

Appendices

APPENDIX A

Issue Coding for Disadvantaged Group Advocacy for Reputation Measure

Table A-1 presents the list of issues that are included as instances of advocacy for a disadvantaged group, in addition to all actions that are specifically attributed to being done to serve a particular group.

TABLE A-1 *Issue coding by disadvantaged group*

Veterans

- Employment assistance (workforce training/increased licensures and certifications from military experience/employer tax credits for hiring/employment protections for returning guard members)
- Creation of veteran job corps
- Educational assistance (tuition assistance/GI Bill)
- Healthcare (head trauma/PTSD/benefits expansion/telemedicine for rural vets/veteran suicide prevention/access to mental health care/counseling on deployment and return)
- Assistance for disabled vets (housing/benefits/employment)
- Housing benefits (homelessness prevention/special assistant at HUD)
- VA improvements (fixing backlog/higher reimbursements for longer travels/automatic enrollment and training in using the system)
- Resources for survivors of military sexual assault
- Improvement of reintegration programs (counseling/financial planning)
- Veterans History Project

Seniors

- Protecting against financial scams
- Medicare protection/expansion
- Social Security protection/expansion (COLA increases/eliminating income cap)
- Opposition to voter registration/ID laws (because of effects on elderly)
- Expanding prescription drug coverage for seniors

(continued)

TABLE A-1 (continued)

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- Senior nutrition and other services
 - Older Americans Act
 - Expanding access to hospice and long-term care

LGBTQ

- Repeal DADT
- Repeal DOMA
- Legalizing same-sex marriage
- Employment protections
- Government employee benefits for same-sex partners
- Anti-bullying and nondiscrimination policies
- Domestic violence/sexual assault protections (VAWA)
- HIV/AIDS

Racial/Ethnic Minorities

- Confinement/racial profiling/marijuana and other drug offenses/former inmate reintegration/police brutality
- Reparations (slavery/Japanese internment)
- Treatment HIV/AIDS (including in prison)
- Voting rights (opposition to attempts to end early voting and require additional voter registration or ID/simplify voter registration of Voting Rights Act)
- Civil Rights Act
- Housing assistance
- Employment (increase federal grants and contracts to minority-owned business/assistance to Black farmers)
- African American History Museum
- MLK birthday as federal holiday
- Education (minorities in STEM, government and private partnerships with minority colleges/funding)

Immigrants

- Immigration reform (path to citizenship/legal status/worker status/asylum seekers)
- Shorten citizenship waiting period (members of military/family reunification)
- DREAM act
- Domestic violence protections (VAWA)
- Citizenship education programs (English language assistance/naturalization workshops)
- Legal status for military/college
- Elimination of country caps

Women

- Reproductive rights (abortion coverage/contraception coverage and availability)

(continued)

TABLE A-1 (continued)

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- Employment (equal pay/pregnancy discrimination/breast pump space)
 - Healthcare (mammograms/breast cancer/nopays for preventative care)
 - Sexual assault and domestic violence (VAWA/military programs/expansion of definition of rape/homelessness prevention for domestic violence victims)
 - Military (expansion of roles for women/equipment like body armor to fit women)

Poor

- Employment assistance (worker training/new WPA or other job corps/tax credits for employers hiring someone unemployed or on public assistance/ create “empowerment zones” providing tax credits for companies going into impoverished areas)
 - Unemployment benefits
 - Housing assistance (renters/homelessness/heating assistance/Home Energy Assistance Program/Affordable Housing Trust Fund/foreclosure assistance/ tax credit for the creation of low-income housing)
 - Nutrition (expansion of SNAP benefits/SNAP at farmer’s markets/free and reduced lunch benefits)
 - Education (Head Start/access to art, economics, civics, and foreign language classes/TRIO programs and outreach to disadvantaged students)
 - Healthcare (Children’s Health Insurance Program/Medicaid expansion/dental coverage/support for community health centers/continuous open enrollment for Medicaid and CHIP)
 - Expanded access to child care
 - Broadband access for low-income communities
 - Minimum wage increase
 - Free tax prep for low-income individuals and families and financial literacy programs
 - TANF benefit extensions
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APPENDIX B**Reputations for Primary and Secondary Disadvantaged-Group Advocacy in the House and the Senate**

The following tables present a list of members who are coded in the 103rd, 105th, 108th, 110th, or 113th Congresses as having a reputation for primary or secondary advocacy of disadvantaged groups. Table B-1 shows the members with these reputations in the House of Representatives, while Table B-2 does the same for those in the Senate.

TABLE B-1 *Reputations for primary and secondary advocacy by disadvantaged group in the House of Representatives (103rd, 105th, 108th, 110th, 113th Congresses)*

