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Methodology of the RAND Midterm 2014 Election Panel

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Preface

This report describes the methodology to be used for the RAND Midterm 2014 Election Panel. It describes the analysis plan for research sponsored by internal funds from the RAND Corporation. Research will be conducted with in the Labor and Population Unit at RAND using the American Life Panel. We thank an anonymous reviewer and Rebecca Kilburn for their comments.

Abstract

The RAND Midterm 2014 Election Panel uses the American Life Panel (ALP) to study voting intentions, public opinion, and voter behavior. The ALP is a scientifically recruited Internet panel. Using the ALP allows us to contact the same people over time to study the evolution of their voting intentions, behavior, and opinions. Furthermore, we follow previous RAND election surveys by asking respondents about their voting intentions in probabilistic terms (percent chance), which improves forecasts. This document provides a detailed description of our methodology.

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Abbreviations

ALP	American Life Panel
CPS	Current Population Survey
MTEP	Midterm 2014 Election Panel

Introduction

The RAND Midterm 2014 Election Panel (MTEP) uses a unique approach to study the evolution of public opinion, voting intentions, and voter behavior. Rather than surveying a new cohort of respondents, MTEP contacts the same set of respondents each week. For many respondents, we can link responses to previously collected voting intentions, opinions, and behavior. We do this by fielding our surveys in the RAND American Life Panel (ALP).

We build on the findings of Delevande and Manski (2010) and Gutsche et al. (2014), who use a different approach to measuring voting intentions. Rather than asking respondents if they intend to vote and who they will vote for, we ask respondents about the probability of voting and the probability of voting for a particular party. These papers also draw on surveys conducted in the ALP. Unlike these previous studies, ours includes a number of additional questions about public opinion. Gutsche et al. (2014) and Kapteyn et al. (2012) describe in detail how an election poll can be implemented in the ALP. We base much of our methodology on theirs.

Our methodology has two primary contributions relative to traditional polling. First, the use of a panel allows us to link responses to previous reports. This allows us to gain a better understanding of changes in voting intentions and behavior. Not only will we investigate how intentions change leading up to the election, but also, for many respondents, we will be able to look at the past voting behavior. Second, the use of intentions expressed in probabilities can shed greater insight into voters in the middle. For those who are certain who they will vote for, simple questions can gauge their intentions; for those who are undecided, probabilistic questions can provide more insight into what they may do. These benefits helped to contribute to the accuracy of predictions in the Continuous 2012 Presidential Election Poll, one of the most accurate predictors of the popular vote in 2012 (Silver, 2012). While some recent literature has questioned how many voters are truly in the middle, the combination of these methods can be particularly valuable: It will allow us to assess whether those who do not report strong preferences, reporting probabilities other than 0 or 100 percent, or who do not align strongly with either party do, in fact, vote consistently over time.

Sample

Survey participants for MTEP are drawn from the RAND American Life Panel (ALP). The ALP began surveying respondents in December 2003; since that time, more than 400 surveys have been fielded. The ALP is a scientifically recruited nationally representative internet panel.¹ Unlike opt-in Internet surveys, Internet access is not required to participate; those who do not already have Internet access or computers are provided with them. Panel members are recruited using address-based sampling and random digit–dial sampling. Over the history of the ALP, recruiting methods have evolved. Detailed information about the sample composition and the past recruiting methods can be found at our Panel Composition web page.²

As a part of this project, we have refreshed the panel. Recruitment is still ongoing, and is not currently reflected on the website. Between 800 and 1,000 people will be recruited to join the panel. Potential new members were initially contacted through the ORC Caravan Survey, a weekly survey of 1,000 respondents contacted through random digit–dialing of both landline and cell phone numbers. ORC contacts respondents over the course of four days (Thursday through Sunday), with target numbers based on gender and region. Additional information about the ORC Caravan Survey can be found at the ORC International website.³

At the conclusion of the survey, respondents are asked if they are willing to be contacted by RAND to participate in another survey. Our questions were included in ten weekly waves of the ORC Caravan. Of the 10,000 contacted by ORC, 2,745 agreed to be contacted by RAND. Those who agree to be contacted provide an email address and/or phone number. Those providing an email address receive an email invitation to participate in a screener survey. They are recontacted by email with reminders once per week over six weeks. They are also contacted by phone if they have not responded, both as a reminder and to confirm email addresses. Those without email addresses are contacted by phone and offered the opportunity to receive a paper version of the screener survey. The initial screener survey takes about ten minutes and includes a variety of questions designed to confirm that the respondents are representative of the population, and to give them a flavor of what the ALP is like. Respondents to the screener survey are asked if they would like to join the ALP. All respondents are paid \$10 for this survey. To date, approximately 897 have taken the screener survey and 881 have agreed to join; those who agree are added to the panel. Respondents will continue to be added to the ALP and final response rates will be updated

¹ The ALP also has several nonprobability-based subsamples. These respondents, including snowball samples and within-family referrals, are excluded from this research.

