Jonas NC
Feighan OH
Miller OH
Scherle IA
Eilberg PA
Vigorito PA
Edmondson OK
Taylor NC
Winn KS
Reid IL
Lipscomb CA
Watson SC
Gibbons FL
Johnson CA
Galifianakis NC
Bennett FL
Marsh VA
Hammerschmidt AR
Poff VA
Hutchinson MI
Boggs LA
Garmatz MD
Broyhill NC
Langen MN
Tuck VA
Haley FL
Brooks TX
Young TX
Belcher OK
Staggers WV
Broyhill VA
Rogers FL
Smith OK
Rogers CO
Roush IN
Shipley IL
Natcher KY
Satterfield VA
Price TX
Downing VA
Abernethy MS
Duncan TN
Jones AL
Sikes FL
Hull MO
Lennon NC
de la Garza TX
Fascell FL
Walker NM
Cabell TX
Andrews AL
Gathings AR
Whitener NC
Casey TX
Ichord MO
Brinkley GA
Kazen TX
Steed OK
Montgomery MS
Mills AR
Roberts TX
Bevill AL
Dowdy TX
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Poage TX
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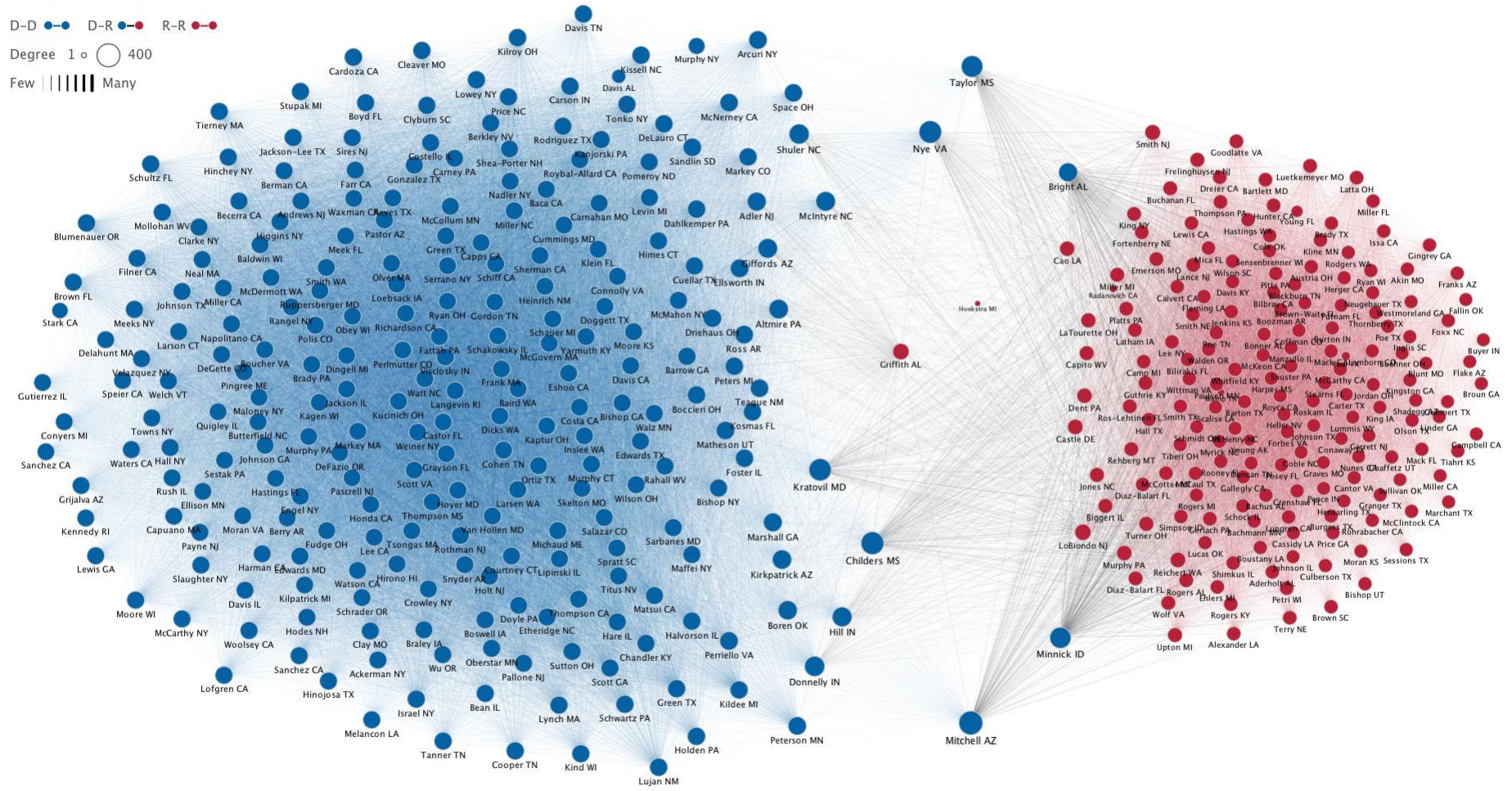
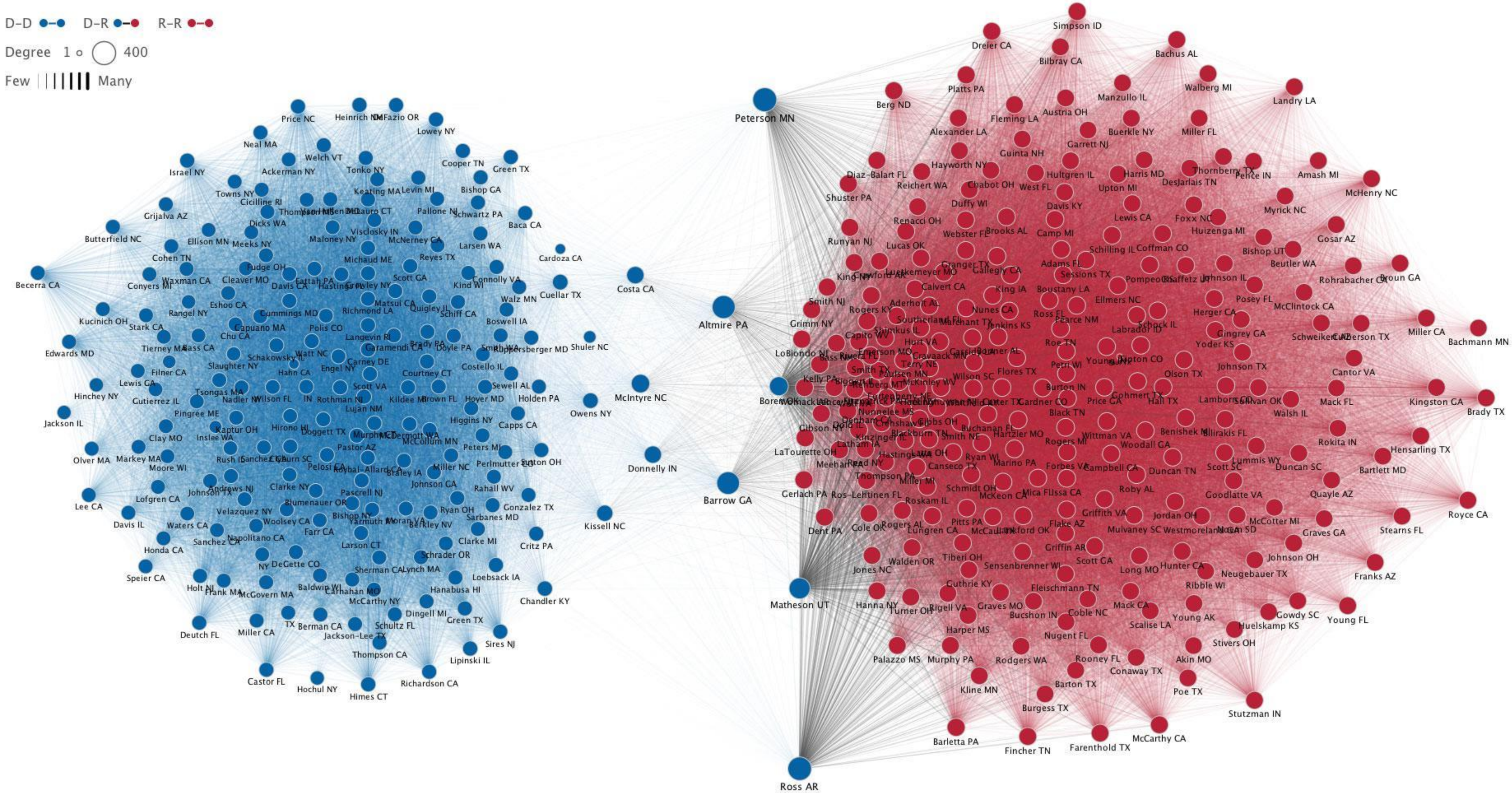
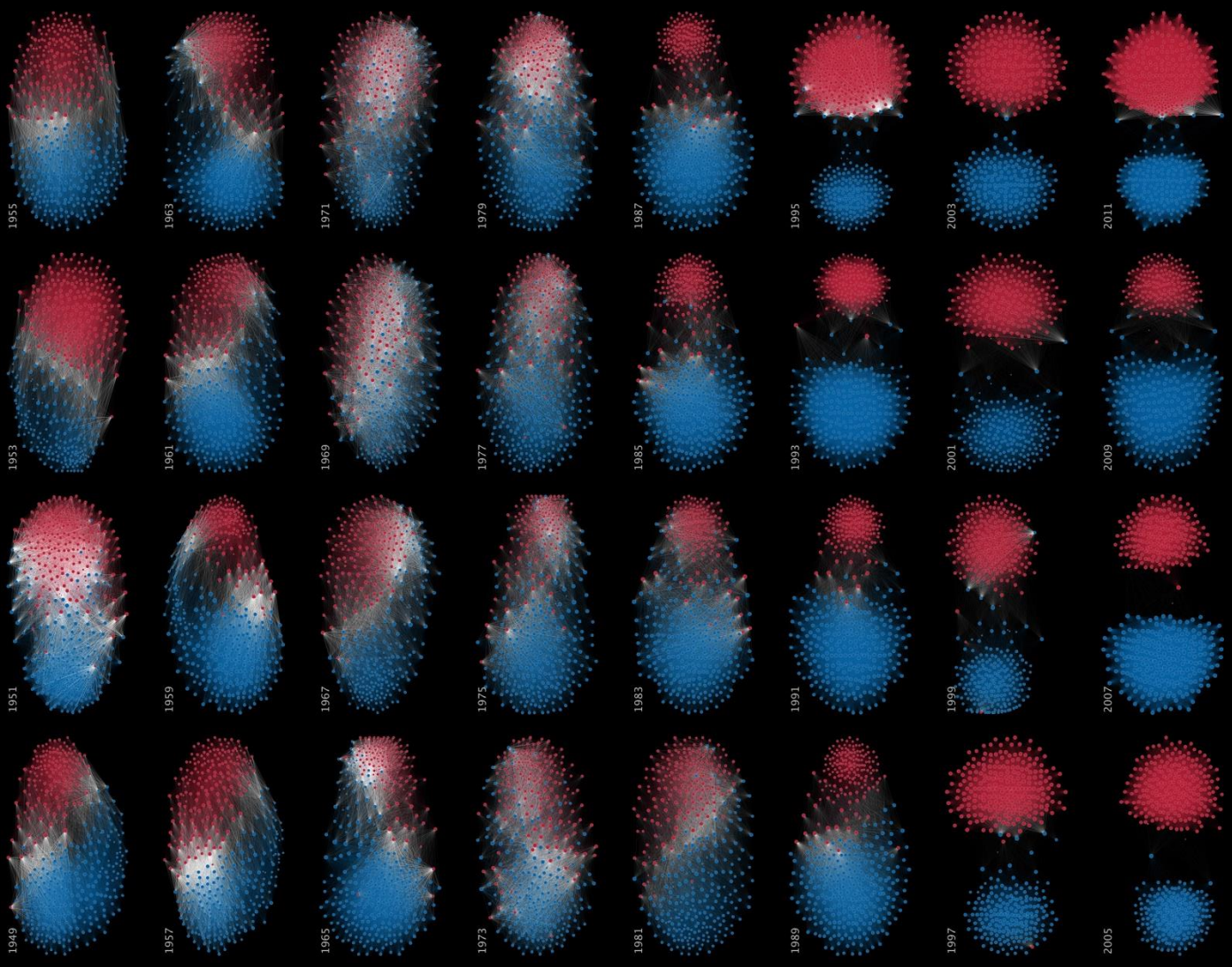
Waggonner LA
Pryor AR
Henderson NC
Davis GA
Burleson TX
Fuqua FL