Veterans	
Jeff Miller (R-FL1)	Dave Weldon (R-FL15)
Gus Bilirakis (R-FL12)	Bill Pascrell (D-NJ8)
Dan Benishek (R-MI01)	Marcy Kaptur (D-OH9)
Joe Runyan (R-NJ3)	Mike Doyle (D-PA14)
Joe Wilson (R-SC2)	Silvestre Reyes (D-TX14)
Vic Snyder (D-AR02)	Bob Stump (R-AZ3)
Bob Filner (D-CA51)	Luis Guterrez (D-IL4)
Susan Davis (D-CA53)	Steve Buyer (R-IN5)
Ginny Brown-Waite (R-FL5)	Maxine Waters (D-CA35)
Tom Latham (R-IA04)	George Sangmeister (D-IL11)
Henry Brown (R-SC1)	Jill Long (D-IN4)
Solomon Ortiz (D-TX27)	David Bonior (D-MI10)
Lane Evans (D-IL17)	Jack Fields (R-TX8)
Sonny Montgomery (D-MS3)	Frank Tejeda (D-TX28)
Douglas Applegate (D-OH18)	Mike Rogers (R-AL3)
Corrine Brown (D-FL5)	Elton Gallegly (R-CA24)
Seniors	
Mike Rogers (R-AL3)	Richard Burr (R-NC5)
Pete Stark (D-CA13)	Steve Israel (D-NY2)
Tom Allen (D-ME1)	Rob Portman (R-OH2)
Jo Ann Emerson (R-MO8)	Jim Turner (D-TX2)
Lloyd Doggett (D-TX25)	Sam Johnson (R-TX3)

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Earl Pomeroy (D-ND1)
 Gerald Kleczka (D-WI4)
 William Clay (D-MO1)
 Jill Long (D-IN4)
 Jeff Miller (R-FL1)
 Gus Bilirakis (R-FL12)
 Joe Wilson (R-SC2)
 Terry Everett (R-AL2)
 Dennis Moore (D-KS3)
 Carolyn Maloney (D-NY14)
 Pat Tiberi (R-OH12)
 Ted Strickland (D-OH6)
 Kent Bentson (D-TX25)
 Ted Deutch (D-FL21)
 Peter DeFazio (D-OR4)
 David McKinley (R-WV4)
 Marlon Berry (D-AR1)

Dave Camp (R-MI4)
 John Dingell (D-MI15)
 Jim Ramstad (R-MN3)
 Bill Pascrell (D-NJ8)
 Joseph Crowley (D-NY7)
 John Peterson (R-PA5)
 Shelley Moore Capito (R-WV2)
 Robert Matsui (D-CA5)
 Nancy Johnson (R-CT5)
 Peter Deutch (D-FL20)
 E. Clay Shaw (R-FL22)
 Jan Schakowski (D-IL9)
 Jim McCrery (R-IA4)
 John Tierney (D-MA6)
 Benjamin Cardin (D-MD3)
 Michael Michaud (D-ME1)
 Gil Gulknecht (R-MI1)

Jared Polis (D-CO2)
 Barney Frank (D-MA4)
 Jim Kolbe (R-AZ8)
 Nancy Pelosi (D-CA8)

Racial/Ethnic Minorities
 Barbara Lee (D-CA13)
 John Lewis (D-GA5)
 Keith Ellison (D-MN5)
 William Clay (D-MO1)
 Earl Hilliard (D-AL7)

Bernard Sanders (I-VT1)
 Earl Hilliard (D-AL7)
 Matthew Martinez (D-CA31)
 Greg Ganske (R-IA4)
 Dennis Hastert (R-IL14)
 Dale Kildee (D-MI9)
 Richard Gephardt (D-MO3)
 Charles Rangel (D-NY15)
 Sherrod Brown (D-OH13)
 Chaka Fattah (D-PA2)
 Tim Holden (D-PA6)
 Patrick Kennedy (D-RI1)
 Al McCandless (R-CA44)
 C.W. Bill Young (R-FL10)
 Andrew Jacobs (D-IN10)
 Sander Levin (D-MI12)
 J.J. Pickle (D-TX10)

Patricia Schroeder (D-CO1)
 Jim McDermott (D-WA7)

Bob Clement (D-TN5)
 Ben Ray Lujan (D-NM3)
 Artur Davis (D-AL7)
 Ed Pastor (D-AZ4)
 Hilda Solis (D-CA32)

Gregory Meeks (D-NY6)
 Sheila Jackson-Lee (D-TX18)
 Cynthia McKinney (D-GA4)
 Donald Payne (D-NJ10)
 Norman Mineta (D-CA15)

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TABLE B-1 (continued)

