

## **Experiments in Election Reform: Voter Perceptions of Campaigns Under Preferential and Plurality Voting**

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### *Introduction*

While preferential voting, instant run-off voting or ranked choice voting (RCV) that allows voters to rank candidates from most to least preferred has been widely studied cross-nationally, there are fewer opportunities to study RCV in the United States because it is less widely used. Bowler, Donovan and Brockington (2003) provide an exception, exploiting local use of preferential voting systems to offer empirical tests of the beneficial effects of these election rules on political participation and attitudes in the American states. This study draws on an experimental design and a unique random sample telephone survey of likely voters in local elections conducted post election (November 2013) in 9 municipalities to provide an empirical assessment of the effects of RCV on perceptions of campaign cooperation and civility. Using local elections to expand experiments in election reform (Cain, Donovan and Tolbert 2008), the research provides one of the first systematic studies of the effects of RCV elections across jurisdictions in the United States. By allowing voters to rank candidates in order of choice, RCV elections reward candidates who are able to secure first choice support, but also earn the lower choice rankings of backers of others candidates. The primary question addressed is whether use of ranked choice voting reduces perceptions of negativity in political campaigns.

American politics and governance has reached a disturbing level of dysfunctionality in Washington D.C and in many states with party polarization at a 100 year high in Congress. The

major parties have become increasingly rigid in their approach to policymaking, despite an American governing system structured to require compromise. Competitive political campaigns are dominated by negative attack ads that exploit differences rather than promote common ground (Ansolabehere and Iyengar 1997). Plurality, winner take all, voting rules give all representation to the candidate finishing first, thereby suppressing candidates with alternative views and approaches, including third party and independent candidates. Winner take all voting rules reward the candidate with the most votes, regardless of whether the win is a majority or only a plurality vote. More than one third of US presidents since the Civil War have been elected with a plurality, but not a majority (50% +1), of the votes cast (Donovan and Bowler 2003). This means that a majority of Americans often lose in elections when we sum total votes cast for losing political candidates (major and minor party parties). Another consequence of plurality winner take all voting rules is that competitive elections are nearly always two-choice, “zero-sum” elections in which negative attack ads highlight differences rather than affirmative messages about policies that might highlight commonalities. High campaign spending either directly or through “independent” entities promotes negative attack ads (Geer 2008).

Election reform may be necessary to foster compromise and bi-partisan compromise. There is reason to believe that ranked choice voting (RCV)—where voters rank candidates from most preferred to least preferred (usually their top three) —may increase civility and cooperation in political campaigns as candidates work together to create coalitions and campaign for second or even third choice votes. This study seeks to answer two overarching questions. First, do RCV elections lead to more cooperation and civility among political candidates than non-RCV elections? Second, is conflict and negative campaigning more prevalent in non-RCV elections than RCV elections?

In order to isolate the effects of RCV elections on campaigns and political attitudes, we compare perceptions of campaigns in similar cities with and without RCV. The presence of RCV is considered the treatment, while cities without RCV represent the control group. The analysis is designed to isolate any differences in responses to the survey questions or election outcomes between the treatment and control cities based on the presence or absence of RCV elections. The research draws on a unique random sample 2013 post election telephone survey of 2400 respondents conducted by the Eagleton Poll (Rutgers University) using cell and landline phone numbers. The survey was designed to sample likely voters in local elections (using voter rolls from recent past elections) in three jurisdictions with RCV elections and six jurisdictions without RCV elections. Control cities were matched to the RCV cities based on characteristics of the election (partisan/non-partisan, off-year/congressional, open seat/incumbent, political office, mayoral/city council race) as well as city size, demographics, socioeconomic conditions, region and political attributes.

The treatment survey samples likely voters living in three cities holding RCV elections and the control survey samples likely voters from the control group of cities without RCV elections. A 1,200-person sample of respondents with November 2013 RCV elections includes respondents from Minneapolis (MN), St. Paul (MN) and Cambridge (MA) [treatment cities]. A second election survey of 1,200 respondents includes a control group of six similar size cities holding off-year, open seat elections without RCV, including Boston, MA, Seattle, WA, Des Moines, IA, Cedar Rapids, IA, Tulsa, OK, Lowell, MA and Worcester, MA [control cities]. Respondents from Minneapolis were oversampled, given the competitive mayoral race there. The two samples were combined to create one 2400 person sample, with a binary indicator variable measuring the treatment—whether the respondent resided in a city with RCV

elections—compared to the control, a city with plurality elections. Holding citywide and individual level other factors constant were respondents from RCV cities exposed to different, less negative, election campaigns?

This experimental design imbedded into the voter surveys is intended to aid in isolating any effects of election rules (presence or absence of RCV elections) when comparing respondents from treatment and control cities. This rigorous empirical design provides significant advantages in causal inference, leveraging information gained from the control group. Additionally, the statistical models are estimated using multivariate regression to control for factors that may shape variation in political attitudes at the individual level. Despite the advanced statistical methods underlying the study, the results are reported with simple to understand numbers, graphs and tables that can be read like percentages, but are based on more complex analysis (statistical simulations).

Survey questions designed by the authors measure perceptions of the local campaigns, including exposure to negative/positive campaign ads, perceptions of candidate civility and cooperation, satisfaction with candidate campaigns, satisfaction with the choice of candidates, campaign information and interest in the campaigns, etc. for respondents residing in cities with two different types of election systems. Control variables include standard demographic factors associated with increased participation in elections, as well as political interest, self identified partisanship, and electoral winner status, measured by whether the individual voted for candidates that were elected mayor or to the city council. Additional control variables include political mobilization and satisfaction with local government. Holding other factors constant, we assess whether there are differences in the campaigns that can be attributed to the use of RCV.

## *RCV Elections*

RCV has promise in electoral reform. It accommodates having more than two candidates in general elections and may create incentives for candidates to be more civil and to reach out to more voters, including backers of other candidates. The addition of candidates could include third party and independent candidates, but also could include potential variations of the top two primary system that would allow more than two candidates to advance to the general election, including regularly advancing more than one candidate of the same party. For these reasons, a growing number of policymakers, reformers and scholars are suggesting that forms of ranked choice voting be structured into American elections.

