

## **Using Mixed-Mode Surveys (Internet and Mail) to Examine General Election Voters\***

By

Lonna Rae Atkeson

Professor

University of New Mexico

Department of Political Science

MSC05-3070

1 University of New Mexico

Albuquerque, NM 87131-0001

(505) 277-7592 (office)/(505) 660-8976 (mobile)/(505) 471-5548 (home)

E-mail:atkeson@unm.edu

FAX:(505) 277-2821/(505)471-2469

Luciana Zilberman

University of New Mexico

Alex N. Adams

University of New Mexico

Kyle L. Saunders

Colorado State University

**Abstract:** We examine a post election mixed-mode (Internet and mail) survey design of registered voters in terms of its representativeness. Sampled registered voters were sent a letter after the election requesting their participation in a post election survey and were provided a URL through which they could enter the survey or they could call a toll free number and request a mail survey. Respondents were contacted an additional three times with reminder postcards. We compare the sample respondents to the sample population on key demographic characteristics and examine how mail and Internet respondents differed in terms of attitudes, behaviors and demographics. We find that in general our sample did a good job of representing our population, though some differences did emerge. We find that mode of survey did not influence survey response on attitudes, but that the Internet respondents were younger, more educated, wealthier and were more male than our mail respondents. We also find strong effects that reminder postcards encouraged response.

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The web is an increasingly powerful and popular tool for survey research; several prominent survey companies (e.g. Harris Interactive, Zogby, etc) are experimenting and integrating web based surveys into their research designs. Several other companies (e.g. Knowledge Networks, Polimetrix) are solely devoted to web based surveys.

Academics are also increasingly using web based surveys. For example, the American National Election Study (ANES) 2007-2009 panel will be conducted over the Internet. The Internet is growing as a survey research tool because it offers many advantages over traditional formats. Internet surveys are relatively cheaper than traditional RDD designs due to the need for less staff and administrative support (Cobanoflu, Warde and Morec 2001). Internet surveys also allow for extensive visual and experimental opportunities for researchers.

Internet designs also offer certain advantages for the respondent. For example, respondents can choose to participate whenever it is convenient for them and research indicates that individuals are more engaged in the interactive Internet survey design than in mail surveys and that the quality of the response is better than both mail and phone survey designs (Krosnick, Silver and Schneider ND; Krosnick and Change 2003).

However, two ongoing issues in the debate about Internet surveys—and not by coincidence other survey modes—is the question of coverage and non-random selection. The coverage issue involves the fact that the Internet is not available to the entire population of interest. If the sample is limited to only Internet users, this often produces coverage error because all members of the survey population do not have an equal or known non zero chance of being selected for participation. Though this is still a potential problem, as time passes more and more

of the public are becoming Internet users with approximately 73% of the public indicating they now have access.<sup>1</sup>

The second issue—and perhaps the more important one for designs based upon random samples—is the non-random selection or non-response error. This problem results when those who choose to participate in a survey are different from those who were sampled. Non-response is especially a problem in Internet based surveys because such a large portion of the public does not have regular access to the Internet and therefore, if sampled, cannot choose to participate. Importantly, we know that a substantial “digital divide” exists and, though decreasing, Internet users tend to be younger, male and have greater political and social resources such as education and income.<sup>2</sup> And, similar to mail surveys, the researcher does not obtain personal access to the individual respondent, either by phone or face-to-face, thus providing an additional opportunity for a respondent to not make the effort to complete the survey.

This study seeks to address these concerns by examining registered voters response to a post general election mixed-mode survey; we allowed respondents to either answer a traditional mail survey or respond on the web. Due to the nature of our sample, we have a variety of demographic information about each potential respondent and thus can determine if our respondents reflected our sample and thus determine its representativeness. We can also compare our sample respondents to a number of other aggregate benchmarks, including the election outcome and other characteristics of the general electorate. We can also determine if allowing respondents the option to request a mail survey enhanced the representativeness of the sample or whether such measures were not necessary and whether mail respondents had similar

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<sup>1</sup> See the following Pew Internet and Life report at: [http://www.pewinternet.org/PPF/r/182/report\\_display.asp](http://www.pewinternet.org/PPF/r/182/report_display.asp). Interestingly, telephone coverage error is increasing at the same time that Internet coverage error is decreasing, creating many of the same issues for survey researchers relying on this more traditional mode of response.