Tom Latham (R-IA04)	Don Edwards (D-CA16)	Grace Napolitano (D-CA38)
Xavier Becerra (D-CA31)	Ileana Ros-Lehtinen (R-FL18)	Joe Baca (D-CA43)
Gene Green (D-TX29)	Cardiss Collins (D-IL7)	Kendrick Meek (D-FL17)
Bennie Thompson (D-MS2)	Kwesi Mfume (D-MD7)	William Jefferson (D-LA2)
Ciro Rodriguez (D-TX23)	Barbara-Rose Collins (D-MI15)	Albert Wynn (D-MD4)
Yvette Clark (D-NY9)	Craig Washington (D-TX18)	Emanuel Cleaver (D-MO5)
Ruben Hinojosa (D-TX15)	Edolphus Towns (D-NY10)	G.K. Butterfield (D-NC1)
Solomon Ortiz (D-TX27)	Pete Stark (D-CA13)	Jose Serrano (D-NY16)
Juanita Millender-McDonald (D-CA37)	Chaka Fattah (D-PA2)	Silvestre Reyes (D-TX16)
Maxine Waters (D-CA43)	Cliff Stearns (R-FL6)	Charlie Gonzalez (D-TX20)
Bobby Rush (D-IL1)	Raul Grijalva (D-AZ7)	Robert Menendez (D-NJ13)
John Conyers (D-MI13)	Linda Sanchez (D-CA39)	Amo Houghton (R-NY29)
Marcia Fudge (D-OH11)	Alcee Hastings (D-FL23)	Robert Matsui (D-CA5)
Steve Cohen (D-TN9)	Charles Rangel (D-NY15)	Lincoln Diaz-Balart (R-FL21)
Robert Scott (D-VA3)	Lacy Clay (D-MO1)	Floyd Flake (D-NY6)
Michael Honda (D-CA15)	Jesse Jackson (D-IL2)	Henry Bonilla (R-TX23)
Diane Watson (D-CA33)	Joseph Kennedy (D-MA8)	Alan Wheat (D-MO5)
Danny Davis (D-IL7)	Nydia Velazquez (D-NY12)	Major Owens (D-NY11)
Carolyn Cheeks Kirkpatrick (D-MI13)	Lane Evans (D-IL-17)	Hamilton Fish (R-NY19)
Melvin Watt (D-SC12)	Terry Everett (R-AL2)	Louis Stokes (D-OH11)
Eddie Bernice Johnson (D-TX30)	Henry Brown (R-SC1)	Tom Sawyer (D-OH14)
Ed Pastor (D-AZ4)	Jack Fields (R-TX8)	Thomas Foglietta (D-PA1)
Lucille Roybal-Allard (D-CA34)	Luis Guterrez (D-IL4)	
Elijah Cummings (D-MD7)	James Clyburn (D-SC6)	
Immigrants		
Xavier Becerra (D-CA31)	Hilda Solis (D-CA32)	Bob Filner (D-CA50)
Yvette Clark (D-NY9)	Zoe Lofgren (D-CA19)	Barney Frank (D-MA4)
Lucille Roybal-Allard (D-CA34)	Linda Sanchez (D-CA39)	Loretta Sanchez (D-CA46)
Ed Pastor (D-AZ4)	Mario Diaz-Balart (R-FL25)	Raul Labrador (R-ID1)

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Raul Grijalva (D-AZ7)	Howard Berman (D-CA26)	Mary Bono (R-CA45)
Nydia Velazquez (D-NY21)	Ruben Hinojosa (D-TX15)	Tom Campbell (R-CA15)
Terry Everett (R-AL2)	Sheila Jackson-Lee (D-TX18)	Romano Mazzoli (D-KY3)
Jose Serrano (D-NY16)	Kendrick Meek (D-FL17)	Luis Gutierrez (D-IL4)
Ileana Ros-Lehtinen (R-FL18)	Judy Chu (D-CA27)	Grace Napolitano (D-CA38)
Lincoln Diaz-Balart (R-FL21)	Major Owens (D-NY11)	
Women		
Linda Sanchez (D-CA38)	Zoe Lofgren (D-CA19)	Olympia Snowe (R-ME2)
Lucille Roybal-Allard (D-CA34)	Hilda Solis (D-CA32)	Barbara Vucanovich (R-NV2)
Don Edwards (D-CA16)	Lois Capps (D-CA24)	Ron Wyden (D-OR3)
Cardiss Collins (D-IL7)	Sam Farr (D-CA17)	Steve Buyer (R-IN5)
Carolyn Maloney (D-NY14)	Barbara Lee (D-CA13)	John Shimkus (R-IL19)
Nita Lowey (D-NY18)	Edolphus Towns (D-NY10)	Tim Ryan (D-OH17)
Gwen Moore (D-WI4)	Chaka Fattah (D-PA2)	Anna Eshoo (D-CA14)
Loretta Sanchez (D-CA47)	Eddie Bernice Johnson (D-TX30)	Melissa Hart (R-PA4)
Juanita Millender-McDonald (D-CA37)	Lynn Woolsey (D-CA6)	Nancy Johnson (R-CT6)
Patricia Schroeder (D-CO1)	Ed Royce (R-CA40)	Steny Hoyer (D-MD5)
Jackie Speier (D-CA14)	Jerrold Nadler (D-NY10)	Ike Skelton (D-MO4)
Rosa DeLauro (D-CT3)	Henry Waxman (D-CA30)	Jennifer Dunn (R-WA8)
Diana DeGette (D-CO1)	Corrine Brown (D-FL3)	Vic Fazio (D-CA3)
Louise Slaughter (D-NY28)	Susan Davis (D-CA53)	John Edward Porter (R-IL10)
Barbara Kennelly (D-CT1)	Tom Allen (D-ME1)	Tony Hall (D-OH3)
Patsy Mink (D-HI2)	Douglas Applegate (D-OH18)	Ronald Machtley (R-R11)
Constance Morella (R-MD8)	Tammy Baldwin (D-WI2)	Marilyn Lloyd (D-TN 3)
Susan Molinari (R-NY13)	Sue Kelly (R-NY19)	
Sheila Jackson-Lee (D-TX18)	Elizabeth Furse (D-OR1)	
Poor		
Gwen Moore (D-WI4)	Barbara Kennelly (D-CT1)	Jill Long (D-IN4)
Juanita Millender-McDonald (D-CA37)	Linda Sanchez (D-CA39)	Jeff Miller (R-FL1)

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TABLE B-1 (continued)