² <https://mmicdata.rand.org/alp/index.php?page=panelcomposition>

³ <http://www.orcinternational.com/SiteCollectionDocuments/CARAVANTelephoneOnesheet.pdf>

upon the completion of the recruitment. To date, 697 have taken their first survey in the ALP. As in the past, respondents who do not have computers or Internet access will be provided with them. Upon joining the ALP, they are eligible to participate in future surveys, including an initial survey made up of past questions from the ALP. The screener survey and this initial survey will allow us to have baseline data on these panel members that is similar to some of the past information collected in the ALP. While it would be prohibitively expensive to field all 400 past surveys to each new member, these two surveys touch on many of the significant past topics.

Combining the previously recruited panel members with the new ones, we anticipate approximately 5,000 potential respondents to our surveys. Actual participation may vary. Our MTEP sample is limited to U.S. citizens. Table 1 provides summary statistics of the demographic characteristics of our sample with and without weights, which are described in detail below.

Table 1: Panel Member Characteristics

Variable	Unweighted	Weighted to CPS	CPS (Weighted)
Age	50.2	47.3	46.9
Male	42.5%	47.8%	48.1%
Race			
White, non-Hispanic	61.7%	69.9%	65.5%
Black, non-Hispanic	11.6%	8.5%	11.5%
Hispanic	22.1%	18.6%	15.2%
Other	4.4%	3.0%	7.7%
Household Size	2.8	3.0	2.9
Education			
Less than high school	5.8%	8.5%	12.4%
High school	16.7%	31.7%	29.5%
Some college	24.5%	20.3%	19.5%
College	35.6%	27.0%	28.2%
Advanced degree	17.3%	12.5%	10.4%

Surveys

Each week, beginning at midnight on Sunday, September 28, 2014, all panel members will be invited to participate in a short survey of six to nine questions. There will be five surveys conducted prior to the midterm election. Each survey will remain in the field for seven days, closing at 11:59 p.m. the following Saturday night. A sixth survey will begin Wednesday, November 5, immediately following the midterm election. Respondents will receive \$2 for each two-minute survey, and \$3 for one three-minute survey. Respondents will receive a bonus \$3 payment for participating in at least five of the six surveys.

During the first five surveys, we will assess voting intentions three times, in weeks 1, 3, and 5. Voting intentions will be assessed with two questions. Our methodology and question wording are derived from that of Delevande and Manski (2010) and Gutsche et al. (2014). Because this is a midterm election, respondents are asked about their intentions to vote in the House and Senate elections. Respondents in states not holding Senate elections are only asked about House elections. Voting intentions are assessed through two questions. First, respondents will be asked:

Q1. There will be a general election in your state in November, including an election for the member of the U.S. House of Representatives from your district [and the U.S. Senator from your state], plus other state and local offices. [There will also be an additional special Senate election in your state to fill a vacated position.]

What is the percent chance that you will vote for the following offices in the upcoming election?

The percent chance can be thought of as the number of chances out of 100. You can use any number between 0 and 100. For example, numbers like 2 and 5 percent may be ‘almost no chance,’ 20 percent or so may mean ‘not much chance,’ a 45 or 55 percent chance may be a ‘pretty even chance,’ 80 percent or so may mean a ‘very good chance,’ and 95 or 98 percent chance may be ‘almost certain.’

- House ____%
- [Senate ____%]
- [Senate (Special)____%]

Parenthetical information is only provided in states holding elections for senators, including Oklahoma and South Carolina, where there are both regular and special Senate elections being held this year. The description of probabilities included in question 1 is similar to that included in other surveys as described in Manski (2004). The order of House and Senate are randomized, with Senate and special Senate elections always kept together for Oklahoma and South Carolina. Second, respondents are asked generic congressional ballot questions, which ask about the party they intend to vote for, rather than specific candidates.

Q2.If you do vote in the elections for the U.S. House of Representatives [and U.S. Senate], what is the percent chance that you will vote for the Democratic candidate? And for the Republican? And for someone else? Please provide percent chances in the table below.

	Democrat	Republican	Someone else	Total
House	____%	____%	____%	[auto]%
[Senate	____%	____%	____%	[auto]%
[Senate (Special)	____%	____%	____%	[auto]%

The order of the Democrat and Republican columns will be randomized, as are the order of the House and Senate rows. The total will automatically be summed as people type in their responses. If responses do not sum to 100, an error message is shown that says: “Your total does not add up to 100%, please return to the previous question and fix your answers.” Only responses between zero and 100 will be allowed, to avoid problems faced in the previous election poll, where respondents gave inappropriate responses such as 1,100 percent and –1,000 percent.