<sup>2</sup> See the following Pew Internet and Life report at: [http://www.pewinternet.org/PPF/r/182/report\\_display.asp](http://www.pewinternet.org/PPF/r/182/report_display.asp).

political attitudes to web respondents. In addition, we examine the effectiveness of our method of contact and approach and how initial and follow-up contact affected the response rate. Such examinations are necessary to determine how to use the web appropriately to enhance response rates and sample representativeness (Couper 2000).

## **Data**

This study is based on a sample of registered voters from New Mexico's First Congressional District (NMCD1) and Colorado's Seventh Congressional District (COCD7). The population of registered voters was provided by the Secretary of State's Office in New Mexico and Colorado after the final registration day for the 2006 general election and we selected a random sample from the population.<sup>3</sup>

Following the general Dillman (2000) method of contact and re-contact, just before Election Day, we sent out 4050 letters to a random sample of registered voters in both congressional districts requesting their participation in our Election Administration Survey. The letter explained our study and its importance, the respondent's unique position within it and provided them with a URL<sup>4</sup> that took respondents to a web page through which they could enter the survey (See Appendix A for a sample copy of the contact letter). The web page presented respondents with a FAQ including IRB policies. The letter also explained that respondents could request a mail survey and a return self-addressed stamped envelope by contacting us via a toll free number or by calling our offices.

Sample registered voters who did not respond were re-contacted three times with a postcard reminding them of the study, the URL, their ability to request a mail survey and their identification number for the survey (see Appendix B for a sample copy of the postcard). The

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<sup>3</sup> New Mexico Secretary of State Rebecca Vigil-Giron and Colorado Secretary of State Gigi Dennis were kind enough to provide us with the voter registration files for free. We thank them for their helpfulness.

<sup>4</sup> The URLs were [votewebnewmexico.unm.edu](http://votewebnewmexico.unm.edu) or [votecolorado.unm.edu](http://votecolorado.unm.edu)

first postcard was sent on November 16 to Coloradoans and on November 17 to New Mexicans. The second reminder postcard was sent on December 1 to New Mexicans and on December 4 to Coloradoans. The final reminder postcard was sent to both state samples on December 19. The response rate for the sample was about 14% (n=870; New Mexico 15.3% and Colorado 12.1%) and was calculated as the number of surveys returned to us, either through web submission or returned mail, divided by the total number of survey respondents that were eligible.<sup>5</sup> This response rate is the maximum response rate (RR6) as defined by the American Association for Public Opinion Research (AAPOR 2000).

It is important to note, however, that in implementing our design we sent the first contact letters third class to save money, and therefore did not receive undeliverable letters back from the postal service, but we sent out the reminder postcards first class so that undeliverable mail would be returned to us. This was important because voter lists are extremely dirty. However, we found that upon each subsequent mailing, in which we deleted “unreachable” sample members, additional mail was returned. In addition, we had several phone calls from respondents who received the first, second, or even third postcard who told us that they had never been contacted previously. Because of this, we sent out an additional 50 first class letters to a random selection of each state sample population who had not responded with the same information and included a copy of the mail survey.<sup>6</sup> We did this because we worried many of our reminder postcards were not delivered, but that a first class letter might make a difference to the US postal service. In New Mexico, we got 10% (n=5) returned to us and in Colorado we got about 5% returned (n=3). Thus, we think it is important to consider that lower mail delivery quality may be an important concern in terms of sample recruitment and in evaluating the quality of the sample. In

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<sup>5</sup> Due to the poor quality of both states’ voter registration file over 22% of our sample was unreachable.

<sup>6</sup> Seventeen completed mail surveys were returned to us.

this case, it suggests our response rate was actually higher at almost 15% (16.8% in New Mexico and 12.7% in Colorado).

The mail and web surveys were largely the same with similar styles for question presentation and order.<sup>7</sup> The web survey software was Opinio 5.0. The web survey was partitioned across numerous pages and included a counter telling respondents how much of the survey they had left to complete. The paper survey was on a 14" X 8" piece of paper and folded to create four sides of questions. Respondents colored in bubbles to answer questions. Over 5 in 6 respondents (83.5%) chose the Internet option and not quite 1 in 6 (16.5%) chose the mail option.

