The 2011 Debt Ceiling Crisis and the 2012 House Elections: A Research Design*

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Abstract

On August 1, 2011, the House of Representatives voted to raise the federal debt ceiling as well as to make cuts in discretionary spending. Although this vote allowed the federal government to avoid default, raising the debt ceiling was unpopular with the public and the vote cut across party lines. This paper proposes a research design for evaluating the effect of a House member's vote on the debt ceiling on two outcomes: the member's ability to retain his or her seat through the 2012 general election, and the incumbent's share of the two-party vote for members who face a general election competitor.

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In the 2012 election, fiscal austerity has served as a central issue. One of the most salient events on this subject from the past congressional term was the August 1, 2011 vote in the House of Representatives to raise the debt ceiling. While votes to raise the debt ceiling traditionally have been uncontroversial, this particular vote garnered extensive press coverage and required compromise from both parties that involved federal spending cuts. Failure to raise the ceiling would have forced the Treasury to default on financial obligations. Despite this, public opinion was against the debt deal enacted in 2011, with 53% opposed to it compared with only 38% in favor.[1]

Perhaps in large degree due to public pressure, the House vote on this measure cut across party lines. Republicans split 174-66 on the bill, while Democrats spit 95-95, allowing the bill to pass with a 296-161 vote. So many members of Congress were willing to vote against a bill so essential to the nation's fiscal health. All of this suggests that the incumbents must have felt a vote against raising the debt ceiling would be electorally advantageous. Therefore, in this project I ask: How did a House member's vote on raising the debt ceiling influence his or her electoral prospects in 2012?

This paper serves to present in brief a research design by which I will assess how incumbents' votes on the debt ceiling influenced their ability to retain their seats and their share of the two-party vote in the general election. By publicly releasing this research design before the outcome of the 2012 election is observed, I follow the advice of Rubin (2006), who makes the case that the design phase of research should be completed with no reference to the outcome variable. In this way, the design efforts cannot "inappropriately slant estimation of the treatment effects on outcomes" (Rubin 2006: 369).

To that end, this research design, including all pre-outcome treatment and covariate measures, is publicly posted at http://hdl.handle.net/1902.1/19170. The study global ID is hdl:1902.1/19170, and the Universal Numeric Fingerprint of these pre-outcome

[1]Accessed from http://www.pollingreport.com on November 4, 2012. Reuters/Ipsos Poll of 1,055 adults, August 4-8, 2011.

data is UNF:5:kJwEJmnuaapEOHnRKwct5Q== V1. The universal numeric fingerprint uniquely identifies these pre-outcome data, such that no other data set could generate the same fingerprint. Further, this document includes a complete list of all matched observations that I will include to assess a treatment effect. In sum, the completion of this analysis after the election ought to offer an honest and accurate assessment of the effect of the debt ceiling vote on the 2012 election.

1 Data and Measurement

In this study, I consider two outcomes of interest. The first is simply whether a member of Congress was able to retain his or her seat through the 2012 elections. In this way, all members who win re-election (whether they faced challengers or not) are considered successful in the end, while all members who do not win re-election (whether they lost in the primary, general election, or retired) have failed. For this outcome, the population of interest is every incumbent member who voted on the debt ceiling. It is possible that how a member voted on this bill shaped late fundraising and the emergence of challengers in a variety of ways that could help or hinder the member's ability to retain his or her seat. Hence, if a congressperson's vote deterred challengers making re-election easier or drew enough opposition to lead the member to retire strategically, this outcome can pick up the effect.[2]

Although the dichotomous indicator of whether a candidate retained office offers a global outcome that is of particular interest, the effect of a policy position is likely to have a more subtle effect. For this reason, as a second outcome variable, I also examine how the treatment influence's the incumbent's share of the two-party vote. In this case, the population of interest is narrowed to incumbents who are in a competitive general

[2]Information about outcomes for members who did not compete in the November 2012 general election is available from the "Roll Call Casualty List: 112th Congress" (http://www.rollcall.com/politics/casualtylist.html, accessed October 29, 2012).

election in 2012. The treatment effect, then, asks not whether a policy stand like this can help an incumbent win in general, but rather how such a stance might shape the marginal vote share when the incumbent does have to face a general election challenger. Together, then, these two outcomes offer the opportunity to assess both the consequences of this controversial vote for the dynamics of a general election as well as whether incumbents can retain office.[3]