Used for many local elections both in the United States and internationally, ranked choice voting (“RCV,” which also is called “preferential voting” and “instant runoff voting”) in elections for one winner is designed to uphold majority rule and allow voters to have more than one choice without “vote-splitting” among like-minded candidates. Every voter in an RCV election has one vote. After selecting a first choice, voters are able to rank their backup choices as a second choice, third choice and so on (with some jurisdictions limiting rankings to three candidates). If no candidate wins a 50% +1 majority of the vote (that is, voters’ first choice preferences), these voters’ rankings are used to simulate a series of “instant runoff” elections. The last-place candidates are defeated one by one, and their backers’ votes are reallocated (added) to the totals of their next-preferred frontrunners. The election is won by the majority winner in the final round of counting.

RCV has been proposed as a means to address both major and minor electoral system problems. It can be used to fold two voting rounds into one, such as replacing expensive runoffs (which are also generally low turnout) or a primary-general election combination. It is valuable

when replacing plurality voting rules, whether they occur in nonpartisan elections, partisan primaries or general elections with strong third party and independent candidates. RCV has also been proposed as a means to improve the “Top Two” primary by allowing more than two candidates to advance to the final round – thereby better assuring that significant candidates who represent major parts of the political spectrum are not denied a place on the general election ballot. RCV may impact voter political participation and attitudes, but may also change how candidates campaign for elected office. We know electoral rules significantly structure candidate campaigns and strategy, such as how candidate strategy in presidential caucuses versus primaries (Redlawsk, Tolbert and Donovan 2011). Our focus here is on how RCV changes candidate campaigning and negativity.

#### *Data and Methods*

##### *Outcome variables*

This paper’s primary assertion is the idea that ranked choice voting reduces negativity in campaigning. The key dependent variable measures citizen perceptions of negativity in local elections. Respondents were asked, “Do you believe the campaigns this year were more negative, less negative, or about the same compared to other recent political contests.” Follow-up questions asked about whether the campaigns were “a little” or a “lot more” negative/positive. Responses were combined to create a 5 point ordinal scale that ranged from campaigns “were a lot more negative” (coded 1), “a little more negative” (coded 2), “about the same” (coded 3), “a little less negative” (coded 4) and “a lot less negative” (coded 5). Thus higher values indicated perceptions of more positive campaigns and less negativity.

What might be the causal mechanism whereby RCV would change perceptions of negativity in campaigns? A second outcome variable measures how frequently the candidates

criticized each other. A question on the survey asked “Thinking about the [CITY] election, how much time would you say the candidates spent criticizing their opponent?” Responses on a five point ordinal scale ranged from “a great deal of the time” coded 1 to “they weren't doing this at all” (coded 5). Higher values denote less critical candidate campaigns. Criticizing one’s opponent was also measured through the creation of a binary outcome variable, where one represented respondents who did not see candidates criticize their opponents, and zero represents respondents who did see candidates criticizing their opponents. The binary and ordinal coding of the outcomes variables in this paper allow a robustness test to see if the results remain whether using logistic or ordered logistic regression. This variable about candidates directly criticizing opponents represents a potential causal mechanism for understanding how RCV could reduce negativity in political campaigns.

Another causal mechanism that might lead to less negativity in campaigns is general satisfaction with candidate campaigns. Respondents in the survey were asked; “In general, are you very satisfied, fairly satisfied, not very satisfied, or not at all satisfied with the way most candidates have conducted their campaigns in the local election last Tuesday in [CITY]?” More positive responses given higher values, to be consistent with the coding of the previous variables. The variable ranged from one, which represented respondents who were “not at all satisfied,” to five, “very satisfied.”<sup>1</sup> As a robustness check, the variable was also coded into a binary variable with positive attitude a 1, with all others coded 0, and estimating using logistic regression instead of ordered logistic regression.

Other potential causal mechanism for RCV’s effect on perceptions of campaign civility versus negativity include measuring how often the candidates praised each other, perceptions of

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<sup>1</sup> Responses were coded so that “very satisfied” was coded a 5, “somewhat satisfied” a 4, “no opinion/don’t know” a 3, “not very satisfied: a 2 and “not at all satisfied” a 1

fairness of election outcomes, whether the campaigns provided useful information to citizens, whether the election was viewed as interesting or dull, and satisfaction with the choice of candidates. Five separate survey questions were used to measure these potential causal mechanisms. Exposure to candidates praising one another was measured with responses to the following question; “During the [CITY] election last Tuesday do you remember examples of candidates praising or endorsing any of their opponents?” Responses were coded on a five part ordinal scale from “no, never” coded a 1 to “yes, frequently” coded a 5 . Candidate information was measured by the question “Thinking about the election last Tuesday in [CITY], would you say the candidates provided people with a great deal of useful information, some, not too much, or no useful information?” Responses were recoded on an ordinal scale with a great deal of information coded higher. Candidate satisfaction was measured by the question “How satisfied were you with the choices of candidates for mayor or city council in this recent [CITY] election?” with very satisfied and fairly satisfied coded higher values than not satisfied. The models for this outcome variable include additional controls for whether the respondents lived in a city with a mayoral or city council race. The dynamics of the 2013 local elections were measured with the question “Would you describe the recent local election as interesting, or dull?” with those saying interesting coded 1, and all others 0. Finally fairness was measured by asking respondents “All things considered, do you think the outcome of the election was decided in a fair way?” A positive response was coded 1 and a negative response 0.

If RCV does change the dynamics of election campaigns toward more civility and less negativity, does this have an effect on attitudes about use of the process in general? Do those residents living in RCV cities like it? A final outcome variable is preference towards ranked choice voting. Respondents were asked “Do you think ranked choice voting, where voters can



rank candidates in order of preference with their first choice counting most, should be used in local elections in [CITY]?” The variable was coded so a zero represents respondents who would not implement ranked choice voting in local elections or had no opinion, and one represents respondents who believe ranked choice voting should be used in local elections other cities.