Year: 2009
D-D
D-R
R-R
Degree 1
400
Few
Many
Davis TN
Kilroy OH
Cardoza CA
Cleaver MO
Murphy NY
Arcuri NY
Kissell NC
Davis AL
Lowey NY
Carson IN
Stupak MI
Boyd FL
Clyburn SC
Price NC
Tonko NY
McNerney CA
Space OH
Tierney MA
Berkley NV
Rodriguez TX
DeLauro CT
Jackson-Lee TX
Sires NJ
Costello IL
Kanjorski PA
Shuler NC
Schultz FL
Hinchey NY
Shea-Porter NH
Sandlin SD
Markey CO
Berman CA
Carney PA
Farr CA
Gonzalez TX
Roybal-Allard CA
Pomeroy ND
Nadler NY
Becerra CA
Andrews NJ
Waxman CA
Reyes TX
Baca CA
Carnahan MO
Levin MI
Adler NJ
McIntyre NC
Mollohan WV
McCollum MN
Miller NC
Dahlkemper PA
Blumenauer OR
Clarke NY
Higgins NY
Pastor AZ
Meek FL
Cummings MD
Himes CT
Baldwin WI
Green TX
Capps CA
Giffords AZ
Filner CA
Neal MA
Olver MA
Serrano NY
Schiff CA
Sherman CA
Klein FL
Cuellar TX
Ellsworth IN
Brown FL
Smith WA
McDermott WA
Loebsack IA
Connolly VA
Johnson TX
Miller CA
Ruppersberger MD
Heinrich NM
Stark CA
Meeks NY
Rangel NY
Ryan OH
Gordon TN
Doggett TX
McMahon NY
Altmire PA
Obey WI
Richardson CA
Schauer MI
Driehaus OH
Larson CT
Napolitano CA
Polis CO
Fattah PA
Schakowsky IL
Moore KS
Ross AR
Delahunt MA
Boucher VA
Perlmutter CO
McGovern MA
Yarmuth KY
DeGette CO
Dingell MI
Visclosky IN
Barrow GA
Velazquez NY
Brady PA
Frank MA
Peters MI
Pingree ME
Eshoo CA
Davis CA
Gutierrez IL
Speier CA
Welch VT
Watt NC
Jackson IL
Baird WA
Teague NM
Maloney NY
Kagen WI
Langevin RI
Boccieri OH
Quigley IL
Kucinich OH
Bishop GA
Kosmas FL
Conyers MI
Towns NY
Dicks WA
Costa CA
Walz MN
Butterfield NC
Castor FL
Kaptur OH
Matheson UT
Sanchez CA
Waters CA
Hall NY
Murphy PA
Markey MA
Weiner NY
Inslee WA
Edwards TX
Johnson GA
DeFazio OR
Cohen TN
Foster IL
Sestak PA
Grayson FL
Ortiz TX
Murphy CT
Rahall WV
Kratovil MD
Rush IL
Scott VA
Hastings FL
Pascrell NJ
Wilson OH
Bishop NY
Grijalva AZ
Ellison MN
Hoyer MD
Larsen WA
Skelton MO
Engel NY
Honda CA
Thompson MS
Kennedy RI
Capuano MA
Moran VA
Berry AR
Van Hollen MD
Salazar CO
Marshall GA
Payne NJ
Fudge OH
Tsongas MA
Michaud ME
Sarbanes MD
Childers MS
Lee CA
Rothman NJ
Lewis GA
Harman CA
Edwards MD
Spratt SC
Maffei NY
Kirkpatrick AZ
Slaughter NY
Hirono HI
Lipinski IL
Courtney CT
Snyder AR
Davis IL
Watson CA
Holt NJ
Titus NV
Kilpatrick MI
Crowley NY
Moore WI
Schrader OR
Matsui CA
Boren OK
Hill IN
McCarthy NY
Hodes NH
Doyle PA
Thompson CA
Etheridge NC
Halvorson IL
Woolsey CA
Clay MO
Boswell IA
Braley IA
Hare IL
Perriello VA
Sanchez CA
Oberstar MN
Chandler KY
Wu OR
Donnelly IN
Ackerman NY
Sutton OH
Pallone NJ
Lofgren CA
Scott GA
Hinojosa TX
Green TX
Kildee MI
Israel NY
Bean IL
Lynch MA
Schwartz PA
Melancon LA
Peterson MN
Tanner TN
Holden PA
Cooper TN
Kind WI
Lujan NM
Taylor MS
Nye VA
Griffith AL
Hoekstra MI
Bright AL
Cao LA
Minnick ID
Mitchell AZ
Smith NJ
Goodlatte VA
Frelinghuysen NJ
Luetkemeyer MO
Dreier CA
Bartlett MD
Latta OH
Buchanan FL
Thompson PA
Hunter CA
Young FL
Miller FL
King NY
Lewis CA
Hastings WA
Brady TX
Fortenberry NE
Cole OK
Kline MN
Issa CA
Gingrey GA
Mica FL
Sensenbrenner WI
Rodgers WA
Emerson MO
Lance NJ
Wilson SC
Austria OH
Ryan WI
Akin MO
Franks AZ
Miller MI
Radanovich CA
Davis KY
Pitts PA
Herger CA
Calvert CA
Blackburn TN
Fleming LA
Bilbray CA
Neugebauer TX
Fallin OK
Platts PA
Jenkins KS
Boozman AR
Brown-Waite FL
Westmoreland GA
LaTourette OH
Smith NE
Putnam FL
Thornberry TX
Foxx NC
Latham IA
Ros-Lehtinen FL
Coffman CO
Burton IN
Poe TX
Inglis SC
Buyer IN
Capito WV
Lee NY
Walden OR
Manzullo IL
McKeon CA
Camp MI
Bilirakis FL
Whitfield KY
Shuster PA
Blunt MO
Flake AZ
Guthrie KY
Wittman VA
Harper MS
Stearns FL
Jordan OH
Kingston GA
Broun GA
Dent PA
Barton TX
Royce CA
Roskam IL
Carter TX
Shadegg AZ
Gohmert TX
Castle DE
Hall TX
Heller NV
Lummis WY
Olson TX
Linder GA
Schmidt OH
Henry NC
Forbes VA
Johnson TX
Campbell CA
Myrick NC
Young AK
Conaway TX
Gerrett NJ
Rehberg MT
Tiberi OH
Goode NC
Chaffetz UT
Mack FL
Tiahrt KS
Jones NC
Rooney FL
Bilbray FL
Graves MO
Nunes CA
Diaz-Balart FL
McCotter MI
Gallegly CA
Cantor VA
Sullivan OK
Miller CA
Rogers MI
Bachus AL
Granger TX
Biggert IL
Schock IL
Herseth SD
Marchant TX
Simpson ID
Burgess TX
McClintock CA
Turner OH
Bachmann MN
Rohrabacher CA
LoBiondo NJ
Cassidy LA
Price GA
Lucas OK
Boustany LA
Murphy PA
Reichert WA
Shimkus IL
Johnson IL
Moran KS
Sessions TX
Culberson TX
Diaz-Balart FL
Rogers AL
Ehlers MI
Aderholt AL
Petri WI
Bishop UT
Wolf VA
Rogers KY
Brown SC
Terry NE
Upton MI
Alexander LA