1.1 Measuring the Treatment and Covariates

The treatment variable in this case is simply whether a member of Congress voted against raising the debt ceiling on August 1, 2011, with control units having voted in favor of this measure. The treatment is assumed to have been administered at the time of this vote, at which point the incumbent's recorded position on the issue was formally made public. As an issue stance, the recipient of the treatment is the electorate, which ultimately chooses whether to give the incumbent another term and in what proportion to vote for the incumbent.[4]

In modeling the effect of this treatment, it is essential to account for other factors known to explain the vote shares of incumbents. These factors are: incumbent's ideology, district ideology, incumbent's prior vote share, and campaign funding (Abramowitz 2004; Abramowitz and Segal 1992). With the incumbent's ideology, past research shows that ideologically extreme members of Congress have more difficulty winning re-election. Therefore, I match members by their score on the first dimension of DW-NOMINATE for 2011.[5] How much campaign money an incumbent has access to was recorded from

[3]After the election, the official election returns reported by each state's Secretary of State will be used to compute the incumbent's share of the two-party vote.

[4]The official recorded vote is posted at the House Clerk's website (http://clerk.house.gov/evs/2011/roll690.xml, accessed October 16, 2012).

[5]These data were accessed from http://www.voteview.com/HOUSE_SORT112.HTM on October 18, 2012. House Speaker John Boehner is the only sitting member who voted on the debt ceiling bill, yet does not have a NOMINATE score. For this reason, he is omitted from the analysis.

the cash on hand listed in their July 2011 report to the Federal Election Commission.[6] July 2011 marks the last FEC report prior to the vote on raising the debt ceiling, and therefore the best measure of pre-treatment financial standing. Any later measure might reflect easier fundraising in response to the congressperson's vote on the debt ceiling, thereby inducing post-treatment bias.

Finally, two measures of past vote shares are incorporated. The slight wrinkle that emerges here is that many states redrew their electoral maps in 2012 after reapportionment following the 2010 Census. Hence, many members were competing in districts that differed from the ones that elected them in 2010. The best possible measures of past vote shares, though, are based on the members' prior districts. In August 2011, many members did not know what the new electoral maps would look like anyway, so the only information they had at the time of their vote on the debt ceiling was how they performed in 2010 in their old district and how ideologically conservative or liberal their old district was. Therefore, I match members on Obama's share of the two-party presidential vote in 2008 as a measure of ideology in a member's old district as well as the member's share of the two-party congressional vote in 2010.[7]

2 Matching Design

To isolate the treatment effect of a House member's debt ceiling vote on each outcome under consideration, I match treated and control units using coarsened exact matching (Iacus, King and Porro 2012). In this method, continuous covariates are divided into a discrete number of categories and then an exact matching algorithm is applied to this coarsened data. Among the many desirable properties of this estimator is the fact that

[6] http://www.fec.gov/finance/disclosure/candcmte_info.shtml, accessed October 26-28, 2012.

[7] 2010 vote shares in the House elections were gathered from the official returns published by each state's secretary of state. Obama's share of the two-party vote was calculated and prepared by Greg Giroux of CQ Press (report accessed from http://CQPolitics.com on October 26, 2010).

it is a Monotonic Imbalance Bounding matching method, which means that for a given level of coarsening, the degree of covariate imbalance between treated and controlled observations cannot exceed a certain level.

First, I generate a matched sample from the 423 valid observations of incumbents who voted on the debt ceiling.[8] Table 4, in the appendix, provides a full list of the 175 members who are in this matched sample. With the sample from Table 4, I will assess whether members were able to retain their seat beyond the November 2012 election.[9]

Table 1: Covariate Balance for Raw Data and Matched Sample, House Members in the 112th Congress

Raw Data:

Covariate	Mean Diff.	$\mathcal{L}_1$	Min.	25%	50%	75%	Max.
NOMINATE	0.2048	0.1321	0.1740	0.1980	0.7020	-0.0810	-0.2310
Obama vote share	-6.8044	0.0000	-1.0204	0.4432	-9.1837	-12.8427	-5.0000
Incumbent vote share 2010	-1.9670	0.0000	-23.7000	-1.0000	-2.4000	-3.1000	0.0000
Cash in July 2011 (log)	0.4037	0.1819	3.0479	0.4323	0.3861	0.3495	0.1740

N=423. 159 treated, 264 control. Multivariate imbalance: $\mathcal{L}_1 = 0.893$. Local common support: 7.1%.