Survey questions asked about their election experience (voter confidence, voting problems, method of voting, experience with poll workers, voter satisfaction), their attitudes toward fraud, voter access, voter identification and other political attitudes including evaluations of the President, the congressional candidates and their local and state election administrators. We also asked several questions related to the congressional race (vote choice, political activity, etc.) and a variety of demographics.<sup>8</sup>

Because this was an election oriented survey with many questions focusing on voter experience with the election process, our respondents were almost all voters. Only 29 (3%) of registered voters who did not turnout for the 2006 election chose to participate.

### **Evaluating Representativeness**

The sample we drew included additional information about the registered voters including their gender, age (birth year), party affiliation, registration date, and city. We use these data to compare our sample respondents to our sample and compare web respondents to mail

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<sup>7</sup> Because of page constraints one question had to be moved elsewhere.

<sup>8</sup> A frequency report of the Election Administration survey can be found at: <http://vote2006.unm.edu>.

respondents to determine if and how they differed across these key dimensions. Because our sample is centered on the election, we can also examine how well our sample did in predicting the outcomes of these races and how we did at representing Election Day, absentee and early voters. Given that we know there is a bias toward Internet users being younger and more male, we suspect we might see differences in our samples across survey modes and that the mail survey will be pivotal in this regard in creating a more representative sample. We use a one-sample t-test where the sample population mean or actual election outcome becomes the test value for the sample respondent mean.

Table 1 compares the sample population mean to the sample respondent mean regardless of mode of interview for gender, age, party affiliation, and voter registration date. Gender is operationalized as percent male. Age is calculated based by birth year. With the exception of gender, we see that we significantly either under or over represented sample population characteristics, though substantively often the differences are relatively small. Party affiliation is examined for registered Democrats, Republicans and others. The third column of Table 1 shows the percentage difference between the sample population and the sample respondents; thus a negative difference indicates over-representation of a group and a positive difference indicates under representation of a group. Our sample was slightly older than the sample population mean (56 versus 50 years old), interestingly this kind of demographic difference is often seen in phone surveys. Years since registration date also suggests an over representation of older voters. Our sample respondents were also a bit more partisan than the sample population. We over represented Democrats by 4% and Republicans by 3.3% and therefore under represented “other” and “decline to state” voters by 7.3%. Given that this is an off-year election and self-identified

partisans vote more than non-partisans, our numbers may reflect differences between voters and non-voters in our sample.<sup>9</sup>

[Table 1 about here]

Table 2 shows the mean difference between the sample population and the sample respondents by mode of survey. We see a very similar pattern: there is no gender difference, but there is an age difference. Interestingly, the age difference is much more prominent in the mail sample than in the Internet sample (-17% versus -2.5%), suggesting that in this case the mail survey especially assisted in over representing older voters. This is also the case for registration date. With regard to party registration we see once again that the mail survey actually helped to over represent major party affiliation by greater amounts than the Internet respondents.

[Table 2 about here]

Table 3 breaks down the data further by filtering by state and comparing differences between each state sample population and the sample respondents. Here we also include comparisons of representation within several cities. Geographically over three quarters (77%) of NMCD1 is in the city of Albuquerque and Albuquerque represents 84% of NMCD1 voters, so we compare Albuquerque residents to non Albuquerque residents. In Colorado we focus our attention on four Denver suburbs: Arvada, Aurora, Golden and Lakewood.

[Table 3 about here]

Table 4 breaks the state data out further by comparing within state differences across survey mode. Gender in both sample populations provided nearly identical and insignificant differences across states and across states by survey mode. Despite previous coverage issues

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<sup>9</sup> This is a testable proposition. If we merge 2006 vote data into our file and delete non-voters from the sample population we could re-compare across these characteristics. It is possible that we come closer to the sample population of voters since our sample respondents were in the end voters. This is additionally likely given that voter registration files are very dirty and have large numbers of “inactive” voters included.



related to gender, it appears that we do not see that difference here. Age differences between states and between state and mode are very similar. Respondents in both state samples were older than our sample population and the mail survey option increased that substantially. Registration years, which also reflects the age bias, shows the same pattern. It appears that the New Mexico sample is responsible for the differences we see between the sample population and respondents for partisan affiliation. In Colorado, there is no difference between the sample respondents and the sample population either when the mail and web surveys are combined or they are separated. We, however, see statistically significant differences in New Mexico by mode. Once again, it appears that the option of the mail survey increased this bias substantially. In terms of our city variables, we actually under-represented Albuquerque by about 4.8% and that appears to be due to the Internet survey, the mail survey actually represented the sample population on this dimension. We see that 3 out of 4 of the Colorado cities were represented in proportion to their sample population parameter and this is true for the Internet sample as well.