Year: 2011

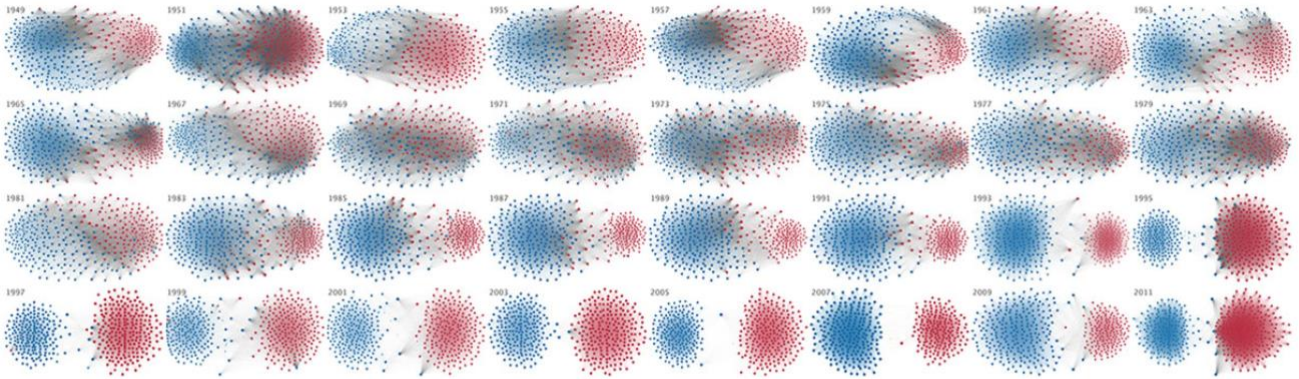

D–D
D–R
R–R
Degree 1 400
Few Many
Peterson MN
Altmire PA
Barrow GA
Matheson UT
Ross AR
Costa CA
McIntyre NC
Donnelly IN
Kissell NC
Owens NY
Shuler NC
Cardoza CA
Becerra CA
Butterfield NC
Israel NY
Neal MA
Price NC
Lowey NY
Cooper TN
Green TX
Baca CA
Grijalva AZ
Kucinich OH
Edwards MD
Hinchey NY
Jackson IL
Olver MA
Lee CA
Davis IL
Honda CA
Speier CA
Deutch FL
Castor FL
Hochul NY
Himes CT
Richardson CA
Lipinski IL
Sires NJ
Chandler KY
Critz PA
Holden PA
Cuellar TX
Simpson ID
Dreier CA
Bilbray CA
Bachus AL
Platts PA
Berg ND
Walberg MI
Landry LA
Manzullo IL
Austria OH
Amash MI
McHenry NC
Gosar AZ
Rohrabacher CA
Broun GA
Miller CA
Bachmann MN
Brady TX
Kingston GA
Hensarling TX
Royce CA
Stearns FL
Franks AZ
Young FL
Stutzman IN
McCarthy CA
Farenthold TX
Fincher TN
Barletta PA
Burgess TX
Kline MN
Palazzo MS
Gerlach PA
LaTourette OH
LoBiondo NJ
Grimm NY
Smith NJ
Runyan NJ
Shuster PA
Diaz-Balart FL

HTTPS://WWW.MAMARTINO.COM/PROJECTS/RISE_OF_PARTISANSHIP/



The Rise of Partisanship in the U.S. House of Representatives

Download PDFs



Summary:

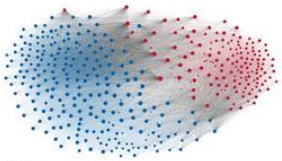
Political Polarization in the U.S. Congress has been a topic of much discussion recently. We show the party polarization of the House of Representatives through time, with a focus on which members continue to participate across party lines (such as southern Democrats from Alabama, Mississippi, Texas and Louisiana cooperating with many Republican voters in the late 1990's and 2000's).

Description:

Each member of the U.S. House of Representatives from 1949 - 2012 is drawn as a single node. Republican (R) representatives are in red and Democrat (D) representatives are in blue, party affiliation changes are not reflected. Edges between nodes are drawn if each member agrees with another member more often than the "threshold value" of votes specific to that particular Congress. The threshold value is the number of agreements where any pair exhibiting this number of agreements is equally likely to comprised of two members of the same party (e.g. D-D or R-R), or a cross-party pair (e.g. D-R). (Methodology and mathematical descriptions available in our paper). Each node is made bigger or smaller based on the number of connections it has. Edges are thicker if the pair agrees on more votes. The starting year of each 2-year Congress is written above the network. The network is drawn using a linear-attraction linear-repulsion model with Barnes Hut optimization.

click to explore

detailed networks 1949 -2013: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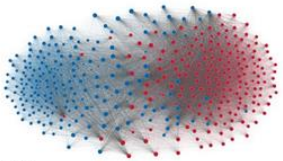
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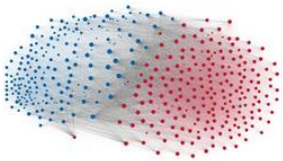
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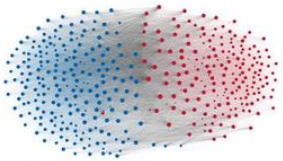
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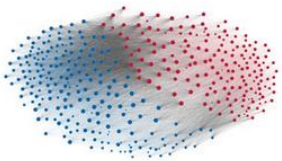
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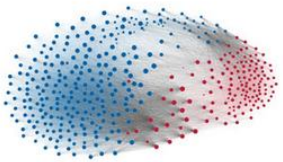
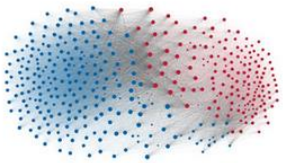
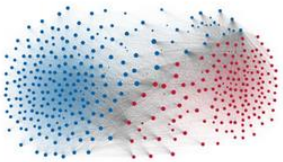
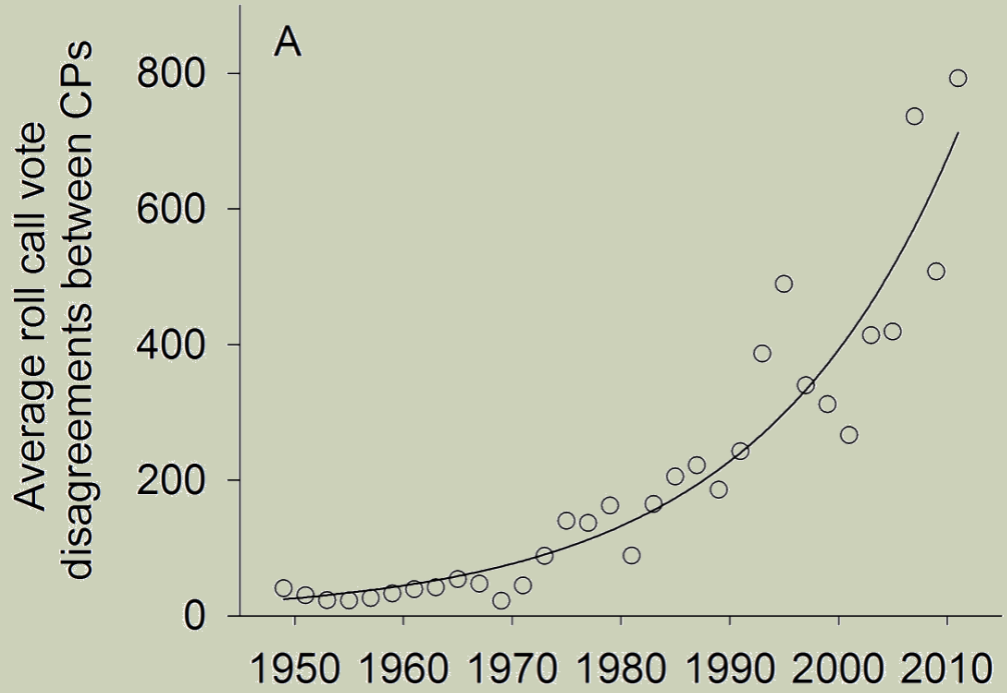