Matched Sample:

Covariate	Mean Diff.	$\mathcal{L}_1$	Min.	25%	50%	75%	Max.
NOMINATE	-0.0132	0.0405	-0.1190	-0.0390	-0.0070	-0.0140	0.0450
Obama vote share 2008	-0.2130	0.0000	-2.7623	-0.0312	-0.4123	-1.0204	3.1212
Incumbent vote share 2010	0.1217	0.0000	0.8000	0.4000	2.0000	-1.8000	0.0000
Cash in July 2011 (log)	-0.0547	0.1410	0.2630	0.0060	-0.1739	-0.1208	-0.1374

N=175. 74 treated, 101 control. Multivariate imbalance: $\mathcal{L}_1 = 0.828$. Local common support: 9.9%.
Note: Imbalance estimates computed using the `cem` library in R 2.15.1.

The matched sample from the full 112th Congress shows better covariate balance than the raw data consisting of all members. Table 1 makes this comparison. In the top portion of the table, the empirical distribution for each covariate is compared for

[8]Three members did not vote on this bill, two seats were vacant at the time of the vote, one member (Boehner) is omitted due to insufficient data for a NOMINATE score, and six members subsequently resigned office. The resigning members are classified as "involuntary departures" following the distinction made by Cox and Katz (2002). These members are omitted from analysis as non-electoral forces pushed them out of office.

[9]For both outcomes—retaining a seat and share of the two-party vote—I will assess the causal effect by calculating the local sample average treatment effect on the treated (Iacus, King and Porro 2012: 3).

treated and controlled units for the raw data. The first column shows the difference of means. The second shows $\mathcal{L}_1$ calculated for each covariate, which is an imbalance measure developed in Iacus, King and Porro 2011. With this measure, a value of 1 indicates complete separation on the covariate, while a value of 0 indicates complete balance. The remaining columns show the difference in empirical quantiles between the treated and control units, the minimum, 25th percentile, median, 75th percentile, and maximum. By comparing the top portion of the table (focusing on the raw data) to the bottom portion that considers the matched sample, one can see that every covariate has better balance with the matched units. The absolute value of the mean differences are smaller, as are the absolute values of the differences in empirical quantiles. Further, $\mathcal{L}_1$ is closer to 0 for every covariate in the matched sample, which indicates better balance between the treatment and control observations across the distribution.

Table 1 also assesses the joint multivariate imbalance between the treatment and control observations. In particular, $\mathcal{L}_1$ is computed for the multivariate distribution, again with values of 1 indicating perfect separation and 0 indicating perfect balance. $\mathcal{L}_1$ drops from .893 to .828 moving from the raw data to the matched sample. Further, the local common support is the percentage of non empty cells in the multivariate histogram that contains at least one control and one treated observation. This percentage rises from 7.1% to 9.9%. Therefore, the multivariate imbalance has improved somewhat, in addition to the marked improvement in the balance of individual covariates. Therefore, this matched sample ought to do a better job of assessing the causal effect of the debt ceiling vote on House members' ability to retain their jobs than the raw data could have done.

Moving on to the second outcome of interest, I generate a second matched sample from the 329 members of the House of Representatives who competed in the 2012 general election against a challenger from the other major party. Table 5, in the appendix,

presents a complete list of the 129 members included in this second matched sample. With the sample from Table 5, I will assess the impact that the debt ceiling vote had on the incumbent's share of the two-party vote when facing a competitive election.

Table 2: Covariate Balance for Raw Data and Matched Sample, House Incumbents in Competitive 2012 Elections

Raw Data:

Covariate	Mean Diff.	$\mathcal{L}_1$	Min.	25%	50%	75%	Max.
NOMINATE	-0.2083	0.0811	-0.1470	-0.1820	-0.6890	0.0580	0.1570
Obama vote share 2008	5.8799	0.0000	1.0204	0.4535	8.0704	13.4242	5.0000
Incumbent vote share 2010	1.8642	0.0000	23.7000	0.8000	1.9000	2.5000	0.0000
Cash in July 2011 (log)	-0.3676	0.2013	-3.0479	-0.2279	-0.3848	-0.3166	-0.1740

N=329. 111 treated, 218 control. Multivariate imbalance: $\mathcal{L}_1 = 0.822$. Local common support: 12.5%.