### *Predictor Variables*

The primary explanatory variable in this analysis measuring living in cities with ranked choice voting in use in 2013. This variable was coded as a binary variable, where one represented respondents who lived in cities with ranked choice voting. Respondents from cities with plurality election systems were coded 0. The statistical models control for other factors that could change perceptions of campaigns, including factors understood to predict civic engagement and political participation. These include a binary variable for the race of the respondent (white non-Hispanic coded 1, all others 0), age measured in years, a 7-point ordinal measure of the education of the respondent from less than a high school degree to post-graduate training or education, and binary variables for being married and employed. [Models reported here exclude respondents' income, which has extensive missing values, common in most surveys. When income is included using imputation to account for missing values, the results do not change.] Higher socioeconomic status citizens who are older should be more likely to participate in local elections and have a greater awareness of campaigns. Partisanship of the respondent is measured by the question “Generally speaking, do you think of yourself as closer to the Democratic Party or close to the Republican Party,” with binary variables for Democrats or Republicans coded 1 and independents/non partisans coded 0. Previous research has shown electoral losers have different political attitudes than winners, especially about reform of electoral laws (Anderson et al 2005). An ordinal variable measures electoral winner status in the

2013 local elections, with respondents whose preferred candidate was elected to city council and mayor coded 2, respondents who had a candidate elected to city council or mayor coded 1, and electoral losers and non-voters coded 0. We would expect electoral winners to be more satisfied with the campaigns.

Beyond this baseline set of control variables, the models account for general political interest (ordinal scale) and political mobilization (“During the recent local election, did a candidate or anyone from a local campaign contact you to persuade you how to vote either by phone, mail, in person or over the Internet?”). The variable measures ways citizens may have been contacted by the campaign, including social networking such as Facebook or Twitter. Individuals experiencing contact were coded 1, and all other 0. Since increased confidence in government may raise confidence in elections, the models also include an ordinal variable of how satisfied the respondent is with their city government; “On the whole, are you very satisfied, fairly satisfied, not very satisfied, or not at all satisfied with the way government works in [CITY]?” Higher values indicated more satisfaction. The models were also estimated including how satisfied the respondent was with the choice of candidates as a control/explanatory variable. The results did not change from what is reported below.

### *Results*

Multivariate regression is used to statistically control for possible alternative explanations for the outcome variables of perceptions of campaign civility and negativity; this is used to rule out the possibility that other factors besides the presence or absence of RCV caused changes in the outcome variable. Table 1 provides an analysis of our key outcome variable using the ordinal measure of perceptions of negative campaigns. Since the outcome variable is ordinal, ordered logistic regression coefficients are reported. The columns provide increasingly strict statistical

tests, controlling for additional predictor variables. Across the four models in Table 1, respondents living in cities with RCV elections were more likely to perceive the candidate campaigns were a lot or somewhat less negative than in previous elections, controlling for other factors. The coefficient for RCV city is statistically significant in all cases. This means the results would not have occurred by chance, but rather there appears to be a systematic relationship between availability of RCV elections and perceptions of relatively more positive electoral campaigns. As a robustness check, Table 2 repeats the same series of four models but uses the binary coding positive campaigns (a lot more positive, somewhat more positive coded 1, all other responses 0), with very similar results. This finding does not appear to be sensitive to model specification or the set of control variables included.

Predicted probabilities using Monte Carlo simulations are used to measure the substantive effect of the availability of RCV versus plurality elections on perceptions of positive campaigning, with all other variables in Table 1 (model 3) held constant at mean values. Holding other factors constant, if a respondent resides in an RCV city their probability of saying the campaign was a lot less negative was .26. The same individual residing in a city with plurality elections has only a .14 probability of saying “a lot less negative;” a 12% difference based on the presence or absence of RCV alone. If an individual resides in an RCV city their probability of saying the campaign was “a little less negative” was .17. The same individual residing in a city with plurality elections has only a .12 probability of saying a little less negative; a 5% difference. Combined, RCV elections increased perceptions of positive campaigning by over 17 percentage points. These are substantively large findings regarding more positive perceptions of campaigns cities with RCV compared to plurality elections.

Table 3 reports the findings for five possible causal mechanisms that may underpin these results; the presence of RCV elections increases 1) perceptions of the fairness of the election, 2) the frequency of candidates praising or cooperating with their opponents, 3) general interest in the election, 4) usefulness of campaign information, or 5) satisfaction with the choice candidates. Use of RCV is not statistically associated with increased perceptions of any of the outcome variables. Respondents living in RCV cities were not more likely to believe the outcome of the election were more fair, nor were they more likely to believe the candidates or campaigns provided useful information to citizens, or that the campaigns were interesting in contrast to dull. They were also not more likely to be exposed to the candidates praising one another or cooperating in other ways. And they were not more satisfied with the choice of candidates. The data provides null results for these five possible causal mechanisms of how RCV effects campaigns.

Tables 4 and 5, however, provide statistical support for another causal mechanism. Individuals residing in cities with RCV elections are less likely to be exposed to candidates criticizing their opponents, which is consistent with the primary finding of more positive campaigning in RCV cities and less negativity. The results are similar whether the outcome variable is measured with a binary variable and logistic regression (Table 4) or with an ordinal variable and ordered logistic regression (Table 5). The findings are immune to changes in the set of control variables used, as shown in the step ladder models (columns 1-4 in both tables) that add in additional predictor variables. Controlling for demographic factors, partisanship, whether the individual was an electoral loser or winner, general political interest, mobilization by the candidate campaigns, and their overall level of satisfaction with city government, respondents living in RCV cities were more likely to perceive less criticism among the candidates.