1959


1961

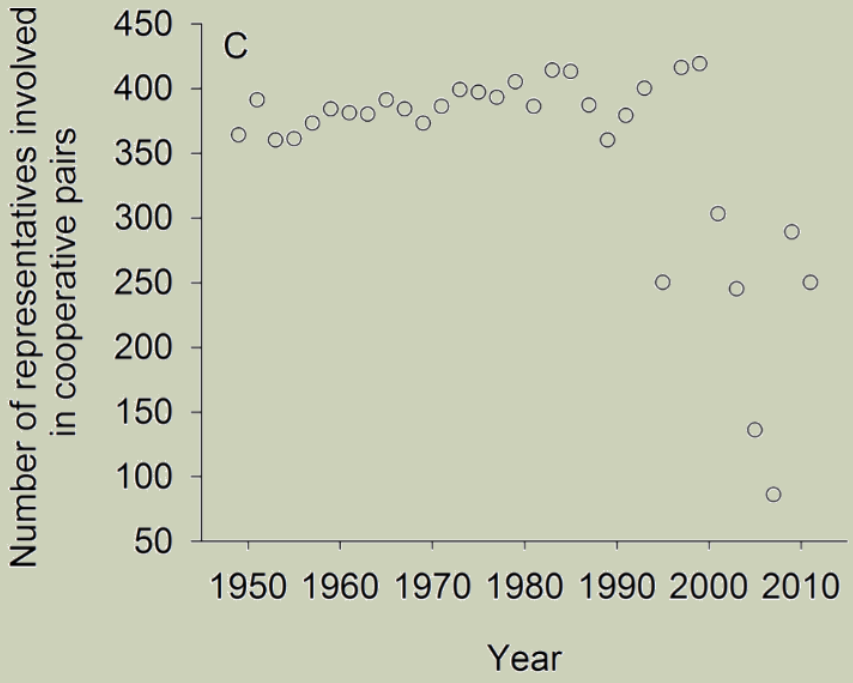

1963

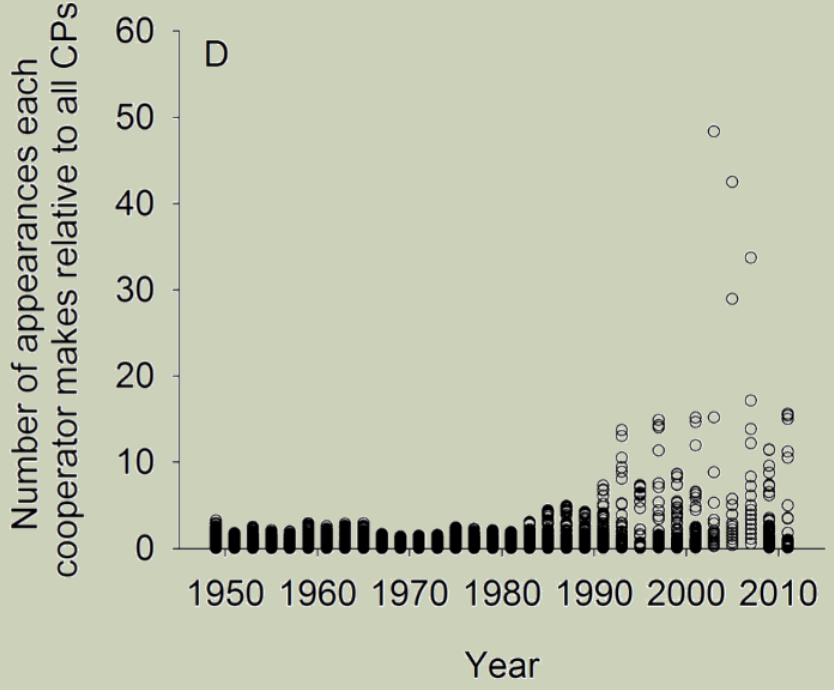
FINDING 3: EXPONENTIAL GROWTH OF PARTISANSHIP

- Partisanship has increased at an annual rate of 5% over the last 60 years. An exponential growth model ($y= c_0 e^{\alpha t)}$ exhibits a fit ($F_{31} = 236.22$, $\alpha=0.05$, $R^2=0.88$, $p < 0.0001$).



FINDINGS 4 & 5: NUMBER OF COOPERATORS PLUMMETS; SUPER-COOPERATORS EMERGE





- Before 1990, no single legislator was in more than 5% of any cooperator pairs.

FINDING 6: SUPER-COOPERATOR BEHAVIOR

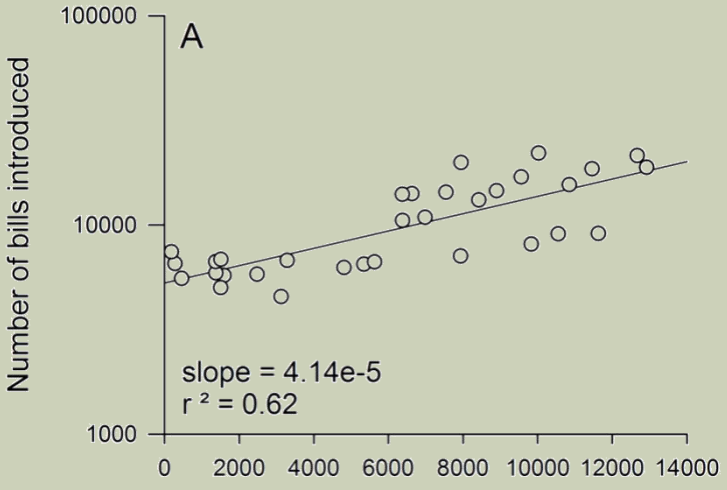
- In the **108th Congress,** a single legislator (Rep. Ralph Hall (D-TX)) is found in 48% of all cooperating pairs (he agreed above the threshold with 220 Republicans).
- In the **109th Congress**, Rep. Dan Boren (D-OK) and Rep. Robert Cramer (D-AL) combined accounted for 71.4% of all cooperator pairs in the 109th Congress.
- In the **110th Congress**, 7 members accounted for 98.3% of all cooperator pairs.
- Super cooperators are most often Democrats from the U.S. South, or Republicans from suburban New York, New Jersey and Maryland.

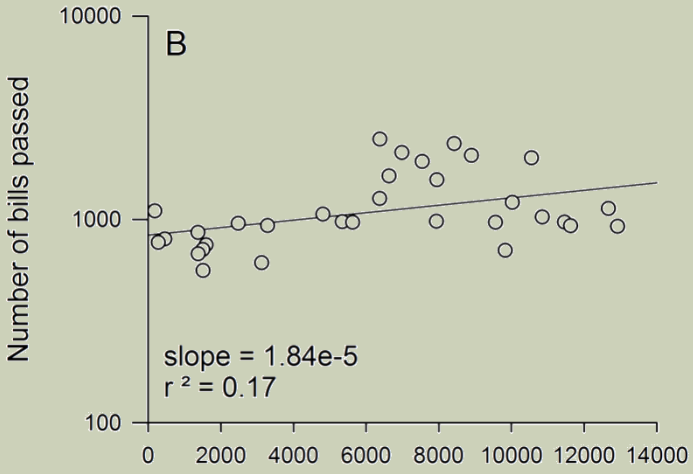
Congress	Representative	Total CP Pairs above Threshold (Cooperators) in the Congress	Representative's Appearances	Appearances as a Percentage of all Cooperator Pairs in the Congress
108	Rep. Ralph Hall [D-TX-4]	455	220	48.351648
109	Rep. Dan Boren [D-OK-2]	280	119	42.5
110	Rep. Christopher Smith [R-NJ-4]	181	61	33.701657
113	Rep. Jim Matheson [D-UT-4]	521	172	33.013436
109	Rep. Robert Cramer [D-AL-5]	280	81	28.928571
110	Rep. Frank LoBiondo [R-NJ-2]	181	31	17.127072
112	Rep. Jim Matheson [D-UT-2]	1508	235	15.583554
112	Rep. Dan Boren [D-OK-2]	1508	235	15.583554
112	Rep. Mike Ross [D-AR-4]	1508	232	15.384615
108	Rep. Robert Cramer [D-AL-5]	455	69	15.164835
108	Rep. Kenneth Lucas [D-KY-4]	455	69	15.164835
107	Rep. Ralph Hall [D-TX-4]	1374	208	15.138282
112	Rep. Collin Peterson [D-MN-7]	1508	226	14.986737
105	Rep. James Traficant [D-OH-17]	1501	223	14.856762
107	Rep. Kenneth Lucas [D-KY-4]	1374	201	14.628821
105	Rep. Ralph Hall [D-TX-4]	1501	214	14.257162
105	Rep. Virgil Goode [D-VA-5]	1501	210	13.990673
110	Rep. John Barrow [D-GA-12]	181	25	13.812155
103	Rep. Benjamin Gilman [R-NY-20]	1591	218	13.702074
103	Rep. Constance Morella [R-MD-8]	1591	207	13.010685
110	Rep. Joe Donnelly [D-IN-2]	181	22	12.154696
107	Rep. Robert Cramer [D-AL-5]	1374	164	11.935953
111	Rep. Walter Minnick [D-ID-1]	1371	157	11.451495
111	Rep. Bobby Bright [D-AL-2]	1371	156	11.378556