Matched Sample:

Covariate	Mean Diff.	$\mathcal{L}_1$	Min.	25%	50%	75%	Max.
NOMINATE	-0.0231	0.0000	-0.0340	-0.0640	-0.0060	-0.0270	0.0450
Obama vote share 2008	-0.2095	0.0000	0.0000	-0.5257	1.4430	-2.3913	1.0101
Incumbent vote share 2010	0.1464	0.0000	0.8000	0.1000	0.6000	-2.2000	0.0000
Cash in July 2011 (log)	-0.0155	0.2487	0.2041	0.1417	-0.1739	-0.0630	0.0389

N=129. 53 treated, 76 control. Multivariate imbalance: $\mathcal{L}_1 = 0.772$. Local common support: 14.3%.
Note: Imbalance estimates computed using the `cem` library in R 2.15.1.

Table 2 shows how the matched sample shows better covariate balance between treatment and control observations than the raw sample. Again, comparing the top of the table to the bottom, we see that the absolute value of the differences in empirical means and percentiles is smaller for the matched sample in nearly every case. Further, for three of the four covariates, $\mathcal{L}_1$ is smaller for the matched sample than the raw data. The only deviations from this trend in the matched sample are a larger first quartile difference for Obama's vote share and a larger value of $\mathcal{L}_1$ for cash on hand in July 2011. On the whole, though, balance seems much improved for individual covariates. Further, the multivariate balance improves noticeably with a drop in $\mathcal{L}_1$ from .822 for the raw data to .772 for the matched sample. The local common support also rises from 12.5% to 14.3%. Overall,

then, the matched sample is in a better position to assess the causal effect of the debt ceiling vote on the incumbent's share of the two-party vote for competitive elections.

3 Observations on Intermediary Outcomes

With these two matched samples in hand, this design is poised to assess the causal effects on the outcomes of interest. It is of note, though, that one population of interest (incumbents being challenged in a general election) is a subset of the other (all members of the 112th Congress). The fact that so many events could happen that might prevent someone from the larger population from entering the second group of those in a competitive election also calls for an understanding of intermediary outcomes. In particular, a member of Congress may be unopposed in the general election, lose in his or her primary, retire, or decide to seek a higher office. Under any of these circumstances, we would not observe the incumbent standing for re-election against an opponent from the opposing party.

To get a sense of what happened between the debt ceiling vote and the upcoming general election, Table 3 presents a multinomial probit model of the various intermediate events that may happen to a member of Congress. In this model, the reference category is for an incumbent to advance to a general election against a challenger. This reference group is compared with the four other alternatives of advancing to a general election without facing a challenger, losing in the primary, retiring, or seeking higher office. For each of the four alternatives listed in the table, a unique set of coefficients is presented illustrating how a covariate influences the probability of the event relative to the baseline of a competitive general election. Each row is a posterior summary, giving the mean, standard deviation, and 95% credible interval from MCMC estimates of the parameter.

A few results stand out in particular. First, there is a robust effect for the incumbent's 2010 vote share in all four equations. Incumbents who performed better in the previous

election were less likely to lose their primary, retire, or seek higher office relative to standing in a competitive election. They were more likely, though, to advance to a general election without a competitor from the other major party. Second, more ideologically extreme members are more likely to compete in an uncontested general election than a contested on. This is potentially the consequence of ideologically extreme districts where such voting behavior is rewarded and the opposing party cannot compete. Finally, a vote against the debt ceiling raises the probability of standing in an uncontested election relative to a competitive general election, suggesting that in certain districts distinct issue positions such as this can be electorally beneficial.

4 Future Plans

The descriptive picture painted by the study of intermediary outcomes implies that members of Congress potentially are able to leverage electoral gain from position-taking on the debt ceiling issue. Therefore, a fuller assessment of the treatment effect this issue has on House members' electoral fortunes is warranted. Having committed to matched samples to assess how this policy vote shaped seat retention and two-party vote shares, this research design offers an honest clear path to estimating the impact of this issue.