Respondents from RCV cities had a 75% probability of saying the candidates did not criticize one another, while individuals living in cities without RCV (plurality election) had only a 46% probability of the same response, all else equal (see Figure 2, based on coefficients in Table 5, column 3). Thus RCV is associated with almost a 30% decline in perceptions of negativity in elections. The reverse is also true. Respondents living in cities with plurality elections had a 54% chance of saying the candidates were critical of one another, while RCV respondents had only a 25% chance of giving this answer. These differences between the prevalence of negativity in RCV and non-RCV cities are substantively large.

Another complementary finding regarding our primary hypothesis is reported in Tables 6 and 7, where the outcome variable measures overall satisfaction with how the candidate campaigns were conducted in the 2013 elections. Again, Table 6 reports logit coefficients based on a binary coding of the outcome variable and Table 7 shows ordered logistic coefficients based on the ordinal coding; the two model specifications are used as a robustness test to ensure that alternative variable coding does not affect the results. Across the models respondents in RCV cities expressed more general satisfaction with the candidate campaigns; this finding is statistically significant. Figure 3 graphs the predicted probabilities based on the coefficients in Table 7, holding other factors at mean values (constant). Residents in RCV cities had a 29% chance of saying they were “very satisfied” with the way the campaigns were conducted, compared to only 22% for those living in cities with plurality elections, all else equal. This is a 7% increase in satisfaction with the conduct of campaigns attributed to the type of election rules used.

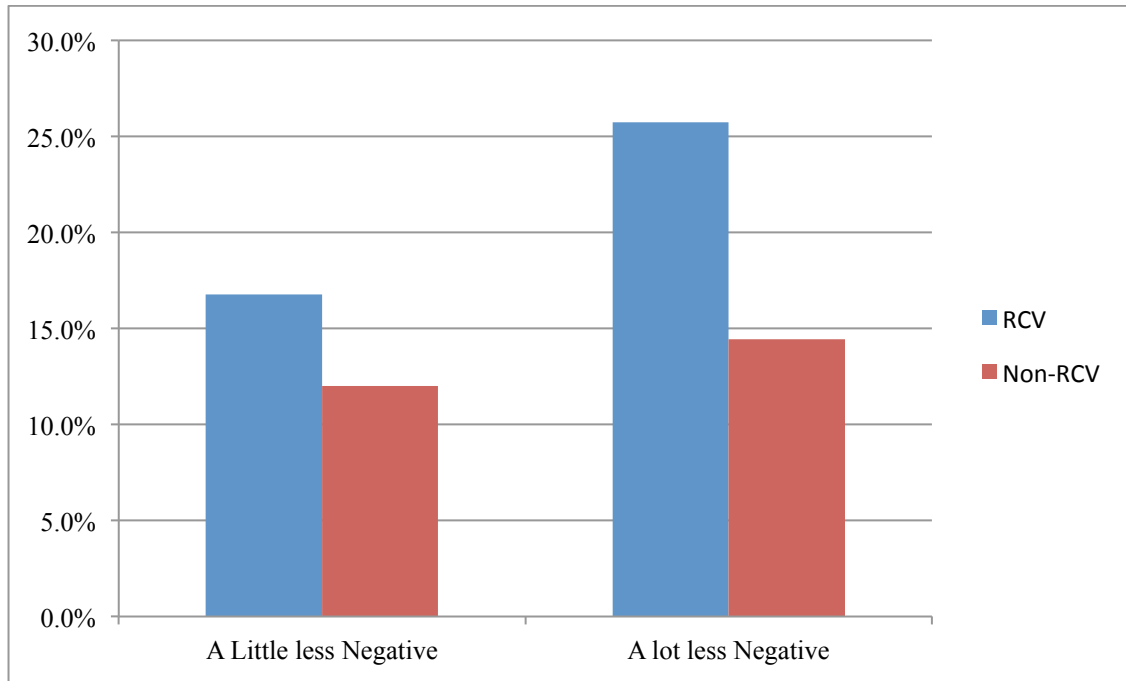
Finally, does exposure to more positive candidate campaigns spillover to support for this election system? Table 8 shows that individuals in RCV cities are also statistically more likely to

believe RCV should be used in local elections in other cities. More than a majority of respondents in RCV cities want the system used in other local elections, while a majority of those in plurality election cities oppose the spread of RCV (see probabilities in Figure 4). Thus experience using RCV elections appears to raise support for the process in general. That is, to know RCV is to like it.

*Conclusion*

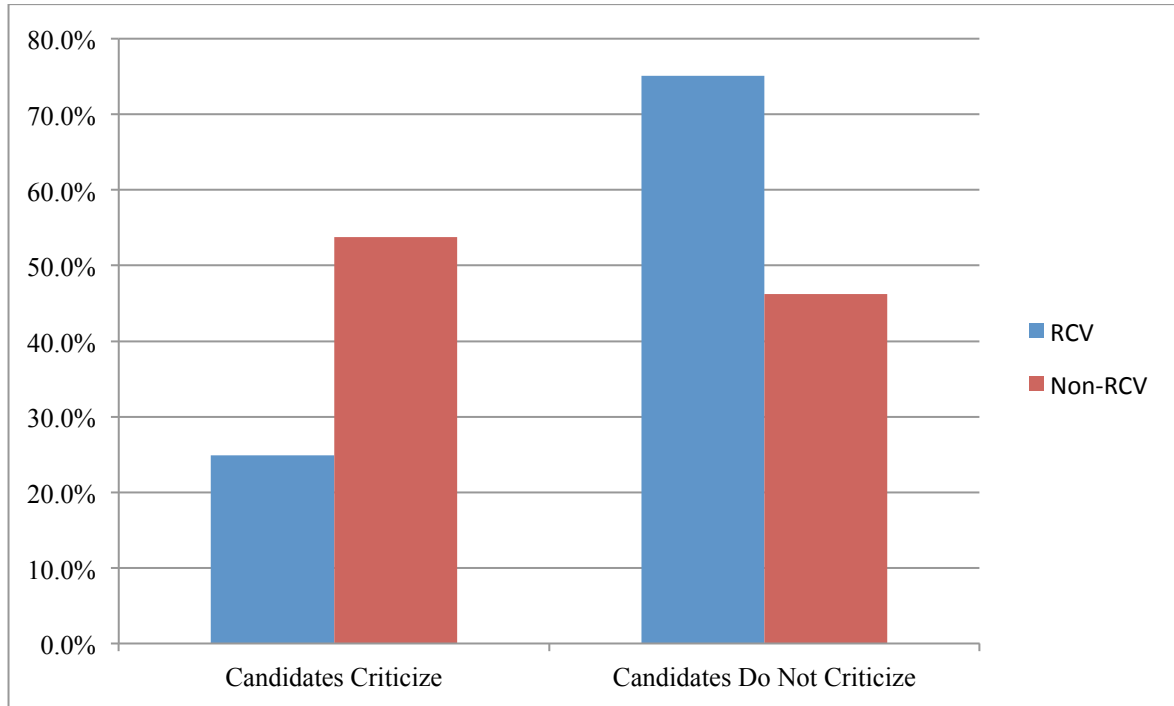
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Figure 1: Probability of Perceiving Less Negative Campaigns than Usual, based on regression coefficients in Table 1 (all other factors held constant at mean values) Varying RCV Elections