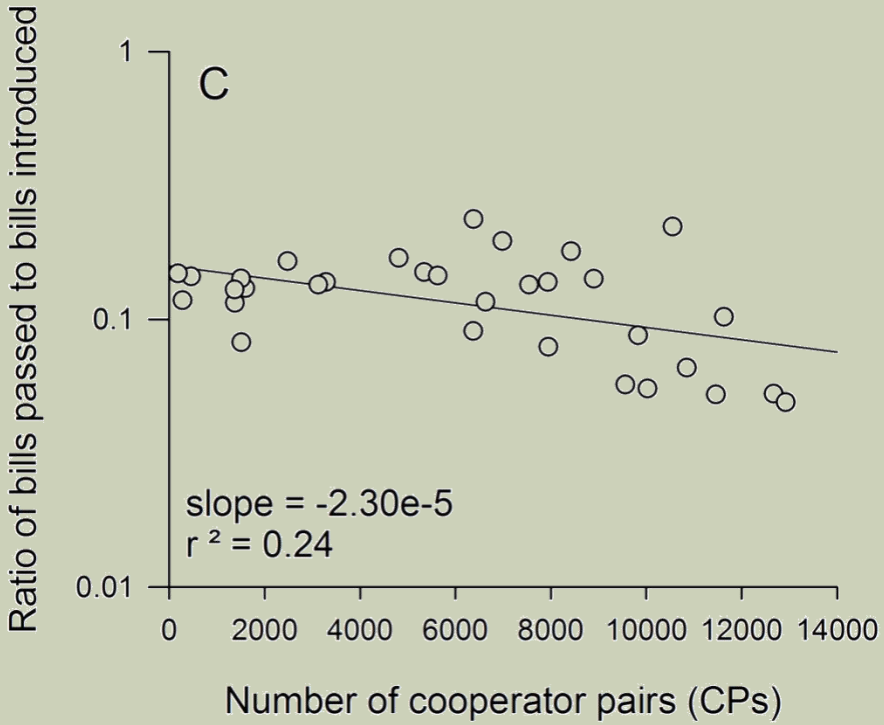
FINDING 7: SUPER-COOPERATOR GEOGRAPHY

- Democrats from Texas (12 appearances), Mississippi (7), Alabama (5), Louisiana, Indiana (4), Georgia, Kentucky, Oklahoma, Ohio, Pennsylvania and Virginia (3).
- The 104th Congress (1995-1996) had the most super-cooperators (13), all of whom were Democrats.
- Republican super-cooperator appearances mostly limited to: New York (10), New Jersey (5) and Maryland (4).
- Preliminary results show more cooperation from Utah Legislators.