Table 3: Model of Intermediate Outcomes for Incumbent House Members in the 2012 Elections (Multinomial Probit Estimates)

Parameter	Mean	Std. Dev.	[95% Cred. Int.]	
Uncontested General Election				
Intercept	-4.9196	3.9076	[-11.5730,	-0.3889]
Ideological extremity	1.8184	1.5537	[0.1208,	4.6556]
Incumbent vote share 2010	0.0208	0.0170	[0.0015,	0.0497]
Obama vote share 2008	0.0050	0.0059	[-0.0026,	0.0189]
Cash in July 2011 (log)	0.0076	0.0542	[-0.1196,	0.1284]
Voted against debt ceiling	0.4145	0.3352	[0.0363,	1.0631]
Lost Primary				
Intercept	0.1171	0.3941	[-0.3446,	0.6955]
Ideological extremity	-0.1024	0.1556	[-0.4273,	0.0504]
Incumbent vote share 2010	-0.0021	0.0024	[-0.0067,	-0.0000]
Obama vote share 2008	0.0002	0.0018	[-0.0023,	0.0025]
Cash in July 2011 (log)	-0.0037	0.0204	[-0.0374,	0.0252]
Voted against debt ceiling	-0.0162	0.0421	[-0.1016,	0.0498]
Retired				
Intercept	0.4651	0.8503	[-1.0583,	2.3982]
Ideological extremity	-0.3474	0.4609	[-1.4501,	0.1028]
Incumbent vote share 2010	-0.0072	0.0074	[-0.0223,	-0.0002]
Obama vote share 2008	0.0015	0.0034	[-0.0041,	0.0103]
Cash in July 2011 (log)	-0.0178	0.0446	[-0.1272,	0.0637]
Voted against debt ceiling	-0.0516	0.1307	[-0.3445,	0.2088]
Sought Higher Office				
Intercept	-0.2728	2.2854	[-6.5278,	3.5669]
Ideological extremity	0.6112	1.5612	[-1.6591,	4.7284]
Incumbent vote share 2010	-0.0255	0.0210	[-0.0746,	-0.0022]
Obama vote share 2008	0.0065	0.0114	[-0.0125,	0.0334]
Cash in July 2011 (log)	-0.0244	0.1104	[-0.2729,	0.2195]
Voted against debt ceiling	0.0564	0.3836	[-0.5868,	1.0527]

Notes: The outcome variable is a five-category nominal variable for the eventual outcome for an incumbent member of the House. The reference group is that the member went on to compete in a contested general election. The table presents coefficient estimates for each of the other four possible outcomes relative to the reference of a general election. The model is estimated using the technique developed by Imai and van Dyk (2005). Estimation was completed using 5000 MCMC draws, posterior summaries are presented. Estimates were computed using the `MNP` package in R 2.15.1.

Appendix: Complete Lists of Matches for 2012 Study

Table 4: Matched Observations from All Members of the 112th Congress Who Voted on Raising the Debt Ceiling