Patsy Mink (D-HI2)	Sheila Jackson-Lee (D-TX18)	Ted Strickland (D-OH6)
Hilda Solis (D-CA32)	Edolphus Towns (D-NY10)	John Tierney (D-MA6)
Barbara Lee (D-CA13)	Diana DeGette (D-CO1)	Bernard Sanders (I-VT1)
Lynn Woolsey (D-CA6)	Tom Allen (D-ME1)	Matthew Martinez (D-CA31)
Henry Waxman (D-CA29)	Tammy Baldwin (D-WI2)	Earl Pomeroy (D-ND1)
Tony Hall (D-OH3)	Ron Wyden (D-OR3)	Anthony Weiner (D-NY9)
Nydia Velazquez (D-NY21)	Louise Slaughter (D-NY28)	John Peterson (R-PA5)
Maxine Waters (D-CA43)	Gene Green (D-TX29)	Max Sandlin (D-TX1)
Carolyn Cheeks Kirkpatrick (D-MI13)	John Conyers (D-MI13)	Walter Capps (D-CA22)
Charles Rangel (D-NY15)	Michael Bilirakis (R-FL9)	Jim Maloney (D-CT5)
Chaka Fattah (D-PA2)	Jesse Jackson (D-IL2)	Carrie Meek (D-FL17)
Xavier Becerra (D-CA31)	William Clay (D-MO1)	Jerry Costello (D-IL12)
Raul Grijalva (D-AZ7)	Dale Kildee (D-MI9)	Karen McCarthy (D-MO5)
Ruben Hinojosa (D-TX15)	Stephanie Tubbs Jones (D-OH11)	William Coyne (D-PA14)
Major Owens (D-NY11)	Phil English (R-PA3)	Bob Stump (R-AZ3)
Jose Serrano (D-NY16)	George Miller (D-CA11)	David Loebsack (D-IA2)
Al Green (R-TX9)	Chellie Pingree (D-ME1)	Brett Guthrie (D-KY2)
John Lewis (D-GA5)	Judy Biggert (R-IL13)	Michael Turner (R-OH10)
Keith Ellison (D-MN5)	Luis Gutierrez (D-IL4)	Spencer Bachus (R-AL6)
Tom Latham (R-IA04)	Mary Bono (R-CA45)	David Obey (D-WI7)
Marcia Fudge (D-OH11)	Tom Sawyer (D-OH14)	Terri Sewell (D-AL7)
Robert Scott (D-VA3)	Jan Schakowsky (D-IL9)	John Larson (D-CT1)
Diane Watson (D-CA33)	Sam Farr (D-CA17)	David Scott (D-GA13)
Danny Davis (D-IL7)	Jim McGovern (D-MA3)	Carol Shea-Porter (D-NH1)
Barbara-Rose Collins (D-MI15)	Sander Levin (D-MI12)	Timothy Bishop (D-NY1)
Joseph Kennedy (D-MA8)	Earl Hilliard (D-AL7)	Mark Souder (R-IN3)
Henry Brown (R-SC1)	Bennie Thompson (D-MS2)	Martin Olav Sabo (D-MN5)

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Artur Davis (D-AL7)	Donald Payne (D-NJ10)	Mike McIntyre (D-NC7)
Bobby Rush (D-IL1)	Kwesi Mfime (D-MD7)	Virgil Goode (R-VA5)
Floyd Flake (D-NY6)	Pete Stark (D-CA13)	Tom Petri (R-WI6)
Andre Carson (D-IN7)	Cliff Stearns (R-FL6)	Scott Baesler (D-KY6)
Julia Carson (D-IN7)	G.K. Butterfield (D-NC1)	John Olver (D-MA1)
Eva Clayton (D-NC1)	Gregory Meeks (D-NY6)	Jim Ramstad (R-MN3)
Barney Frank (D-MA4)	Henry Bonilla (R-TX23)	Bruce Vento (D-MN4)
Jim McDermott (D-WA7)	Thomas Foglietta (D-PA1)	Louis Stokes (D-OH11)
Frederica Wilson (D-FL24)	Frank Pallone (D-NJ6)	Ron Klink (D-PA4)
Lloyd Doggett (D-TX25)	Albert Wynn (D-MD4)	Jon Fox (R-PA13)
Ric Keller (R-FL8)	Lacy Clay (D-MO1)	Thomas Barrett (D-WV1)
Jack Quinn (R-NY27)	Loretta Sanchez (D-CA47)	Neil Abercrombie (D-OH1)
Benjamin Cardin (D-MD3)	Harold Ford (D-TN9)	James Oberstar (D-MN8)
Nita Lowey (D-NY18)	Julian Dixon (D-CA32)	Ronald Dellums (D-CA9)
Rosa DeLauro (D-CT3)	Christopher Shays (R-CT4)	Lucille Roybal-Allard (D-CA34)

TABLE B-2 *Reputations for primary and secondary advocacy by disadvantaged group in the Senate (103rd, 105th, 108th, 110th, 113th Congresses)*