FINDING 8: COOPERATION, PRODUCTIVITY & APPROVAL

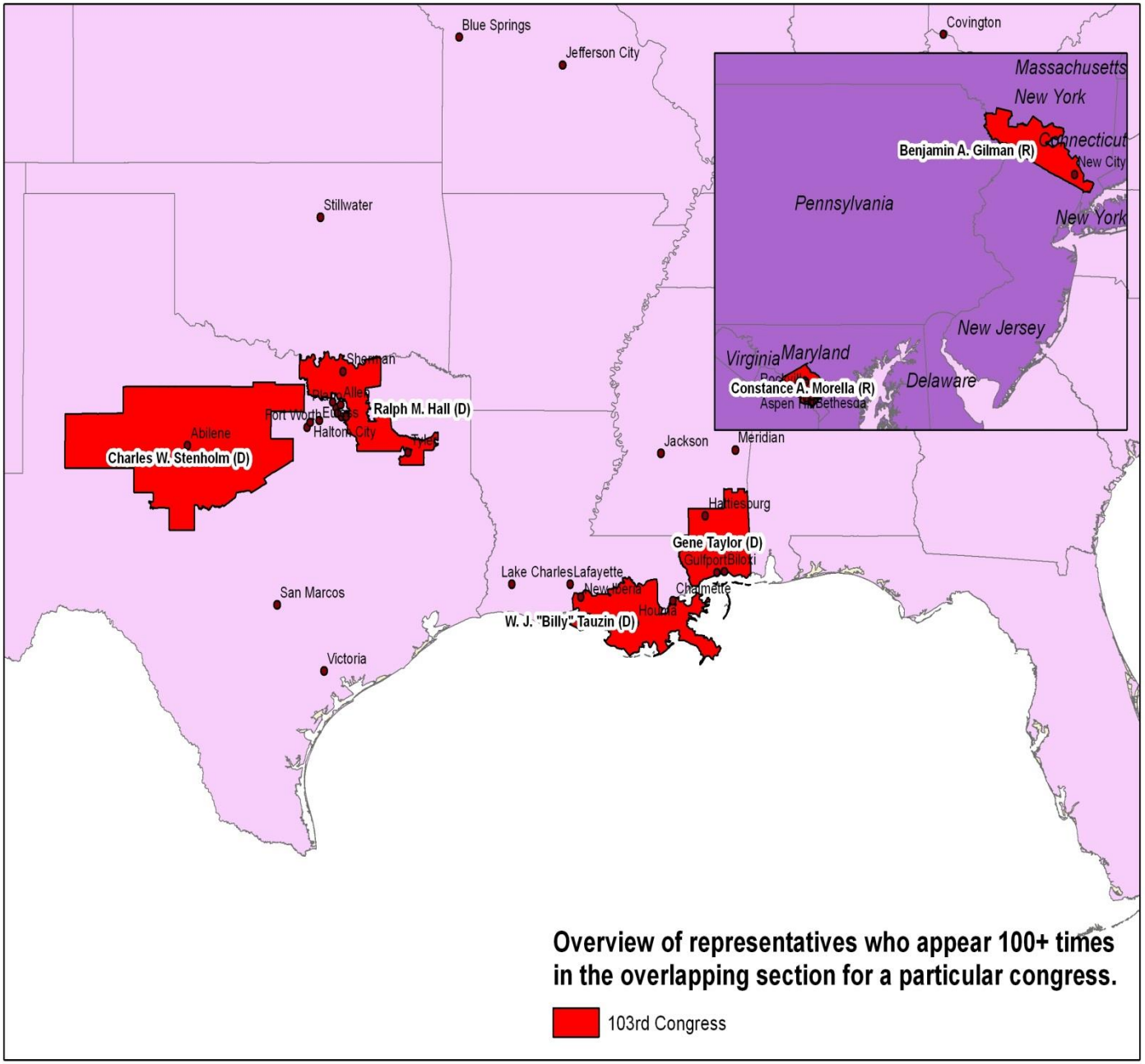


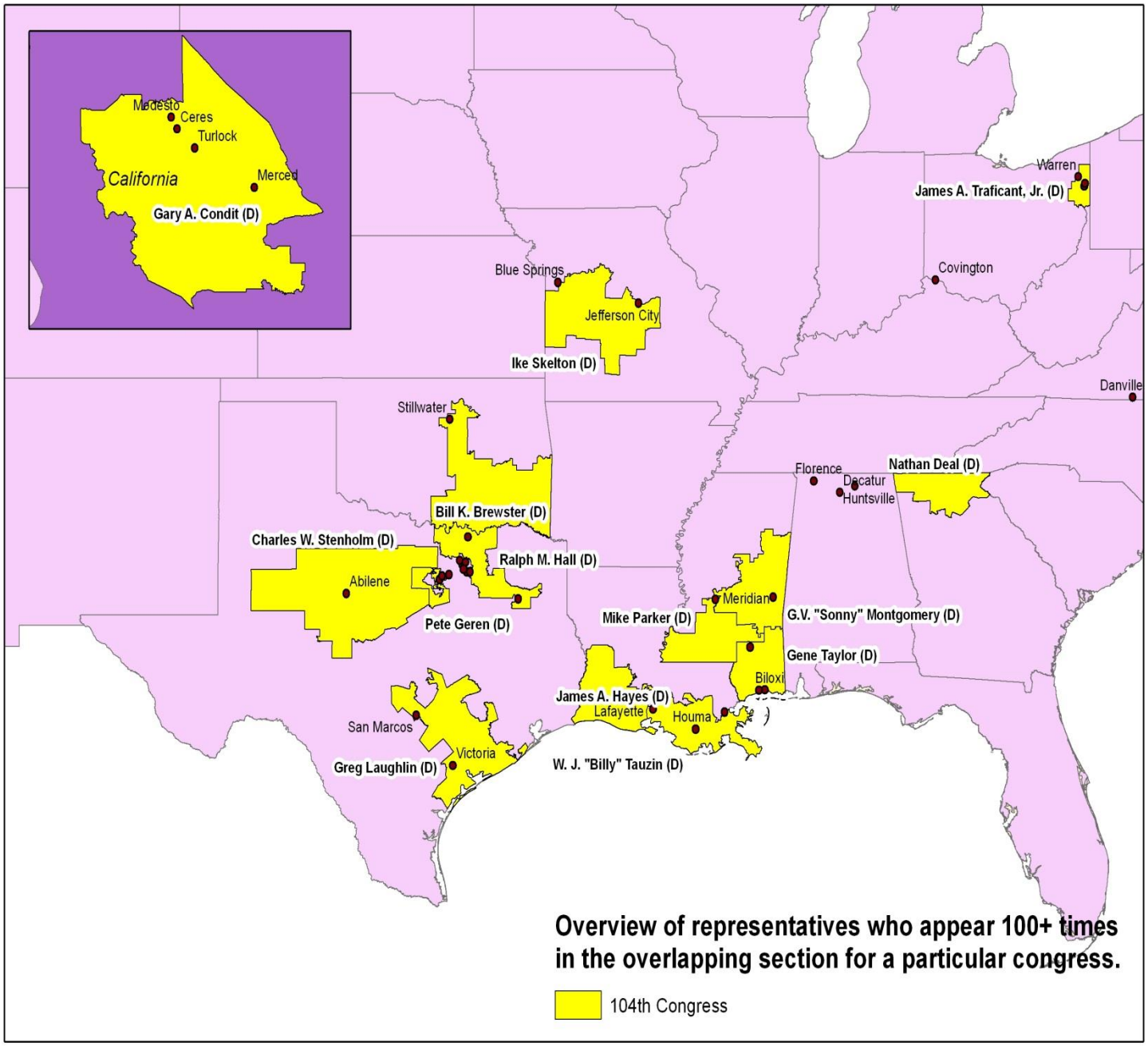


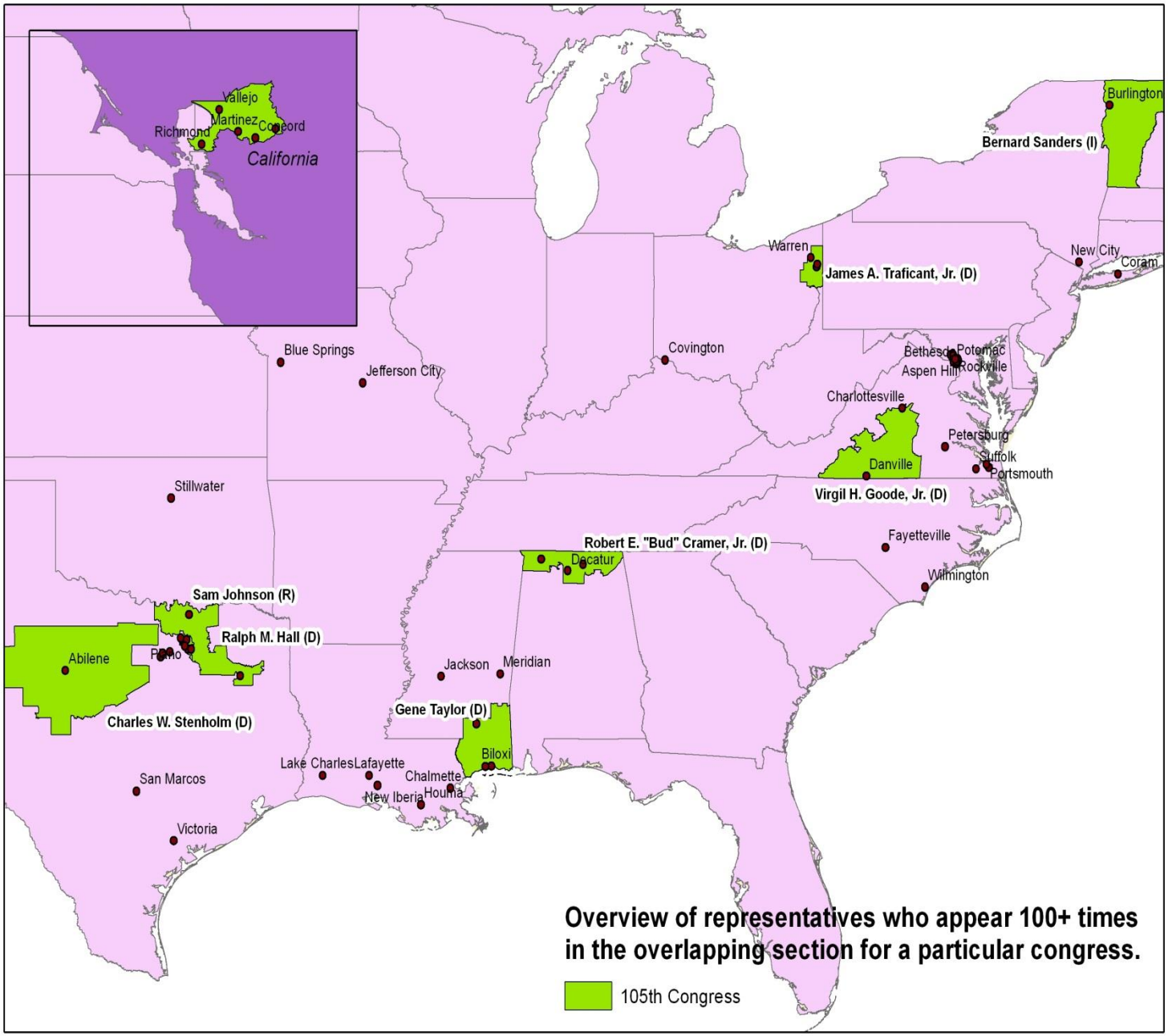


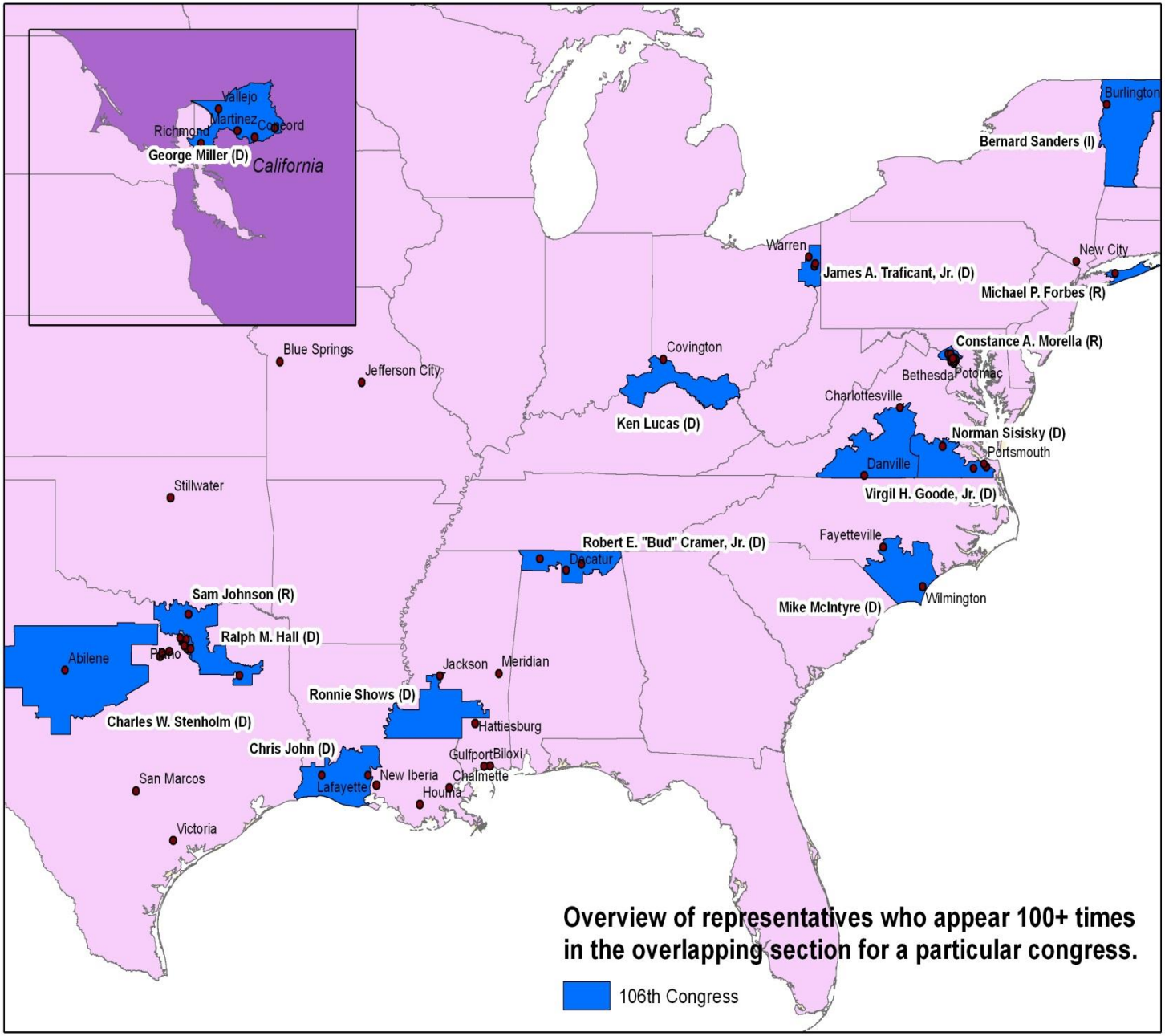
Favorable public opinion of Congress has declined from 60% in the 1960's to 10% today.