[Table 4 about here]

Table 5 compares the election results by state to our sample survey results and voter mode (Election Day, absentee or early) to our sample respondents without consideration of mode of interview. We find that our survey results accurately represented the election outcomes in the congressional districts. Using a one-sample t-test, we compare each candidate's election outcome to the sample outcome. For each candidate we find no significant differences using an alpha level of less than .05. However, across voting modes we find substantial differences. In Colorado and New Mexico, we under-represented Election Day voters. In Colorado this meant that we over-represented absentee voters and early voters, but in New Mexico we over-represented only early voters. Thus, while we represented the outcome well, we did not do well

at representing the variety of ways voters vote. Of course, we do not know if such variation across voting mode would have any biasing affect for voters overall in our survey questions, so it is difficult to know what this latter finding means.

[Table 5 about here]

Table 6 breaks down the election outcomes by state and mode. Interestingly, we see no general trend across survey mode. Both modes in both states predict the race outcome very well.

[Table 6 about here]

Overall, Tables 1 through 6 show an interesting picture. In many ways our sample respondents reflected very well our sample population. This is especially true with gender and in terms of predicting the general election results. On these dimensions we also do equally well with either survey mode. However, our sample was slightly older than it should have been and in New Mexico we over represented active partisans. This latter finding could be a function of a very competitive race where both parties were actively mobilizing their base. If we were to limit our sample population to just voters, we might see a different outcome. More interestingly perhaps, when a bias was present, it appeared that in general the mail population magnified it. This suggests that perhaps that a mixed-mode survey in this case was not necessary. Coverage rates may now be high enough so that a mixed-mode option may not be necessary.

### **Differences in Attitudes and Behaviors of Mail and Internet Respondents**

Given the similarities in format, we argue that Internet or mail based surveys result in largely similar findings across survey mode. However, we also recognize that Internet use is biased with larger numbers of men and younger users and therefore while we expect no differences based on survey mode with regard to the surveys substantive questions, we do expect to see some differences demographically in choice of survey mode.

Table 7 shows the demographic results by survey mode and there are some striking differences that demonstrate that the digital divide still exists. We find that our mail respondents were much older (52 versus 67), much more female (53% versus 59.3%), less white (85% versus 71%), had lower incomes (\$40,000-\$49,000 versus \$70,000-\$79,999) and lower education levels. However, web and mail respondents were equally likely to be homeowners. Clearly these are important demographics differences, suggesting that the mail and Internet survey combined to make a more accurate picture of the electorate demographically.

[Table 7 about here]

Recall, however, that given the lack of format differences between survey mode we do not expect many differences on the non demographic, substantive questions and when we do see them we expect them to disappear once we control for demographic characteristics. We examined every substantive political attitude and behavior in our survey. Table 8 identifies 16 survey questions where we see a significant difference in means between survey modes. As expected, however, once we control for age, gender, race (dummy variables for blacks and Hispanics), income, education and a dummy variable for state we find many fewer differences (only 5) for most of the measures.

[Table 8 about here]

Table 9 shows the difference in general election activity levels by survey mode. Campaign activities were for the House race and include: attending a meeting or a rally, fundraising, canvassing, convincing others, writing a letter to a magazine/newspaper or Internet site, advertising (e.g. sign, bumper sticker, button), contributed \$200 or less, contributed more than \$200. We also asked how they learned about the US House candidates in their district. These included: met him/her personally, attended a meeting or rally, contacted in-person by

candidate, party or interest group, received an e-mail from candidate, party or interest groups, contacted by phone by candidate, party or interest group, visited candidate, party or interest group web site, or read online or local newspaper. Finally, we also asked “how many days a week do you discuss politics with family or friends?” Interestingly, respondents are only significantly different on discussing politics. Web respondents devote more time to political discussion than do mail respondents. However, when we add the controls we find that this difference disappears.

[Table 9 about here]

Thus, while we see some evidence for mode differences in demographics, we see very few substantive differences between the web and mail respondents in their attitudes and behaviors. Both groups in the aggregate appear to be largely similar.