Incumbent	State	Dist.	No	Incumbent	State	Dist.	No	Incumbent	State	Dist.	No
Martha Roby	AL	2	1	Peter J. Visclosky	IN	1	1	Paul Tonko	NY	21	1
Mo Brooks	AL	5	1	Todd Rokita	IN	4	1	Brian Higgins	NY	27	0
Terri Sewell	AL	7	0	Dan Burton	IN	5	1	Louise M. Slaughter	NY	28	1
Paul Gosar	AZ	1	0	Larry Bucshon	IN	8	0	G. K. Butterfield	NC	1	1
Steve Womack	AR	3	0	Todd Young	IN	9	0	Walter B. Jones	NC	3	1
Mike Thompson	CA	1	0	Bruce Braley	IA	1	1	David E. Price	NC	4	1
Wally Herger	CA	2	0	Dave Loebsack	IA	2	1	Mike McIntyre	NC	7	1
Dan Lungren	CA	3	0	Leonard L. Boswell	IA	3	1	Larry Kissell	NC	8	1
George Miller	CA	7	1	Tom Latham	IA	4	1	Sue Myrick	NC	9	0
John Garamendi	CA	10	0	Lynn Jenkins	KS	2	0	Brad Miller	NC	13	1
Jerry McNerney	CA	11	1	Kevin Yoder	KS	3	1	Michael R. Turner	OH	3	1
Jackie Speier	CA	12	0	John Yarmuth	KY	3	1	Robert E. Latta	OH	5	0
Pete Stark	CA	13	1	Steve Scalise	LA	1	1	Bill Johnson	OH	6	0
Anna G. Eshoo	CA	14	0	John Fleming	LA	4	1	Marcy Kaptur	OH	9	1
Sam Farr	CA	17	1	Michael H. Michaud	ME	2	0	Betty Sutton	OH	13	1
Jeffrey Denham	CA	19	0	Andy Harris	MD	1	1	Jim Renacci	OH	16	0
Jim Costa	CA	20	0	John Sarbanes	MD	3	1	Tim Ryan	OH	17	1
Devin Nunes	CA	21	1	Steny H. Hoyer	MD	5	0	Bob Gibbs	OH	18	0
Kevin McCarthy	CA	22	0	Roscoe G. Bartlett	MD	6	0	Earl Blumenauer	OR	3	1
Lois Capps	CA	23	0	Richard E. Neal	MA	2	1	Peter A. DeFazio	OR	4	1
Elton Gallegly	CA	24	0	Barney Frank	MA	4	1	Bill Shuster	PA	9	0
Brad Sherman	CA	27	0	Niki Tsongas	MA	5	0	Tom Marino	PA	10	0
Howard L. Berman	CA	28	0	Edward J. Markey	MA	7	1	Allyson Y. Schwartz	PA	13	0
Adam B. Schiff	CA	29	0	Bill Keating	MA	10	0	Joe Pitts	PA	16	0
Janice Hahn	CA	36	1	Tim Walberg	MI	7	0	Tim Holden	PA	17	0
Laura Richardson	CA	37	1	Mike Rogers	MI	8	0	David Cicilline	RI	1	0
Grace F. Napolitano	CA	38	1	Gary Peters	MI	9	1	Tim Scott	SC	1	1
Linda T. Sanchez	CA	39	1	Candice S. Miller	MI	10	0	James E. Clyburn	SC	6	0
Loretta Sanchez	CA	47	0	Sander M. Levin	MI	12	0	Phil Roe	TN	1	0
Brian P. Bilbray	CA	50	0	Tim Walz	MN	1	0	Stephen Fincher	TN	8	0
Susan A. Davis	CA	53	0	John Kline	MN	2	0	Ted Poe	TX	2	1
Jared Polis	CO	2	0	Erik Paulsen	MN	3	0	Sam Johnson	TX	3	0
Scott Tipton	CO	3	1	Betty McCollum	MN	4	1	Ralph M. Hall	TX	4	1
Cory Gardner	CO	4	0	Alan Nunnelee	MS	1	0	Al Green	TX	9	1
John B. Larson	CT	1	1	Bennie Thompson	MS	2	1	Kay Granger	TX	12	0
Joe Courtney	CT	2	0	Steven Palazzo	MS	4	0	Silvestre Reyes	TX	16	1
Rosa DeLauro	CT	3	1	Russ Carnahan	MO	3	0	Sheila Jackson-Lee	TX	18	0
John Carney	DE	1	0	Vicky Hartzler	MO	4	1	Charlie Gonzalez	TX	20	1
Cliff Stearns	FL	6	1	Emanuel Cleaver II	MO	5	1	Pete Olson	TX	22	0
Daniel Webster	FL	8	0	Sam Graves	MO	6	0	Francisco Canseco	TX	23	0
Gus Bilirakis	FL	9	0	Jo Ann Emerson	MO	8	0	Lloyd Doggett	TX	25	0
C. W. Bill Young	FL	10	0	Denny Rehberg	MT	1	1	Peter Welch	VT	1	1
Kathy Castor	FL	11	0	Lee Terry	NE	2	0	Robert J. Wittman	VA	1	0
Dennis Ross	FL	12	1	Adrian Smith	NE	3	0	Scott Rigell	VA	2	0
Vern Buchanan	FL	13	0	Frank Guinta	NH	1	0	J. Randy Forbes	VA	4	1
Connie Mack	FL	14	1	Robert E. Andrews	NJ	1	0	Robert Hurt	VA	5	0
Bill Posey	FL	15	1	Frank Pallone	NJ	6	1	Robert W. Goodlatte	VA	6	0
Tom Rooney	FL	16	0	Leonard Lance	NJ	7	0	Morgan Griffith	VA	9	1
Frederica Wilson	FL	17	0	Bill Pascrell Jr.	NJ	8	0	Frank R. Wolf	VA	10	0
Ileana Ros-Lehtinen	FL	18	0	Rush Holt	NJ	12	1	Gerald E. Connolly	VA	11	0
Ted Deutch	FL	19	0	Albio Sires	NJ	13	0	Rick Larsen	WA	2	0
Debbie Wasserman Schultz	FL	20	0	Martin Heinrich	NM	1	0	Doc Hastings	WA	4	0
Sandra Adams	FL	24	0	Steve Pearce	NM	2	1	Cathy McMorris Rodgers	WA	5	0
Hank Johnson	GA	4	0	Ben Ray Lujan	NM	3	1	Adam Smith	WA	9	1
Mazie K. Hirono	HI	2	0	Gary L. Ackerman	NY	5	1	F. James Sensenbrenner	WI	5	0
Mike Simpson	ID	2	0	Edolphus Towns	NY	10	1	Tom Petri	WI	6	0
Jan Schakowsky	IL	9	1	Carolyn B. Maloney	NY	14	1	Reid Ribble	WI	8	0
Timothy V. Johnson	IL	15	1	Eliot L. Engel	NY	17	1				
Aaron Schock	IL	18	0	Nita M. Lowey	NY	18	0				