	A Little less Negative	95% confidence interval	A lot less Negative	95% confidence interval
RCV	0.1676	.151-.1843	.2573	.2343-.2802
Non-RCV	0.1202	.1062-.1343	.1443	.1272-.1614

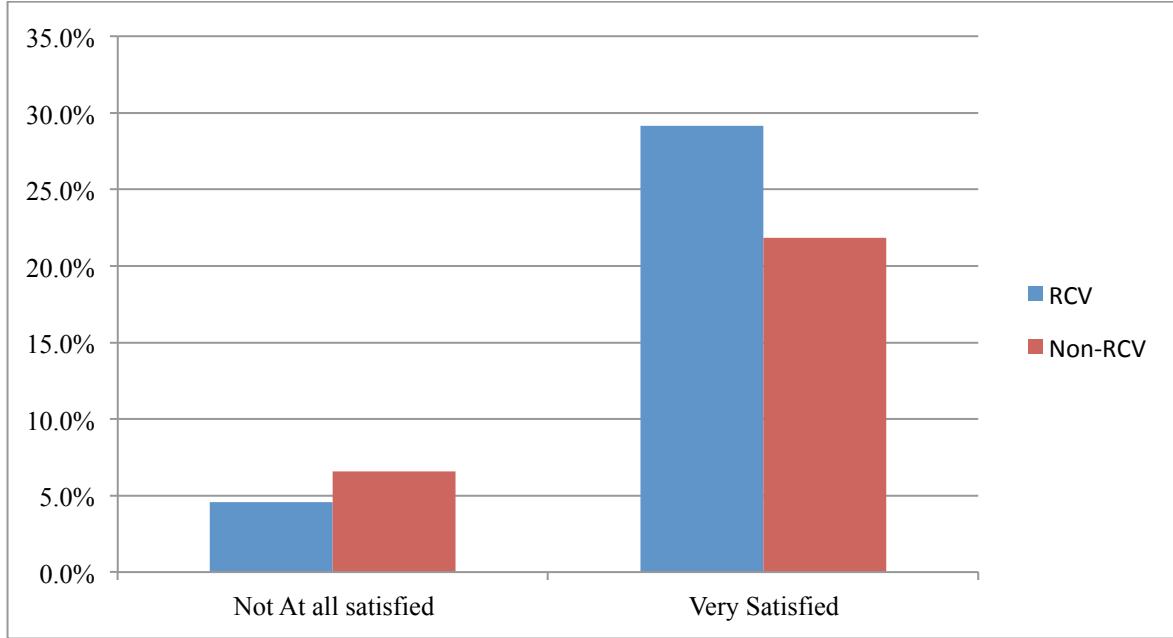
Figure 2: Probability of Perceiving Less Criticism Among the Candidates, based on regression coefficients in Table 5, Column 3 (all other factors held constant at mean values) Varying RCV Elections



	Candidates Criticize	95% Confidence Interval	Candidates Do Not Criticize	95% Confidence Interval
RCV	.2490	.2237-.2743	.7510	.7257-.7763
Non-RCV	.5376	.5086-.5667	.4624	.4333-.4914

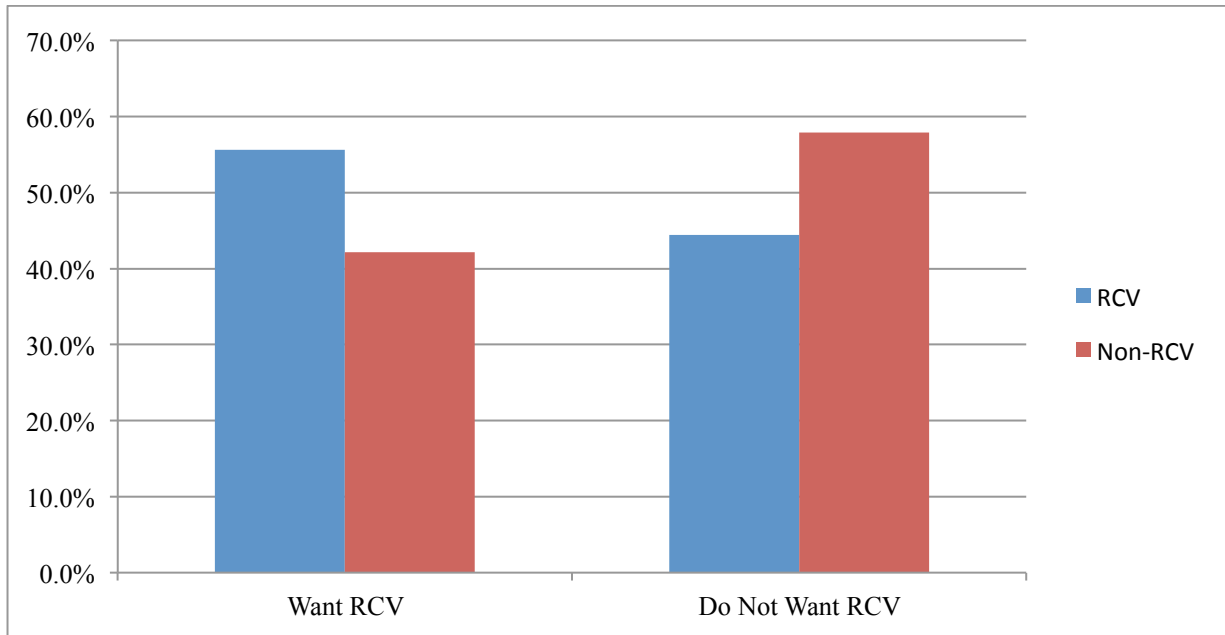


Figure 3: Probability of Satisfaction with Candidate Campaigns, based on regression coefficients in Table 7, Column 3 (all other factors held constant at mean values) Varying RCV Elections