### **Response Rates Over Time and with Each Reminder**

We begin by noting the response rates across the survey modes as shown in Table 10. For the Internet surveys we see that our largest response, almost 2 in 5 (37%) registered voters, came after the initial contact letter. Response rates after each subsequent reminder postcard drops monotonically in its overall contribution with 29% after reminder postcard 1, 18% after reminder postcard 2 and 16% after reminder postcard 3. For mail respondents, the largest number of surveys were returned after reminder postcard 1 and 3. Given there was very little turn around time between the initial contact letter and reminder postcard 1 this is not too surprising. In both mail and Internet modes we see a rather large last wave compared to earlier drop offs. Reminder postcard 3 indicated to respondents that this was their last reminder and for them to please log on to the survey or call for a mail survey. This may have made a difference.

[Table 10 about here]

We see a response pattern with our Internet data in Figure 1 that shows that the postcards stimulated response rates. We see the largest peak immediately following each contact, though each successive wave shows a slightly smaller drop off. While most waves show a quick response and rapid drop off as the days pass from the initial or re-contact, the final wave shows a much more steady response. We believe this is largely due to huge weather problems in both New Mexico and Colorado over the 2006 holidays. A huge snow storm just before Christmas and New Year's Day delayed the processing and delivery of mail for days and even weeks in some places.

The mail survey, however, showed a much more staggered response as seen in Figure 2. Given that respondents had to call us and we had to get it in the mail and they had to return it to us, we would not expect to see the kind of spike from each postcard that we saw with the Internet survey. Such differences are relevant and important because web surveys offer an opportunity to reduce the time gap between an event and data collection leading to more complete and possibly more accurate surveys, especially when time is a component of the model.

[Figures 1 and Figure 2]

## **Conclusion**

We implemented a new survey research method design with a generally large cross-section of the population, registered voters. In our study, respondents were sent letters and then were requested to enter a URL or request a mail survey. This is different from more traditional Internet probability samples that have email contact for respondents. Our method gets generally strong reviews. For example, we were able to accurately represent the sample population in terms of gender and election outcomes, but our sample was slightly older and in New Mexico we did not tap into an accurate picture of the overall sample partisanship registration characteristics.

We also did not fare well in obtaining different voter modes (e.g. Election Day, early or absentee). Over-representation of age was largely a product of our mail survey. With regard to the partisan registration problem, it may be that if we narrowed our sample population to just voters that we would have a more accurate reflection of the sample population.

We still see the presence of the digital divide in key demographic features of our sample respondents and this suggests that differences across survey mode may still require a mixed-mode approach. We found that our mail respondents were much older, more female, less white and had lower income and education levels. However, we see no important differences between these groups in terms of their attitudes or behaviors.

Reminder postcards clearly mattered to response rates and pointing out in our final postcard that this was our last reminder appeared to increase response rates. However, our mail problems in both New Mexico and Colorado suggest that the quality of the mail service may be an important concern in terms of sample recruitment and in evaluating the quality of the sample.

Last, we would like to point out that in a previous iteration of this method, we fared better in terms of our response rate. The sample in this case was New Mexico's 2004 caucus voters, a more activist sample and we received about a 25% response rate (see Atkeson and Tafoya 2005). This may suggest that Internet surveys are better at capturing activists who likely have more resources that promote interest in the topic and thus personal reasons for making the effort to complete the survey and whose greater resources make it more likely to have access to the Internet and consequently the survey.

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Appendix A  
Sample Contact Letter

November 7, 2006

Dear NAME & ADDRESS:

This election year was very important and exciting as we decided which party would control Congress and which candidates would best represent our national and local interests. Your part in this drama as a registered voter, whether or not you participated in the election, is especially important to the health of our democracy. We would like your help in assessing the congressional campaign in your district and your experiences with the election process. Given recent electoral controversies and changes in election law it is important to understand how well our democratic process is working. Thus, we seek your help. Only a few citizens from your district were randomly chosen to participate in this study and, therefore, your participation is extremely important to the success of this valuable research, which will be given to policymakers through our research reports.

We have placed an Internet survey online at: <http://votenewmexico.unm.edu> (please note there is no www or @ sign, just type this address into your web browser, such as Internet Explorer). We would greatly appreciate if you would take the 15 minutes to complete our survey.

If you do not have access to a computer, we still need the vital information you possess! Please **request a mail survey** by calling our toll free number at 1-(866)-568-6455. We will mail it out immediately at no cost to you.