Notes: Incumbents are listed by their district number for the 112th Congress, rather than their new district for the 2012 election. The treatment variable is whether the incumbent voted against raising the debt ceiling. A coding of 1 under "no" indicates a vote against, while a 0 indicates a vote for raising the debt ceiling. 175 matched observations consist of 74 units with the treatment (a "no" vote) and 101 control units ("yea" votes) Matches were found through coarsened exact matching, applied using the `cem` package in R 2.15.1.

Table 5: Matched Observations for Members of the 112th Congress Who Voted on Raising the Debt Ceiling and Competed in the 2012 General Election against a Challenger of the Other Major Party

Incumbent	State	Dist.	No	Incumbent	State	Dist.	No	Incumbent	State	Dist.	No
Martha Roby	AL	2	1	Bobby Schilling	IL	17	0	Paul Tonko	NY	21	1
Mo Brooks	AL	5	1	Aaron Schock	IL	18	0	Brian Higgins	NY	27	0
Terri Sewell	AL	7	0	Peter J. Visclosky	IN	1	1	Louise M. Slaughter	NY	28	1
Paul Gosar	AZ	1	0	Todd Rokita	IN	4	1	G. K. Butterfield	NC	1	1
David Schweikert	AZ	5	1	Larry Bucshon	IN	8	0	Renee Ellmers	NC	2	0
Rick Crawford	AR	1	0	Todd Young	IN	9	0	Walter B. Jones	NC	3	1
Mike Thompson	CA	1	0	Bruce Braley	IA	1	1	David E. Price	NC	4	1
Dan Lungren	CA	3	0	Dave Loebsack	IA	2	1	Mike McIntyre	NC	7	1
John Garamendi	CA	10	0	Leonard L. Boswell	IA	3	1	Michael R. Turner	OH	3	1
Jerry McNerney	CA	11	1	Tom Latham	IA	4	1	Bill Johnson	OH	6	0
Jackie Speier	CA	12	0	Steve King	IA	5	1	Marcy Kaptur	OH	9	1
Anna G. Eshoo	CA	14	0	John Yarmuth	KY	3	1	Betty Sutton	OH	13	1
Sam Farr	CA	17	1	Michael H. Michaud	ME	2	0	Jim Renacci	OH	16	0
Jeffrey Denham	CA	19	0	John Sarbanes	MD	3	1	Tim Ryan	OH	17	1
Jim Costa	CA	20	0	Steny H. Hoyer	MD	5	0	James Lankford	OK	5	0
Devin Nunes	CA	21	1	Niki Tsongas	MA	5	0	Earl Blumenauer	OR	3	1
Lois Capps	CA	23	0	Edward J. Markey	MA	7	1	Peter A. DeFazio	OR	4	1
Adam B. Schiff	CA	29	0	Bill Keating	MA	10	0	Tom Marino	PA	10	0
Grace F. Napolitano	CA	38	1	Tim Walberg	MI	7	0	Allyson Y. Schwartz	PA	13	0
Loretta Sanchez	CA	47	0	Candice S. Miller	MI	10	0	Joe Pitts	PA	16	0
Brian P. Bilbray	CA	50	0	Sander M. Levin	MI	12	0	David Cicilline	RI	1	0
Susan A. Davis	CA	53	0	Tim Walz	MN	1	0	Tim Scott	SC	1	1
Jared Polis	CO	2	0	John Kline	MN	2	0	Ralph M. Hall	TX	4	1
Scott Tipton	CO	3	1	Betty McCollum	MN	4	1	Al Green	TX	9	1
Cory Gardner	CO	4	0	Chip Cravaack	MN	8	1	Sheila Jackson-Lee	TX	18	0
John B. Larson	CT	1	1	Alan Nunnelee	MS	1	0	Francisco Canseco	TX	23	0
Joe Courtney	CT	2	0	Bennie Thompson	MS	2	1	Lloyd Doggett	TX	25	0
Rosa DeLauro	CT	3	1	Steven Palazzo	MS	4	0	Blake Farenthold	TX	27	0