Veterans		
Tom Daschle (D-SD)	John Rockefeller (D-WV)	Patty Murray (D-WA)
John Glenn (D-OH)	Arlen Specter (R-PA)	John Boozman (R-AR)
Frank Murkowski (R-AK)	Tim Johnson (D-SD)	Bill Nelson (D-FL)
Barbara Mikulski (D-MD)	Larry Craig (R-ID)	
Seniors		
John Rockefeller (D-WV)	David Pryor (D-AR)	Jon Corzine (D-NJ)
Bill Nelson (D-FL)	John McCain (R-AZ)	Mark Dayton (D-MN)
Debbie Stabenow (D-MI)	Daniel Patrick Moynihan (D-NY)	Ron Wyden (D-OR)
Marco Rubio (R-FL)	Harry Reid (D-NV)	Herb Kohl (D-WI)
Tim Johnson (D-SD)	William Roth (R-DE)	Benjamin Cardin (D-MD)
Bernard Sanders (I-VT)	John Breaux (D-LA)	Tom Harkin (D-IA)
LGBTQ		
Tammy Baldwin (D-WI)	Gordon Smith (R-OR)	Charles Robb (D-VA)
Racial/Ethnic Minorities		
Carol Moseley-Braun (D-IL)	Bob Dole (R-KS)	Bill Bradley (D-NJ)
Edward Kennedy (D-MA)	John Danforth (R-MO)	
Howard Metzenbaum (D-OH)	James Jeffords (R-VT)	
Immigrants		
Spencer Abraham (R-MI)	Larry Craig (R-ID)	Robert Menendez (D-NJ)
Richard Durbin (D-IL)	Alan Simpson (R-WY)	
Edward Kennedy (D-MA)	John McCain (R-AZ)	
Women		
Carol Moseley-Braun (D-IL)	Bill Bradley (D-NJ)	Harry Reid (D-NV)
Barbara Mikulski (D-MD)	Charles Schumer (D-NY)	Bob Packwood (R-OR)
Patty Murray (D-WA)	Kay Bailey Hutchison (R-TX)	Joseph Biden (D-DE)
Olympia Snowe (R-ME)	Tammy Baldwin (D-WI)	John Chafee (R-RI)
Barbara Boxer (D-CA)	Kirsten Gillibrand (D-NY)	
Poor		
John Rockefeller (D-WV)	Gordon Smith (R-OR)	Richard Durbin (D-IL)

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TABLE B-2 (continued)

Bernard Sanders (I-VT)	Claiborne Pell (D-RI)	Christopher Dodd (D-CT)
Olympia Snowe (R-ME)	Daniel Patrick Moynihan (D-NY)	Blanche Lincoln (D-AR)
Tom Harkin (D-IA)	Jon Corzine (D-NJ)	Peter Fitzgerald (R-IL)
Paul Wellstone (D-MN)	Orrin Hatch (R-UT)	Maria Cantwell (D-WA)
Edward Kennedy (D-MA)	Charles Grassley (R-IA)	Paul Sarbanes (D-OR)
Robert Menendez (D-NJ)	Daniel Coats (R-IN)	Jeff Merkley (R-OR)
Paul Simon (D-IL)	Jeff Bingaman (D-NM)	Jack Reed (D-RI)
Bob Dole (R-KS)	Pete Domenici (R-NM)	

APPENDIX C

Multilevel Regression with Poststratification and Estimating State and District Ambient Temperature

Multilevel regression with poststratification (MRP) is a technique that uses multilevel modeling and Bayesian statistics to generate estimates that are a function of both demographic and geographic characteristics (Park, Gelman, and Bafumi, 2004; Lax and Phillips, 2009; Warshaw and Rodden, 2012). This method combines demographic and public opinion data to create predictions for small subsets of the population, which are then weighted by subgroup population within a geographic area and summed for all subgroups within that area (in this case, a congressional district.) For data with an inherently hierarchical structure (as is the case for individuals within districts that are within states), multilevel models have an advantage over classical regression models. Classical regression models use either complete pooling data to generate effects (as when no district or state effects are taken into account) or no pooling (as when models include fixed effects for a respondent's state or district). Multilevel regression models allow for data to be partially pooled to a degree dictated by the data, based upon group sample size and variation. These models thus allow for the effects of demographics to vary by geography, while also pulling the estimates for states or districts with limited numbers of observations or high variance toward the mean, and allowing estimates for states and districts with more robust samples and tighter variances to be more influenced by district-specific effects.

MRP generated estimates of public opinion outperform both disaggregated means and presidential vote share measures at the state-,

congressional district-, and state senate district-levels, producing estimates that are more correlated with population means, have smaller errors, and are more reliable (Lax and Phillips, 2009; Warshaw and Rodden, 2012). These differences are even more apparent with the smaller sample sizes (2,500 for congressional districts) common to most national surveys. MRP estimates are also far less subject to bias than disaggregated means. Disaggregating from nationally (rather than district or state) representative samples can result in biased predictions. MRP avoids this pitfall because all estimates are weighted according to the percentage of a state or district that any particular subgroup makes up. Additionally, nonresponse bias is less likely to influence within-group estimates for MRP relative to disaggregation because of the effects of partial pooling (Lax and Phillips, 2009).

Buttice and Highton (2013) find that MRP is most effective as an estimator when higher-level variables (in this case, state or district) are strongly predictive of the concept of interest, and when there is a high level of geographic variation in the quantity being estimated.¹ To ensure the greatest level of validity and reliability in my estimates, I include a number of state- and district-level predictors with a clear theoretical tie to expected levels of warmth or hostility toward the selected disadvantaged groups. I also have a clear expectation that due to geographically driven district heterogeneity and distinct state and district cultures, inter-district variability should be high.