You will notice at the top of this form an identification number next to your name (ID#: XXXX), please use this number when the survey asks for it. This identification number is for internal purposes only so we may check your name off of the list when your survey is complete. Please be assured that your answers will be held in complete confidentiality. We will only use your answers in a statistical summary and your answers will never be associated with your name. Your participation is, of course, completely voluntary, so if there are questions that you would prefer not to answer, simply skip them and go on with the survey.

If you have questions or need assistance *in any way*, please call us at the toll free number above, or our offices at 1-505-277-7592 or 1-970-491-5751, or e-mail us at [atkeson@unm.edu](mailto:atkeson@unm.edu) or [kyle.saunders@colostate.edu](mailto:kyle.saunders@colostate.edu).

If you have other concerns, please contact the Institutional Review Board at the University of New Mexico, 1717 Roma NE, Room 205, Albuquerque, NM 87131, (505) 277-2257 or toll free at 1-866-844-9018.

We look forward to hearing from you! Thanks!



Lonna Atkeson  
Professor  
University of New Mexico



Kyle Saunders  
Assistant Professor  
Colorado State University



Appendix B  
Sample Reminder/Contact Postcard

Dear New Mexico Registered Voter:

A couple of weeks ago we sent you a letter telling you about our 2006 Election Administration Survey. We know you are extremely busy, but you are part of a select group of people we have asked to participate and therefore your response is extremely important to the success of our project.

Please assist us by taking a few moments to complete our fun Internet survey! The study's web address appears below. Please note there is no www or @ sign in the web address. Also, please be assured that your answers are confidential. So we can check your name off our list, please use your identification code, which is located right above your name on the mailing label of this post card (e.g. ID#XXXX).

**<http://votenevmexico.unm.edu/>**

Your participation is completely voluntary. If there are questions that you prefer not to answer simply skip them. If you have any question about this project, **or would prefer a mail survey**, please call me toll free at 1-866-568-6455, or at my work phone at 1-505-277-7592 or contact me via e-mail at [atkeson@unm.edu](mailto:atkeson@unm.edu).

We look forward to hearing from you!

Thank you,

A handwritten signature in black ink that reads "Lonna Atkeson". The signature is written in a cursive style with a long, sweeping underline.

Lonna Atkeson  
Professor  
University of New Mexico

Table 1. Representativeness of Survey Respondents to Sample by Gender, Age, Party Registration, and Registration Date

	Sample Mean of Respondents	Sample Population Mean	Difference (Population – Respondents)
Percent Male	47.0	46.0	- 1.0
Age	56.4	50.0	- 6.4 ***
Registration (In Years)	15.7	12.5	- 3.2 ***
Percent Registered Democrat	44.7	40.7	- 4.0 *
Percent Registered Republican	37.1	33.8	- 3.3
Percent Registered No Major Party	18.2	25.5	7.3 ***

Note: \* p < .05, \*\* p < .01, \*\*\* p < .001

Table 2. Representativeness of Internet and Mail Survey Respondents to Sample by Gender, Age, Party Registration, and Registration Date

	Mail Difference (Population – Respondents)	Internet Difference (Population – Respondents)
Percent Male	6.0	-2.0
Age	-17.0 ***	-2.5***
Registration (In Years)	-5.9 ***	-2.1***
Percent Registered Democrat	-6.0	-4.1*
Percent Registered Republican	-6.8	-1.6
Percent Registered No Major Party	12.8 ***	5.7***

Note: \* p < .05, \*\* p < .01, \*\*\* p < .001

Table 3. Representativeness of New Mexico and Colorado Survey Respondents to Sample Population by Gender, Age, Party Registration, Registration Date, City

	New Mexico Difference (Population – Respondents)	Colorado Difference (Population – Respondents)
Percent Male	-1.0	-1.0
Age	-5.0***	-5.0 ***
Registration (In Years)	-0.9*	-5.0 ***
Percent Democrat	-9.6***	1.8
Percent Republican	-2.4	-2.7
Percent Other Party	12.0***	0.9
Albuquerque	4.8*	
Arvada		-1.9
Aurora		3.6
Golden		0.4
Lakewood		- 17.1 ***

Note: \* p < .05, \*\* p < .01, \*\*\* p < .001

Table 4. Representativeness of New Mexico and Colorado Mail and Internet Sample Respondents to Sample Population by Gender, Age, Party Registration, Registration Date, and City