John Carney	DE	1	0	Emanuel Cleaver II	MO	5	1	Pete Sessions	TX	32	0
Daniel Webster	FL	8	0	Jo Ann Emerson	MO	8	0	Peter Welch	VT	1	1
Gus Bilirakis	FL	9	0	Lee Terry	NE	2	0	Scott Rigell	VA	2	0
Kathy Castor	FL	11	0	Adrian Smith	NE	3	0	J. Randy Forbes	VA	4	1
Vern Buchanan	FL	13	0	Frank Guinta	NH	1	0	Robert Hurt	VA	5	0
Bill Posey	FL	15	1	Scott Garrett	NJ	5	1	Robert W. Goodlatte	VA	6	0
Tom Rooney	FL	16	0	Frank Pallone	NJ	6	1	Morgan Griffith	VA	9	1
Ileana Ros-Lehtinen	FL	18	0	Bill Pascrell Jr.	NJ	8	0	Gerald E. Connolly	VA	11	0
Debbie Wasserman Schultz	FL	20	0	Rush Holt	NJ	12	1	Rick Larsen	WA	2	0
Tom Price	GA	6	0	Albio Sires	NJ	13	0	Jaime Herrera Beutler	WA	3	0
Phil Gingrey	GA	11	1	Steve Pearce	NM	2	1	Cathy McMorris Rodgers	WA	5	0
John Barrow	GA	12	0	Ben Ray Lujan	NM	3	1	Adam Smith	WA	9	1
Mike Simpson	ID	2	0	Carolyn B. Maloney	NY	14	1	F. James Sensenbrenner	WI	5	0
Mike Quigley	IL	5	0	Eliot L. Engel	NY	17	1	Tom Petri	WI	6	0
Randy Hultgren	IL	14	1	Nita M. Lowey	NY	18	0	Reid Ribble	WI	8	0

Notes: Incumbents are listed by their district number for the 112th Congress, rather than their new district for the 2012 election. The treatment variable is whether the incumbent voted against raising the debt ceiling. A coding of 1 under "no" indicates a vote against, while a 0 indicates a vote for raising the debt ceiling. 129 matched observations consist of 53 units with the treatment (a "no" vote) and 76 control units ("yea" votes) Matches were found through coarsened exact matching, applied using the `cem` package in R 2.15.1.

References

Abramowitz, Alan I. 2004. *Voice of the People: Elections and Voting in the United States*. New York: McGraw-Hill.

Abramowitz, Alan I. and Jeffrey A. Segal. 1992. *Senate Elections*. Ann Arbor, MI: University of Michigan Press.

Cox, Gary W. and Jonathan N. Katz. 2002. *Elbridge Gerry's Salamander: The Electoral Consequences of the Reapportionment Revolution*. New York: Cambridge University Press.

Iacus, Stefano M., Gary King and Giuseppe Porro. 2011. "Multivariate Matching Methods That Are Monotonic Imbalance Bounding." *Journal of the American Statistical Association* 106:345–361.

Iacus, Stefano M., Gary King and Giuseppe Porro. 2012. "Causal Inference without Balance Checking: Coarsened Exact Matching." *Political Analysis* 20:1–24.

Imai, Kosuke and David A. van Dyk. 2005. "A Bayesian Analysis of the Multinomial Probit Model Using Marginal Data Augmentation." *Journal of Econometrics* 124:311–334.

Rubin, Donald B. 2006. *Matched Sampling for Causal Effects*. New York: Cambridge University Press.