DATA

To model individual responses, I use the ANES aggregated time-series data from 1992 to 2016. This data set is intended to be nationally representative, and has a total of 24,122 observations. Given the sampling technique and relatively small sample size (relative to the CCES or the NAES), MRP is the best estimator for generating unbiased and reliable measures of district opinion. To account for over-time changes in district lines and public opinion, I model each decade separately, with 9,085 observations for the 1990s; 5,006 observations for the 2000s; and 10,031 observations for the 2010s. Feeling thermometer estimates are generated for each group in each of the three decades.

In each of these models, the dependent variable is the group feeling thermometer score. The individual-level predictor variables in each of these

¹ This greater importance of constituency level variables over individual variables is also confirmed in research by Hanretty, Lauderdale, and Vivyan, (2016) investigating British opinion regarding the EU.

models includes a respondent’s gender (two categories: male, female),² race/ethnicity (four categories: white, Black, Hispanic, other), education (five categories: less than high school completion, completed high school, some college, college graduate, graduate school), state, and congressional district. Additionally, district-level predictors (average income, percent urban, percent military, same-sex couples, percent Hispanic, and percent African American) and state-level predictors (region, percent union, and percent Evangelical or Mormon) were obtained using decennial US Census data, as well as data from the US Religion Census. Survey year is also included to account for any variation in context or questions.

MODEL

I generate estimates of district hostility by modeling individual responses as a function of individual-level demographic characteristics as well as district- and state-level predictors. I model this as a multilevel linear regression equation, using the lmer package in R.³ The structure of the model estimating individual feelings toward the poor is given by the following:

$$\begin{aligned}
 y_i^{ft\ poor} &= \gamma_0 + \alpha_{r[i]}^{race} + \alpha_{f[i]}^{female} + \alpha_{e[i]}^{educ} + \alpha_{y[i]}^{year} + \alpha_{d[i]}^{district} \\
 \alpha_r^{race} &\sim N(0, \sigma_r^2), \text{ for } r = 1, 2, 3, 4 \\
 \alpha_f^{female} &\sim N(0, \sigma_f^2) \\
 \alpha_e^{educ} &\sim N(0, \sigma_e^2), \text{ for } e = 1, 2, 3, 4, 5 \\
 \alpha_p^{year} &\sim N(0, \sigma_y^2), \text{ for } p = 1, 2
 \end{aligned}
 \tag{1}$$

The random effects across each level of these individual predictors (e.g., all five categories of education) are modeled.⁴ These effects are expected to be normally distributed with a mean of 0, and a variance determined by the data. Both the district- and state-levels model random effects for each district and state (respectively) in the dataset as well as fixed effects for the other relevant predictors, while random effects are modeled for each of the four region categories:⁵

² While gender is not a strictly binary concept, data restrictions require it to be treated as such for the purposes of this project.

³ The framework for the code sequences used comes from the study replication file for Warshaw and Rodden (2012).

⁴ Because gender is coded as a dichotomous dummy variable for whether or not a respondent identifies as female, only fixed effects are modeled.

⁵ District-level effects are modeled for all district ambient temperature estimates, but are not included for state ambient temperature estimates.

$$\alpha_d^{district} \sim N(k_{s[d]}^{state} + \gamma^{inc} * income_d + \gamma^{urban} * urban_d + \gamma^{mil} * military_d + \gamma^{hisp} * hispanic_d + \gamma^{black} * black_d, \sigma_{district}^2), \text{ for } d = 1, \dots, 435$$

$$\alpha_s^{state} \sim N(\alpha_{z[s]}^{region} + \beta^{union} * union_s + \beta^{relig} * religion_s, \sigma_{state}^2), \text{ for } s = 1, \dots, 50$$

$$\alpha_z^{region} \sim N(0, \sigma_{region}^2), \text{ for } z = 1, 2, 3, 4$$

POSTSTRATIFICATION

This model is then used to generate district hostility estimates for the average member of each of 17,400 subgroups. Each of these subgroups represents a unique combination of demographic categories by which the sample is weighted: race (4), gender (2),⁶ education (5), and congressional district (435).⁷ Once predictions for average feeling thermometer scores are generated for each of these subgroups (from white men with less than a high school education in the first district of Alabama to non-white, Black, or Hispanic women with a graduate education in the large district of Wyoming), these estimates are then weighted according to the proportion of a district that is composed of members of these subgroups, and summed across districts.

Formally, weighted district opinion estimates are obtained using this method:

$$y_{district} = \frac{\sum_{c \in d} N_c \theta_c}{\sum_{c \in d} N_c} \quad (2)$$

where c represents each of the forty demographic subcategories (race, gender, and education) within d , a given congressional district, θ_c is the prediction associated with each subcategory, and N_c is the frequency of individuals within a district that belong to a demographic subcategory. To weight my estimates, I use the calculated frequency proportions for each demographic category in each state or district. A summary of the estimates generated is given in Table 4.1, and graphical illustrations of each of the estimates produced are given in Figure 4.1.

⁶ For the 1990 Census, data are not available for gender by race by education by district categories, but only for race by education by district categories, so this poststratification scheme is used for this decade instead. This reduces the total number of poststratification categories to 8,700.

⁷ For the state ambient temperature estimates, the demographic categories used are gender by race by education by state, resulting in a total of 2,000 categories.