	NM Mail Difference (Population – Respondents)	NM Internet Difference (Population – Respondents)	CO Mail Difference (Population – Respondents)	CO Internet Difference (Population – Respondents)
Percent Male	6.0	-3.0	6.0	-2.0
Age	-16.6 ***	-1.9 *	-17.8 ***	-3.1 ***
Registration (In Years)	-3.0 ***	-0.4	-11.3 ***	-4.1 ***
Percent Democrat	-9.3	-9.7 ***	0.3	2.1
Percent Republican	-9.0	-0.6	-2.7	-2.7
Percent Other Party	18.3 ***	10.3 ***	2.4	0.6
Albuquerque	2.6	5.4 *		
Arvada			0.5	-2.5
Aurora			0.5	3.8
Golden			1.8	0.1
Lakewood			-1.5	-5.7 *

Note: \* p < .05, \*\* p < .01, \*\*\* p < .001

Table 5. One Sample T-test Comparing Election Outcomes and Mode of Vote by State

	New Mexico		Colorado	
	Actual Percent	Sample Percent	Actual Percent	Sample Percent
Democrat	50.0	51.7	54.9	59.8
Election Day	54.2	41.8***	39.7	21.6***
Absentee	24.3	27.6	50.3	60.3***
Early Voting	21.4	30.5***	10.1	18.0***

Note: \*\*\* p < 0.001

Table 6. Comparison of Election Outcomes with Sample Results by Interview Mode

	Actual Results	Survey Results	Difference (Actual – Survey)	N of Respondents
New Mexico				
Democrat - Mail	50.0	52.6	-2.6	95
Democrat - Web	50.0	51.5	-1.5	334
Colorado				
Democrat - Mail	54.9	52.1	2.8	48
Democrat - Web	54.9	61.1	-6.2	301

Table 7. Demographic Difference of Means Test by Survey Mode

	Web Respondents	Mail Respondents	Difference (Web - Mail)
Age	52.4 (679)	67.1 (141)	-14.7***
Percent Male	46.7 (670)	40.8 (149)	6.4
Income	8.1 (589)	5.3 (125)	2.8***
Education	4.6 (687)	3.9 (150)	0.74***
Percent Home Owners	90.3 (683)	90.4 (146)	-.1
Race – Percent Hispanic	11.5 (659)	16.0 (144)	-4.5
Race - White	84.4 (659)	77.1 (144)	7.4
Race - Other	4.1 (659)	6.9 (144)	-2.8

Note: \*\*\* p < .001, n is in parentheses

Table 8. Attitude Differences by interview Mode, No Controls and Controlling for Age, Gender, Race, Income Education, and State

	Significant Difference of Means	Significant With Controls
Number of Days Watched TV News in the Past Week	Yes***	No
Voted Absentee	Yes**	No
Voted on Election Day	Yes**	No
No One Encouraged Respondent to Vote	Yes***	No
Did not Have to Show Id to Vote	Yes***	Yes***
Never Had a Problem with Voting	Yes***	Yes*
Enjoyed Voting with the Method Used	Yes**	No
Agrees that Proof of Citizenship should be Required to Vote	Yes*	No
Agrees that They are Qualified to Participate in Politics	Yes*	No
Agrees that Public Officials Care what Respondent Thinks	Yes**	Yes*
Ideology of Democratic House Candidate	Yes***	No
Ideology of GOP House Candidate	Yes**	No
Ideology of George Bush	Yes**	No
Level of Trust in Government	Yes***	Yes***
Satisfaction Level with 2006 fall election	Yes**	Yes*
Voted in primary election in August	Yes***	No

Note: \* p < .05, \*\* p < .01, \*\*\* p < .001

Table 9. Activity and Party Commitment Difference of Means Test by Interview Mode

	Web Respondents	Mail Respondents	Difference (Web-Mail)
Average Number of Campaign Activities Reported	1.03 (718)	1.23 (151)	-.204
Average Number of Learning Activities Reported	5.05 (718)	4.74 (151)	.308
Number of Days Per Week Spent Discussing Politics With Family or Friends	3.25 (577)	2.58 (146)	.667***