Polling for and participation in midterm elections differ from those of presidential elections. In part, this is because it is much more costly to determine the likely outcome of each individual election. If 1,000 respondents are required to have a margin of error of +/-3 percent for a presidential election poll, 1,000 respondents for each separate House and Senate election would be required to predict the outcomes. Using these questions, the MTEP can give a prediction of the likely outcome of the House vote, where the per-party popular vote is a good indicator of the likely party breakdown of the House. Generic polling questions are often used for this reason; see, for example Abramowitz (2010), Bafumi et al. (2010), McGhee and Baldassare (2004), and Moore and Saad (1997). As such, we follow the methodology from Gutsche et al. (2014) and Kapteyn et al. (2012) to predict the likely popular vote for each party in the House.

Weighting

As with other surveys, we apply weights to ensure that our results are representative of the population overall. Our analyses will contain two types of approaches. For some, we will draw significantly on previous data collected in the ALP, either as part of this project or from previous years. At other times, we will focus on cross-sectional data, using results from one survey.

With cross-sectional data, we use a raking algorithm to match the characteristics of our sample to that of citizens ages 18 and older in the 2013 Current Population Survey (CPS). We match on age, gender, race/ethnicity, education, household size, and income distribution, as well as the joint bivariate distributions of race and gender, education and gender, age and gender, and income and household size. To create weights, it is necessary to account for missing values of certain weighting variables for some observations. We impute missing values sequentially, beginning with the more basic (and less-frequently missing) demographic traits of gender, age, and citizenship, which replace missing values with the modes of each variable. The remaining missing variables are then imputed using linear regression for continuous variables and logistic regression for discrete variables (including multinomial logistic regression or ordinal multinomial logistic regression for discrete variables with more than two outcomes). Missing values are rare in these data, with less than 0.5 percent of values missing for each variable used in weighting.

When we use data from more than one survey, we will use a two-stage weighting procedure. The first step matches that used for cross-sectional data. In the second step, we use inverse probability weights to account for factors that may predict participation in the second survey. Factors to be included in the inverse probability weights include demographic characteristics, past voting behavior, and/or party preference. For respondents who did not participate in the 2012 election polls, this information is also being collected as part of the MTEP. Inverse probability weights are calculated using a regression model to predict who participates in the second survey. The results of these regressions may be of interest in and of themselves. Literature on political polling suggests that participation in polls may be biased by current events, with individual respondents' likelihood of participation varying depending on current events. Our methodology will also allow us to look at whether the likelihood of participating in the surveys varies from week to week.

Predicting Election Results

While predicting voter behavior is only a part of what these data will allow us to do, it is important to spell out the methodology in detail. Here, we draw heavily on Kapteyn et al. (2012). Additional details can be found there.

Likely voter turnout can be calculated as the weighted average of the reported probability of voting:

$$Turnout = \sum_i w_i Q1_i$$

where w_i is the weight and $Q1_i$ is the response to question 1 for individual i . Weights are calculated as described above. The expected percentage of the vote for each party can be calculated as

$$Popular Vote = \sum_i w_i Q1_i \frac{Q2J_i}{100}$$

where J represents party, (Democrat, Republican or other).

Standard errors are calculated in accordance with those discussed in Kapteyn et al. (2012).

Additional Analyses

In addition to looking at voter behavior, our data collection will also allow us to do a number of additional analyses. In these cases, analyses will differ depending on the specific topic. These will often draw on historical data collected in the ALP, but will also address new and timely topics. In particular, voting intentions for both the House and Senate elections could be compared to voting intentions and behavior from previous presidential elections. For respondents who participated in the 2012 election polls, we will compare responses from past ALP surveys conducted in 2012. For all respondents, we will also collect information about voting behavior in 2012 during the second wave of our surveys. Table 2 highlights some of the topics we might cover.

Table 2: Survey Contents and Timeline

Survey	Survey Date	Survey Topics	Number of Questions
1	9/28/2014	Voting probability questions	2
1	9/28/2014	Political preference	2
1	9/28/2014	Information sources	1
1	9/28/2014	Stress	1
1	9/28/2014	Cars	2
1	9/28/2014	Government redistribution responsibility	1
2	10/5/2014	Marijuana legalization	2
2	10/5/2014	Children sports	1
2	10/5/2014	Past voting behavior	1
2	10/5/2014	Election result expectations	1
2	10/5/2014	Stress	1
3	10/12/2014	Voting probability questions	2
3	10/12/2014	Causes of income inequality	1
3	10/12/2014	Gay marriage	2
3	10/12/2014	Stress	1
4	10/19/2014	Vacation	2
4	10/19/2014	Global warming	2
4	10/19/2014	Stress	1
4	10/19/2014	Still open	1
5	10/26/2014	Voting probability questions	2
5	10/26/2014	Family mobility	1
5	10/26/2014	Outlook for country	1
5	10/26/2014	Stress	1
5	10/26/2014	Still open	1
6	11/5/2014	Actual voting	2
6	11/5/2014	Outlook for country	1
6	11/5/2014	Stress	1
6	11/5/2014	Still open	2

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