	Very Satisfied	95% Confidence Interval	Not At All Satisfied	95% Confidence Interval
RCV	0.2914	.2669-.3159	.0457	.0376-.0538
Non-RCV	0.2183	.1972-.2395	.0659	.0542-.0775

Figure 4: Probability of Favoring RCV for City Elections, based on regression coefficients in Table 8 (all other factors held constant at mean values) Varying RCV Elections



	Use RCV	95% confidence interval	Do Not Use RCV	95% confidence interval
RCV	.5558	.5267-.5849	.4442	.4151-.4733
Non-RCV	0.4214	.3925-.4502	.5786	.5498-.6075

Table 1: Ordered Logit of Positive Campaigning

	<i>Dependent variable:</i>			
	Ordinal Less Negative Campaigning			
	(1)	(2)	(3)	(4)
RCV	0.787*** (0.083)	0.797*** (0.083)	0.783*** (0.084)	0.765*** (0.084)
White	0.104 (0.111)	0.085 (0.111)	0.083 (0.111)	0.060 (0.111)
Age	-0.008*** (0.003)	-0.010*** (0.003)	-0.010*** (0.003)	-0.010*** (0.003)
Education	0.188*** (0.038)	0.176*** (0.038)	0.165*** (0.039)	0.158*** (0.039)
Employed	-0.044 (0.094)	-0.059 (0.094)	-0.060 (0.094)	-0.046 (0.094)
Married	0.121 (0.082)	0.105 (0.082)	0.108 (0.082)	0.098 (0.082)
Democrat	0.083 (0.090)	0.084 (0.090)	0.079 (0.090)	0.006 (0.092)
Republican	-0.695*** (0.134)	-0.694*** (0.134)	-0.696*** (0.134)	-0.696*** (0.134)
Electoral Winner	0.412*** (0.056)	0.379*** (0.056)	0.372*** (0.057)	0.336*** (0.057)
Political Interest		0.182*** (0.054)	0.169*** (0.054)	0.162*** (0.054)
Mobilization			0.161* (0.091)	0.162* (0.091)
City Satisfaction				0.162*** (0.038)
A lot more negative A little more negative	-2.018*** (0.250)	-1.605*** (0.278)	-1.609*** (0.278)	-1.169*** (0.296)
A little more negative About the same	-1.470*** (0.244)	-1.058*** (0.272)	-1.063*** (0.272)	-0.622*** (0.291)
About the same A little less negative	1.684*** (0.242)	2.106*** (0.273)	2.105*** (0.273)	2.563*** (0.295)
A little less negative A lot less negative	2.451*** (0.245)	2.874*** (0.277)	2.873*** (0.277)	3.336*** (0.299)
Observations	2,398	2,394	2,394	2,394

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Unstandardized ordered logistic regression coefficients with standard errors in parentheses.

Significance levels based on two-tailed tests.

Table 2: Logistic Regression of Positive Campaigning

	<i>Dependent variable:</i>			
	Dichotomous Less Negative Campaigning			
	(1)	(2)	(3)	(4)
RCV	0.601*** (0.091)	0.631*** (0.092)	0.609*** (0.092)	0.587*** (0.093)
White	0.104 (0.125)	0.077 (0.126)	0.073 (0.126)	0.051 (0.127)
Age	-0.006** (0.003)	-0.009*** (0.003)	-0.009*** (0.003)	-0.009*** (0.003)
Education	0.226*** (0.043)	0.209*** (0.044)	0.188*** (0.044)	0.178*** (0.045)
Employed	0.046 (0.105)	0.026 (0.106)	0.025 (0.106)	0.041 (0.106)
Married	0.142 (0.091)	0.119 (0.092)	0.124 (0.092)	0.112 (0.093)
Democrat	0.145 (0.100)	0.151 (0.100)	0.141 (0.101)	0.063 (0.103)
Republican	-0.686*** (0.161)	-0.678*** (0.161)	-0.680*** (0.162)	-0.678*** (0.162)
Electoral Winner	0.416*** (0.062)	0.368*** (0.063)	0.358*** (0.063)	0.318*** (0.064)
Political Interest		0.310*** (0.066)	0.285*** (0.066)	0.280*** (0.067)
Mobilization			0.310*** (0.105)	0.312*** (0.106)
City Satisfaction				0.185*** (0.045)
Constant	-1.960*** (0.276)	-2.728*** (0.326)	-2.740*** (0.327)	-3.287*** (0.357)
Observations	2,398	2,394	2,394	2,394
Log Likelihood	-1,457.362	-1,442.697	-1,438.316	-1,429.530
Akaike Inf. Crit.	2,934.724	2,907.394	2,900.631	2,885.060

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Unstandardized logistic regression coefficients with standard errors in parentheses.

Significance levels based on two-tailed tests.