APPENDIX D

Generalized Ordered Logit Model Showing Effects of Constituency and Descriptive Representation on Reputations for Women’s Advocacy

Table D-1 displays the models of the effects of group size and ambient temperature on women’s advocacy that were presented in Table 5.6, but with descriptive representation included. These models show that the relationship between the percentage of women in a state and reputation formation seen in Table 5.6 is in fact a spurious correlation that is better explained by whether or not a state’s senator is a woman.

TABLE D-1 *Group size, ambient temperature, descriptive representation, and member reputation for advocacy for women*

	Women					
	0	1	0	1	0	1
Group Size	0.256 0.34	-0.173 0.74			0.261 0.33	-0.191 0.76
Ambient Temperature			-0.069 0.17	-0.095 0.37	-0.074 0.14	-0.063 0.65
Descriptive Representative	3.551 0.00	3.938 0.00	3.523 0.00	4.196 0.00	3.642 0.00	3.983 0.00
Republican	0.038 0.92	0.124 0.87	0.066 0.87	0.274 0.72	0.088 0.82	0.176 0.84
Dem Pres Vote	0.032 0.26	0.108 0.01	0.044 0.10	0.102 0.04	0.034 0.23	0.112 0.01
South	-0.847 0.05	0.738 0.36	-0.591 0.13	0.637 0.44	-0.812 0.06	0.806 0.32
1990s	2.045 0.00	1.494 0.06	2.100 0.00	1.264 0.06	1.978 0.00	1.451 0.09
2000s	0.450 0.28	-0.098 0.87	0.755 0.09	0.046 0.93	0.676 0.13	0.136 0.80
First Term	-1.531 0.00		-1.501 0.00		-1.524 0.00	
Constant	-18.131 0.18	-2.186 0.93	-2.177 0.49	-5.471 0.24	-14.549 0.30	1.940 0.94

(continued)

TABLE D-1 (continued)

	Women			
	0	1	0	1
<i>N</i>	500		500	500
Wald's Chi ²	80.0		64.7	84.0
Pseudo-R ²	0.2875		0.2857	0.2908

Note: Coefficients calculated using generalized ordered logit, with First Term modeled as a parallel proportional term and all others as partial proportional terms. Standard errors are clustered by member, and p-values are in gray. Model 0 represents the likelihood of a shift from no advocacy to superficial or primary/secondary advocacy, and Model 1 is no advocacy or superficial advocacy to primary/secondary advocacy.

APPENDIX E

Effects of the Advocacy Environment and Electoral Insecurity on Reputation Formation in the House

Tables E-1 and E-2 display the results for the analysis of the electoral insecurity hypothesis and the collective amplification hypothesis. The effects of the total number of advocates within the House resemble those of the Senate — for nearly all groups, having a greater number of advocates in the House makes it more likely that a member will also make the decision to form a reputation as a group advocate. The effects of electoral insecurity, however, are different in the House than they are in the Senate. While a senator's most recent vote share does not have a significant impact on their representational decision-making, it does have a significant effect in the House, under some circumstances. For groups that are generally considered to be highly deserving of government assistance, like seniors and veterans, a member's electoral security does not change the likelihood that they will choose to serve as a group advocate. But for most groups that are considered to be less deserving of assistance, members with more marginal prior election vote totals are less likely to risk forming a reputation as a group advocate. This demonstrates that while in the Senate, there is no margin at which senators feel comfortable as a disadvantaged group advocate, members of the House of Representatives who hold safer seats are significantly more likely to serve as a group advocate, even for groups that are not considered highly deserving of government assistance.

TABLE E-1 Institutional and electoral effects on member reputation for advocacy for veterans, seniors, racial/ethnic minorities, and the LGBTQ community in the House of Representatives (1993–2014)

	Veterans			Seniors			LGBTQ			Race/Ethnicity			
	0	1	2	0	1	2	0	1	2	0	1	2	
	logit			logit			logit			logit			
Total	0.027	0.077	0.264	0.025	0.008	-0.009	0.217	0.025	-0.027	0.073	0.025	-0.027	0.073
Advocates	0.45	0.20	0.36	0.00	0.36	0.67	0.06	0.29	0.37	0.13	0.29	0.37	0.13
Previous	-0.005	0.013	-0.010	0.005	-0.010	0.008	0.020	0.024	0.035	0.018	0.024	0.035	0.018
Vote Share	0.52	0.17	0.80	0.45	0.24	0.82	0.18	0.00	0.00	0.24	0.00	0.00	0.24
Group	0.197	0.265	0.417	0.097	0.119	0.091	1.937	0.049	0.061	0.054	0.049	0.061	0.054
Size	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ambient	0.049	0.096	0.013	-0.016	0.086	-0.094	0.040	-0.010	-0.058	-0.044	-0.010	-0.058	-0.044
Temperature	0.10	0.12	0.89	0.66	0.33	0.61	0.20	0.77	0.17	0.56	0.77	0.17	0.56
Republican	-0.468	-0.901	-1.237	-0.814	-1.073	-1.570	-1.308	-1.854	-2.218	-2.890	-1.854	-2.218	-2.890
	0.02	0.02	0.12	0.00	0.00	0.10	0.04	0.00	0.00	0.01	0.00	0.00	0.01
Dem Pres	0.002	0.023	0.034	0.016	-0.005	-0.096	0.054	-0.033	-0.055	-0.034	-0.033	-0.055	-0.034
Vote	0.86	0.27	0.63	0.20	0.79	0.22	0.18	0.07	0.02	0.24	0.07	0.02	0.24
South	0.050	0.306	0.383	0.029	-0.281	-1.667	0.221	-0.073	-0.050	0.340	-0.073	-0.050	0.340
	0.83	0.52	0.59	0.89	0.47	0.20	0.70	0.79	0.88	0.44	0.79	0.88	0.44
1990s	-0.240	1.540	5.640	0.097	-0.607	-1.752	2.471	0.641	1.382	-1.453	0.641	1.382	-1.453
	0.83	0.38	0.44	0.63	0.11	0.03	0.00	0.21	0.03	0.18	0.21	0.03	0.18