(http://www.nytimes.com/interactive/2011/10/25/us/politics/approval-of-congress-drops-to-single-digits.html)

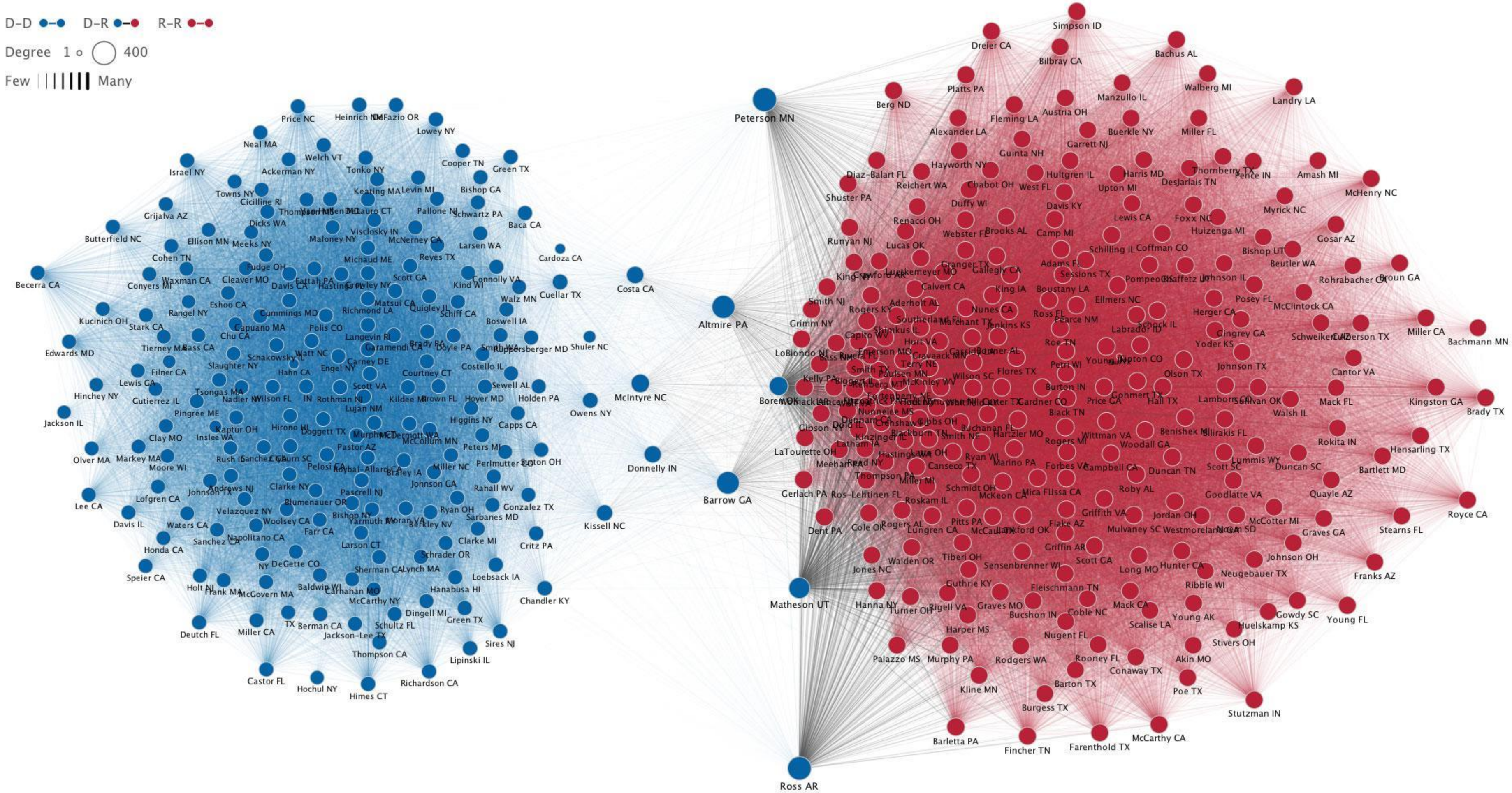

Blue Springs
Jefferson City
Covington
Massachusetts
New York
Connecticut
Benjamin A. Gilman (R)
New City
Pennsylvania
New York
New Jersey
Virginia
Maryland
Delaware
Constance A. Morella (R)
Aspen Hill
Bethesda
Stillwater
Sherman
Ralph M. Hall (D)
Abilene
Charles W. Stenholm (D)
Halton City
Jackson
Meridian
Hattiesburg
Gene Taylor (D)
Gulfport
Biloxi
Lake Charles
Lafayette
New Iberia
Chalmette
Houma
W. J. "Billy" Tauzin (D)
San Marcos
Victoria
Overview of representatives who appear 100+ times in the overlapping section for a particular congress.
103rd Congress


Modesto
Ceres
Turlock
California
Merced
Gary A. Condit (D)
Warren
James A. Traficant, Jr. (D)
Blue Springs
Jefferson City
Ike Skelton (D)
Covington
Danville
Stillwater
Bill K. Brewster (D)
Charles W. Stenholm (D)
Abilene
Ralph M. Hall (D)
Pete Geren (D)
Florence
Decatur
Huntsville
Nathan Deal (D)
Meridian
Mike Parker (D)
G.V. "Sonny" Montgomery (D)
Gene Taylor (D)
Biloxi
James A. Hayes (D)
Lafayette
Houma
W. J. "Billy" Tauzin (D)
San Marcos
Victoria
Greg Laughlin (D)
Overview of representatives who appear 100+ times in the overlapping section for a particular congress.
104th Congress