Table 3: Null and Negative Findings

	<i>Dependent variable:</i>				
	Fairness	Candidate Praise	Interesting Election	Useful Info.	Cand. Choice Satisfaction
	<i>logistic</i>	<i>logistic</i>	<i>logistic</i>	<i>ordered logistic</i>	<i>ordered logistic</i>
	(1)	(2)	(3)	(4)	(5)
RCV	-0.275*** (0.096)	-0.073 (0.101)	0.064 (0.088)	0.011 (0.080)	-0.394*** (0.130)
White	0.212* (0.126)	-0.178 (0.135)	-0.221* (0.120)	0.091 (0.109)	0.025 (0.114)
Age	-0.009*** (0.003)	-0.004 (0.003)	0.002 (0.003)	0.007*** (0.003)	0.001 (0.003)
Education	0.093** (0.044)	0.093* (0.048)	0.140*** (0.041)	0.060 (0.038)	0.029 (0.041)
Employed	0.071 (0.111)	0.189 (0.117)	-0.038 (0.102)	-0.123 (0.092)	-0.021 (0.098)
Married	0.064 (0.096)	0.094 (0.102)	0.203** (0.088)	0.046 (0.080)	0.045 (0.085)
Democrat	0.122 (0.104)	0.008 (0.112)	0.565*** (0.097)	0.493*** (0.089)	0.602*** (0.094)
Republican	0.556*** (0.157)	-0.345** (0.171)	0.220 (0.136)	0.086 (0.127)	0.141 (0.130)
Electoral Winner	0.821*** (0.070)	0.344*** (0.069)	0.408*** (0.061)	0.413*** (0.055)	0.638*** (0.058)
Political Interest		0.367*** (0.077)	0.468*** (0.060)		0.038 (0.056)
Mayoral Election					0.550*** (0.189)
Council Election					-0.057 (0.174)
Constant	0.203 (0.277)	-2.865*** (0.372)	-2.731*** (0.304)		
Observations	2,398	2,394	2,394	2,398	2,008
Log Likelihood	-1,338.968	-1,242.977	-1,540.389		
Akaike Inf. Crit.	2,697.936	2,507.955	3,102.779		

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Unstandardized logistic regression coefficients with standard errors in parentheses.

Unstandardized ordered logistic regression coefficients with standard errors in parentheses.

Significance levels based on two-tailed tests.

Table 4: Logistic Regression of Less Criticism Between Candidates

	<i>Dependent variable:</i>			
	Dichotomous Less Criticism			
	(1)	(2)	(3)	(4)
RCV	1.247*** (0.091)	1.236*** (0.091)	1.266*** (0.092)	1.258*** (0.092)
White	0.190 (0.121)	0.216* (0.121)	0.223* (0.121)	0.209* (0.122)
Age	0.002 (0.003)	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)
Education	-0.049 (0.042)	-0.035 (0.043)	-0.013 (0.043)	-0.018 (0.044)
Employed	-0.309*** (0.105)	-0.299*** (0.105)	-0.301*** (0.106)	-0.291*** (0.106)
Married	-0.223** (0.091)	-0.205** (0.091)	-0.212** (0.091)	-0.218** (0.092)
Democrat	0.071 (0.100)	0.074 (0.101)	0.082 (0.101)	0.044 (0.102)
Republican	-0.622*** (0.140)	-0.624*** (0.140)	-0.624*** (0.140)	-0.627*** (0.140)
Electoral Winner	0.044 (0.062)	0.069 (0.063)	0.084 (0.063)	0.061 (0.064)
Political Interest		-0.171*** (0.060)	-0.145** (0.061)	-0.151** (0.061)
Mobilization			-0.302*** (0.102)	-0.304*** (0.102)
City Satisfaction				0.091** (0.041)
Constant	0.072 (0.265)	0.444 (0.301)	0.440 (0.301)	0.189 (0.322)
Observations	2,398	2,394	2,394	2,394
Log Likelihood	-1,470.701	-1,465.117	-1,460.713	-1,458.296
Akaike Inf. Crit.	2,961.401	2,952.235	2,945.426	2,942.591

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Unstandardized logistic regression coefficients with standard errors in parentheses.

Significance levels based on two-tailed tests.

Table 5: Ordered Logit of Less Criticism Between Candidates

	<i>Dependent variable:</i>			
	Ordinal Less Criticism			
	(1)	(2)	(3)	(4)
RCV	1.150*** (0.078)	1.152*** (0.078)	1.171*** (0.079)	1.163*** (0.079)
White	0.049 (0.103)	0.047 (0.103)	0.049 (0.103)	0.037 (0.103)
Age	0.002 (0.002)	0.002 (0.002)	0.003 (0.002)	0.003 (0.002)
Education	-0.063* (0.035)	-0.061* (0.036)	-0.050 (0.036)	-0.054 (0.036)
Employed	-0.240*** (0.088)	-0.240*** (0.088)	-0.242*** (0.088)	-0.234*** (0.088)
Married	-0.181** (0.076)	-0.179** (0.076)	-0.183** (0.076)	-0.185** (0.076)
Democrat	0.117 (0.083)	0.121 (0.083)	0.126 (0.083)	0.093 (0.085)
Republican	-0.479*** (0.122)	-0.478*** (0.122)	-0.474*** (0.122)	-0.475*** (0.122)
Electoral Winner	0.146*** (0.051)	0.148*** (0.052)	0.158*** (0.052)	0.137** (0.053)
Political Interest		-0.026 (0.050)	-0.012 (0.050)	-0.015 (0.050)
Mobilization			-0.182** (0.084)	-0.182** (0.084)
City Satisfaction				0.083** (0.035)
A great deal of time Some of the time	-1.570*** (0.229)	-1.613*** (0.256)	-1.632*** (0.256)	-1.396*** (0.275)
Some of the time Don't know	-0.028 (0.225)	-0.069 (0.252)	-0.084 (0.252)	0.155 (0.272)
Don't know Not too much	0.482** (0.226)	0.436* (0.252)	0.422* (0.253)	0.662** (0.272)
Not too much Not at all	2.152*** (0.230)	2.106*** (0.257)	2.092*** (0.257)	2.335*** (0.277)
Observations	2,398	2,394	2,394	2,394

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Unstandardized ordered logistic regression coefficients with standard errors in parentheses.

Significance levels based on two-tailed tests.