(continued)

TABLE E-1 (continued)

	Veterans			Seniors			LGBTQ			Race/Ethnicity		
	0	1	2	0	1	2	0	1	2	0	1	2
2000s	-0.612	-0.265	-0.800				1.159	0.283	1.628	0.283	1.628	-2.667
	0.03	0.61	0.38				0.11	0.73	0.13	0.73	0.13	0.14
First Term		-1.091			-0.805		-1.201		-1.788		-1.788	
		0.00			0.00		0.14		0.00		0.00	
Constant	-8.441	-19.010	-24.111	-4.130	-10.120	7.896	-14.208	-4.201	-0.423	-4.201	-0.423	-4.834
	0.01	0.00	0.11	0.17	0.15	0.61	0.00	0.14	0.89	0.14	0.89	0.33
N		2,175			1,740		2,175		2,175		2,175	
Wald's Chi ²		123.4			163.2		68.7		434.1		434.1	
Pseudo-R ²		0.0742			0.0708		0.1977		0.3185		0.3185	

Note: Coefficients for LGBTQ are estimated using logistic regression, as necessitated by the bivariate coding of the LGBTQ advocacy reputation variable. Coefficients calculated using generalized ordered logistic regression, with First Term modeled as a parallel proportional term and the rest of the independent variables modeled as partial proportional terms. Standard errors are clustered by member, and p-values are in gray. Model 0 represents the likelihood of a shift from no advocacy to superficial, secondary, or primary advocacy; Model 1 is no advocacy or superficial advocacy to primary or secondary advocacy; and Model 2 is any of the lower categories of advocacy to primary advocacy. Feeling thermometer questions for seniors were not included in the ANES of the 2010s, so the decade base category for seniors is the 2000s.

TABLE E-2 Institutional and electoral effects on member reputation for advocacy for immigrants, women, and the poor in the House of Representatives (1993–2014)

	Immigrants			Poor			Women		
	0	1	2	0	1	2	0	1	2
Total	0.067	0.066	-0.158	0.016	0.014	-0.004	0.076	0.096	0.476
Advocates	0.03	0.16	0.37	0.00	0.00	0.64	0.02	0.06	0.01
Previous	0.021	0.006	0.071	0.013	0.020	0.027	0.005	-0.006	0.018
Vote Share	0.06	0.69	0.01	0.03	0.01	0.07	0.43	0.56	0.28
Group	0.119	0.149	0.301	0.060	0.075	0.072	-0.008	-0.103	0.017
Size	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.29	0.95
Ambient	-0.046	-0.008	-0.045	-0.007	0.025	-0.073	0.042	0.040	-0.102
Temperature	0.04	0.83	0.49	0.81	0.58	0.35	0.07	0.13	0.33
Republican	-0.618	-0.394	-4.552	-1.179	-1.830	-2.081	-0.713	-1.291	-2.823
	0.04	0.50	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Dem Pres	-0.079	-0.065	-0.404	0.015	0.003	-0.013	0.057	0.075	0.228
Vote	0.00	0.09	0.03	0.14	0.84	0.74	0.01	0.02	0.01
South	-0.442	-0.522	-4.298	-0.391	-0.966	-0.638	-0.490	-0.964	-0.939
	0.26	0.41	0.01	0.03	0.00	0.37	0.11	0.05	0.48
1990s	0.426	0.460	-0.603	0.079	0.197	-0.595	-0.907	-1.815	-9.635
	0.41	0.54	0.72	0.70	0.48	0.22	0.21	0.10	0.01

(continued)

TABLE E-2 (continued)

	Immigrants			Poor			Women		
	0	1	2	0	1	2	0	1	2
2000s	-0.159	0.049	-1.930	0.037	0.121	-0.112	-0.822	-1.751	-8.018
First Term	0.52	0.89	0.10	0.87	0.70	0.82	0.19	0.06	0.00
Constant	-1.346	-4.928	13.261	-4.088	-7.324	0.150	-9.563	-5.600	-24.731
N	0.48	0.05	0.28	0.06	0.02	0.98	0.00	0.33	0.08
Wald's Chi ²		2,175			2,175			2,175	
Pseudo-R ²		370.2			302.6			176.4	
		0.3121			0.1344			0.1036	

Note: Coefficients calculated using generalized ordered logistic regression, with First Term modeled as a parallel proportional term and the rest of the independent variables modeled as partial proportional terms. Standard errors are clustered by member, and p-values are in gray. Model 0 represents the likelihood of a shift from no advocacy to superficial, secondary, or primary advocacy; Model 1 is no advocacy or superficial advocacy to primary or secondary advocacy; and Model 2 is any of the lower categories of advocacy to primary advocacy.