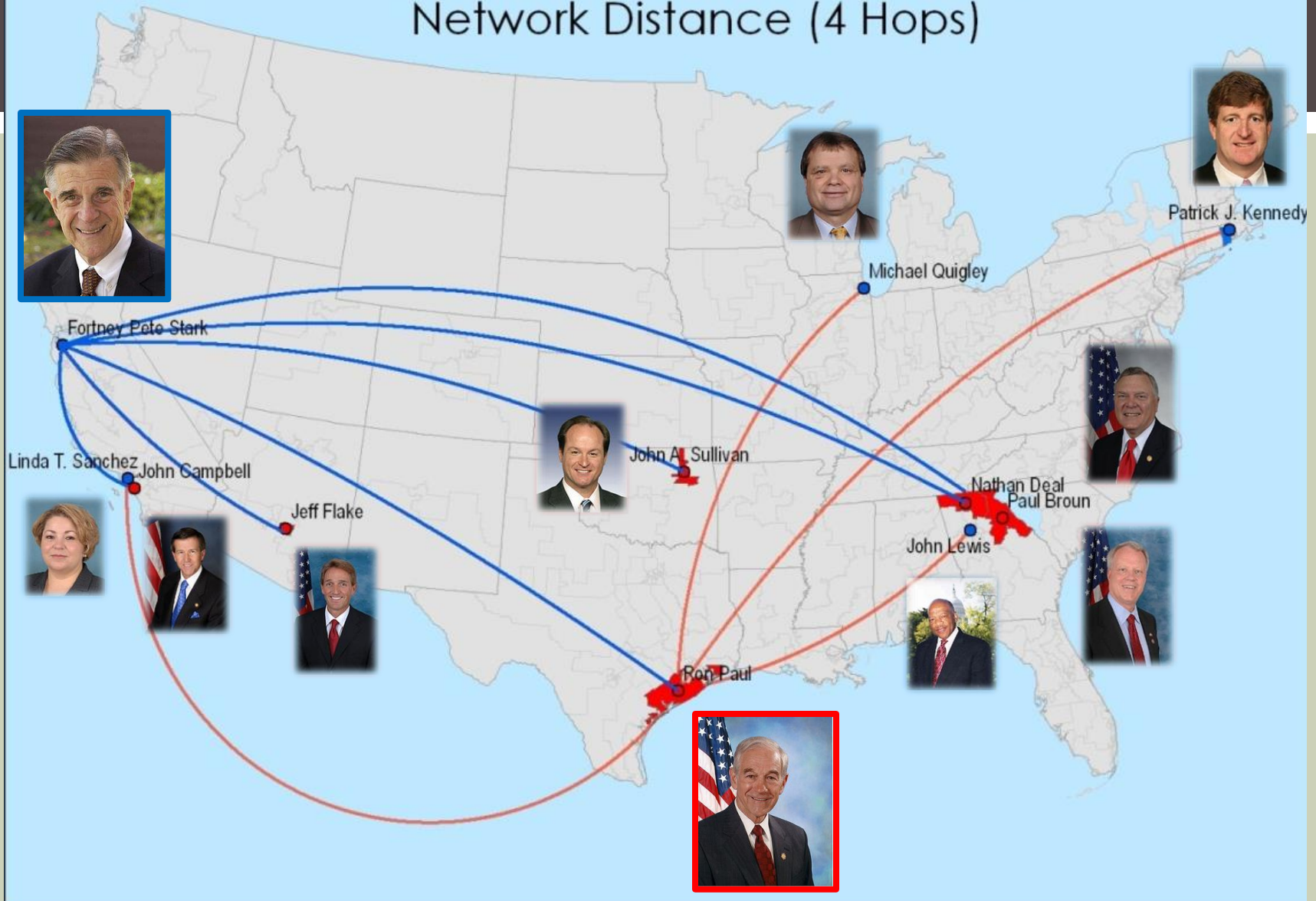

Vallejo
Martinez
Concord
Richmond
California
Burlington
Bernard Sanders (I)
Warren
James A. Traficant, Jr. (D)
New City
Coram
Blue Springs
Jefferson City
Covington
Bethesda
Potomac
Rockville
Aspen Hill
Charlottesville
Petersburg
Danville
Suffolk
Portsmouth
Virgil H. Goode, Jr. (D)
Stillwater
Robert E. "Bud" Cramer, Jr. (D)
Decatur
Fayetteville
Wilmington
Sam Johnson (R)
Ralph M. Hall (D)
Abilene
Jackson
Meridian
Gene Taylor (D)
Charles W. Stenholm (D)
Biloxi
Lake Charles
Lafayette
Chalmette
New Iberia
Houma
San Marcos
Victoria
Overview of representatives who appear 100+ times in the overlapping section for a particular congress.
105th Congress


Vallejo
Martinez
Concord
Richmond
George Miller (D)
California
Burlington
Bernard Sanders (I)
Warren
James A. Traficant, Jr. (D)
New City
Michael P. Forbes (R)
Blue Springs
Jefferson City
Covington
Ken Lucas (D)
Constance A. Morella (R)
Bethesda
Potomac
Charlottesville
Norman Sisisky (D)
Portsmouth
Danville
Virgil H. Goode, Jr. (D)
Stillwater
Robert E. "Bud" Cramer, Jr. (D)
Decatur
Fayetteville
Wilmington
Mike McIntyre (D)
Sam Johnson (R)
Ralph M. Hall (D)
Abilene
Jackson
Meridian
Ronnie Shows (D)
Charles W. Stenholm (D)
Hattiesburg
Chris John (D)
Gulfport
Biloxi
San Marcos
Lafayette
New Iberia
Chalmette
Houma
Victoria
Overview of representatives who appear 100+ times in the overlapping section for a particular congress.
106th Congress

Year: 2011

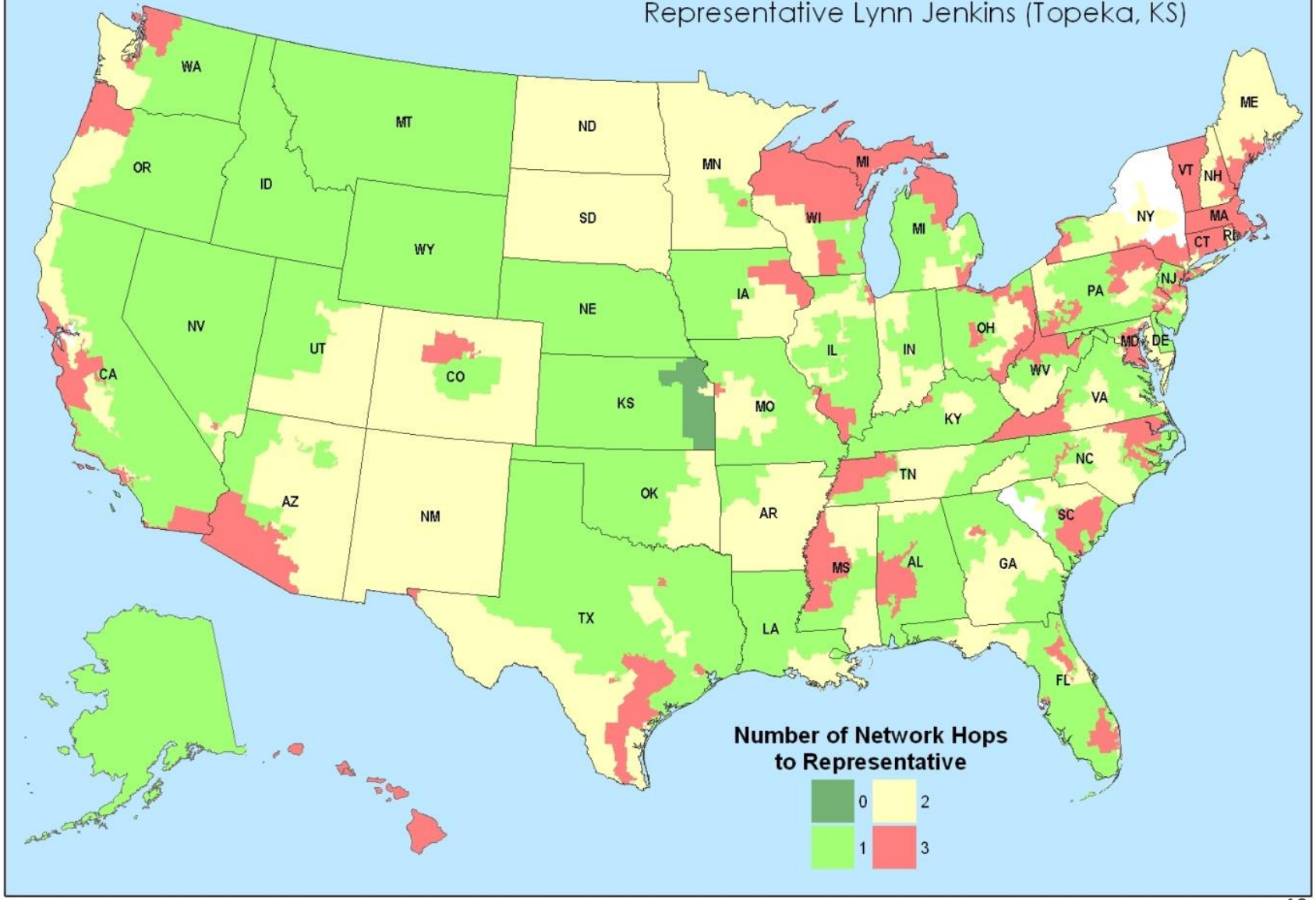

D–D
D–R
R–R
Degree 1 400
Few Many
Peterson MN
Altmire PA
Barrow GA
Matheson UT
Ross AR
Costa CA
McIntyre NC
Donnelly IN
Kissell NC
Owens NY
Shuler NC
Cardoza CA
Becerra CA
Butterfield NC
Israel NY
Jackson IL
Lee CA
Olver MA
Edwards MD
Hinchey NY
Kucinich OH
Speier CA
Deutch FL
Castor FL
Hochul NY
Himes CT
Richardson CA
Lipinski IL
Sires NJ
Chandler KY
Critz PA
Price NC
Neal MA
Lowey NY
Cooper TN
Green TX
Baca CA
Simpson ID
Dreier CA
Bilbray CA
Bachus AL
Walberg MI
Landry LA
Amash MI
McHenry NC
Gosar AZ
Broun GA
Miller CA
Bachmann MN
Brady TX
Kingston GA
Hensarling TX
Royce CA
Stearns FL
Franks AZ
Young FL
Stutzman IN
McCarthy CA
Farenthold TX
Fincher TN
Barletta PA
Burgess TX
Kline MN
Palazzo MS

Pairs with Furthest Maximum Connected Network Distance (4 Hops)



Network Distance from Kansas Representatives

Representative Lynn Jenkins (Topeka, KS)



DISCUSSION & CONCLUSIONS

- **Conclusions:**
  - Partisanship is growing, and it can't get much worse.
  - No 'hidden friendships'. ☹
  - Geography matters a bit…
- Big take away: We are not represented the same way as we were in the past.
  - OLD Representation: 01011011101010110.
  - NEW Representation: 1111111111111111, or 0000000000000000.
  - Even if the election for a representative to vote as 1111111111111 and 0000000000000 is won by 1%.

QUIZ QUESTIONS FOR YOU

- Does gerrymandering 'help' foster better relationships because the boundaries are so intertwined?
- What other method does the network approach 'improve' upon?
- Does partisanship grow exponentially over time?
- Does partisanship correlate with more productivity?
- Who (what types of representatives) were the 'cooperators'?

OPEN ENDED DISCUSSION

- What would we find if we performed this study in other countries?
- Would you want to see this re-done for today? Why?
- Is this is network analysis, a geography study, a political study or a visualization study?
- What data would you like to see among the representatives?
- What do you think will happen in the future?

THANK YOU!

"Think Congress is a big, dysfunction, polarized mess? Just wait: It's going to get worse."

-C Mahtesian and J VandeHei (2012) *Politico* (via O Snowe)