Table 6: Logistic Regression of Satisfaction with Conduct of Campaigns

	<i>Dependent variable:</i>			
	Dichotomous Satisfaction			
	(1)	(2)	(3)	(4)
RCV	0.395*** (0.102)	0.414*** (0.102)	0.401*** (0.103)	0.377*** (0.106)
White	0.276** (0.130)	0.242* (0.132)	0.240* (0.132)	0.165 (0.137)
Age	0.0001 (0.003)	-0.002 (0.003)	-0.002 (0.003)	-0.001 (0.003)
Education	0.092** (0.047)	0.081* (0.047)	0.071 (0.048)	0.038 (0.050)
Employed	0.079 (0.118)	0.060 (0.118)	0.060 (0.118)	0.128 (0.121)
Married	0.161 (0.101)	0.149 (0.102)	0.153 (0.102)	0.135 (0.105)
Democrat	0.593*** (0.110)	0.597*** (0.110)	0.594*** (0.110)	0.399*** (0.115)
Republican	-0.030 (0.145)	-0.026 (0.145)	-0.028 (0.145)	-0.037 (0.150)
Electoral Winner	0.779*** (0.074)	0.750*** (0.075)	0.744*** (0.075)	0.635*** (0.077)
Political Interest		0.153** (0.063)	0.143** (0.063)	0.137** (0.065)
Mobilization			0.133 (0.109)	0.122 (0.113)
City Satisfaction				0.474*** (0.044)
Constant	-0.646** (0.289)	-0.977*** (0.319)	-0.974*** (0.319)	-2.332*** (0.355)
Observations	2,398	2,394	2,394	2,394
Log Likelihood	-1,234.574	-1,228.730	-1,227.997	-1,168.618
Akaike Inf. Crit.	2,489.148	2,479.459	2,479.993	2,363.237

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Unstandardized logistic regression coefficients with standard errors in parentheses.

Significance levels based on two-tailed tests.



Table 7: Ordered Logit of Satisfaction with Conduct of Campaigns

	<i>Dependent variable:</i>			
	Ordinal Satisfaction			
	(1)	(2)	(3)	(4)
RCV	0.458*** (0.079)	0.474*** (0.079)	0.474*** (0.080)	0.420*** (0.080)
White	0.144 (0.107)	0.117 (0.108)	0.117 (0.108)	0.052 (0.109)
Age	0.001 (0.003)	-0.0004 (0.003)	-0.0004 (0.003)	0.0005 (0.003)
Education	0.067* (0.037)	0.053 (0.037)	0.053 (0.038)	0.027 (0.038)
Employed	-0.049 (0.091)	-0.062 (0.092)	-0.062 (0.092)	-0.022 (0.092)
Married	0.138* (0.079)	0.122 (0.079)	0.122 (0.079)	0.093 (0.080)
Democrat	0.552*** (0.088)	0.559*** (0.088)	0.559*** (0.088)	0.353*** (0.090)
Republican	-0.148 (0.122)	-0.139 (0.123)	-0.139 (0.123)	-0.136 (0.124)
Electoral Winner	0.611*** (0.055)	0.580*** (0.056)	0.580*** (0.056)	0.472*** (0.057)
Political Interest		0.172*** (0.051)	0.172*** (0.052)	0.145*** (0.052)
Mobilization			0.002 (0.088)	-0.008 (0.088)
City Satisfaction				0.582*** (0.038)
Not at all satisfied Not very satisfied	-1.376*** (0.241)	-0.994*** (0.268)	-0.994*** (0.268)	0.515* (0.284)
Not very satisfied No opinion/Don't know	-0.096 (0.233)	0.291 (0.260)	0.291 (0.260)	1.890*** (0.281)
No opinion/Don't know Fairly satisfied	0.317 (0.233)	0.703*** (0.260)	0.703*** (0.260)	2.334*** (0.282)
Fairly satisfied Very satisfied	2.653*** (0.240)	3.050*** (0.269)	3.050*** (0.269)	4.850*** (0.297)
Observations	2,398	2,394	2,394	2,394

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Unstandardized ordered logistic regression coefficients with standard errors in parentheses.

Significance levels based on two-tailed tests.

Table 8: Logistic Regression of Preference for RCV System

<i>Dependent variable:</i>				
Use RCV In Other Cities				
	(1)	(2)	(3)	(4)
RCV	0.578*** (0.086)	0.568*** (0.087)	0.572*** (0.087)	0.559*** (0.087)
White	-0.169 (0.116)	-0.169 (0.117)	-0.168 (0.117)	-0.185 (0.118)
Age	-0.015*** (0.003)	-0.013*** (0.003)	-0.013*** (0.003)	-0.013*** (0.003)
Education	0.004 (0.040)	0.017 (0.041)	0.020 (0.041)	0.014 (0.041)
Employed	0.189* (0.099)	0.198** (0.099)	0.198** (0.099)	0.210** (0.100)
Married	0.064 (0.086)	0.084 (0.087)	0.083 (0.087)	0.076 (0.087)
Democrat	0.366*** (0.095)	0.360*** (0.096)	0.361*** (0.096)	0.313*** (0.097)
Republican	-0.007 (0.136)	-0.016 (0.137)	-0.015 (0.137)	-0.016 (0.137)
Electoral Winner	0.188*** (0.059)	0.222*** (0.060)	0.224*** (0.060)	0.197*** (0.061)
Political Interest		-0.193*** (0.057)	-0.190*** (0.057)	-0.196*** (0.057)
Mobilization			-0.046 (0.096)	-0.048 (0.096)
City Satisfaction				0.113*** (0.040)
Constant	0.183 (0.254)	0.661** (0.287)	0.661** (0.287)	0.351 (0.307)
Observations	2,398	2,394	2,394	2,394
Log Likelihood	-1,591.621	-1,582.687	-1,582.573	-1,578.497
Akaike Inf. Crit.	3,203.242	3,187.374	3,189.147	3,182.994

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Unstandardized logistic regression coefficients with standard errors in parentheses.

Significance levels based on two-tailed tests.