Note: \*\*\* p < .001

Table 10. Percentage of Response Rates by Interview Mode

	Internet Respondents	Mail Respondents	Total Respondents
Original Letter Mailed (Nov. 3 CO, Nov. 6, NM)	36.9 (265)	18.9 (28)	33.8 (293)
Reminder Postcard 1 Sent Nov. 16 (CO), Nov. 17 (NM)	28.7 (206)	31.8 (47)	28.5 (257)
Reminder Postcard 2 sent Dec. 1 (NM), Dec. 4 (CO)	18.2 (131)	19.6 (29)	18.5 (155)
Reminder Postcard 3 sent Dec. 19	16.2 (116)	33.8 (50)	19.2 (166)
Total	82.9 (718)	17.1 (148)	100.0 (866)

Figure 1. Internet Response Rate by Date Within Wave

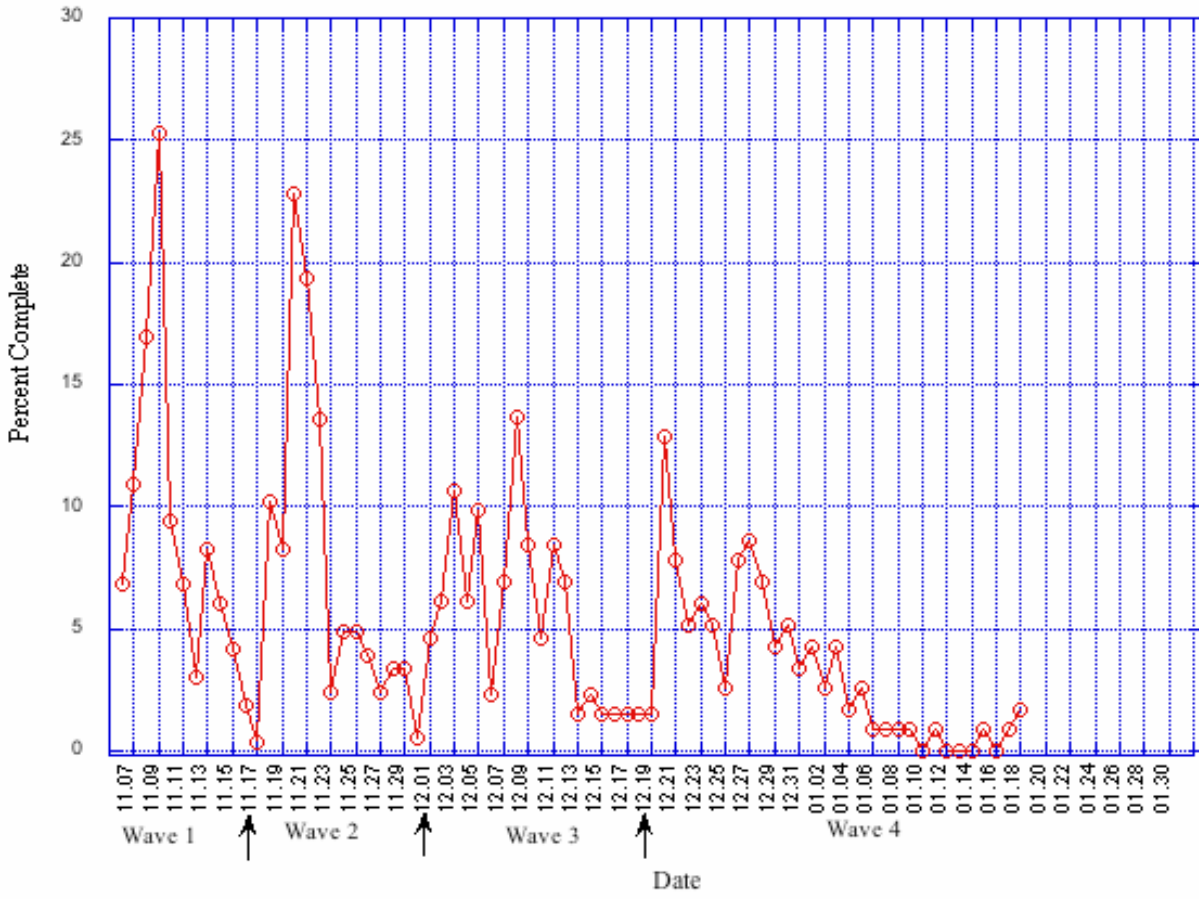


Figure 2. Mail Response Rate by Date and within Wave

