CSDI Center for the Study of Democratic Institutions
VANDERBILT UNIVERSITY
PMB 505 • 230 APPLETON PLACE • NASHVILLE, TENNESSEE 37203-5721 • TEL 615-322-3175 • FAX 615-343-6003 • VANDERBILT.EDU/CSDI

ABOUT THE MAY 2015 VANDERBILT UNIVERSITY POLL

This survey was sponsored and funded by the Center for the Study of Democratic Institutions at Vanderbilt University. It was conducted by interviewers at Princeton Survey Research Associates International (PSRAI; www.psrai.com), who also calculated the appropriate sampling error (taking into account design effects) and associated weights to be used in analysis (described in greater detail below). Telephone interviews were conducted in English by Princeton Data Source from April 23-May 9, 2015.

This survey was the 11th iteration of the Vanderbilt Poll. The Poll routinely contracts with PSRAI in the manner mentioned above, and PSRAI uses probability methods to randomly select individuals to be interviewed.

This iteration of the Vanderbilt Poll marks the first time surveying exclusively registered voters over the age in the state of Tennessee. To reach respondents, PSRAI used a sample constructed by Catalist (www.catalist.us). Three independent samples were pulled from their Tennessee registered voter sample frame. The first was a simple random sample of 56,600 drawn from all records with a phone number.[1] Two additional samples were drawn to account for the fact that younger registered voters and those with no landline telephone access were likely underrepresented in the sample frame. The second sample of 3,600 was drawn from records with an age of 18-35 and a phone number. Finally, the third sample of 20,000 was drawn from records without a phone number. Those numbers were sent to have cell phone numbers appended. A total of 3,749 cell phone numbers were appended to that sample file. Ultimately, this survey's sample was of 1,001 adult registered voters living in Tennessee. Eight hundred and sixteen (816) interviews were conducted by landline and 185 were conducted via cell phone.

As many as five attempts were made to contact every sampled telephone number. The sample was released for interviewing in replicates, which are representative subsamples of the larger sample. Using replicates to control the release of sample ensures that complete call procedures are followed for the entire sample. Calls were staggered over times of day and days of the week to maximize the chance of making contact with potential respondents. Each phone number received at least one daytime call when necessary.

For the landline sample, interviewers asked to speak with the person named in the sample file. If there were two or more respondents with the same name at that number, interviewers asked for the respondent who is registered to vote at that address. For the cellular sample, interviews were conducted with the person named in the sample file. Interviewers verified that the person was in a safe place before administering the survey. Once the target respondent was on the phone, interviewers confirmed that they lived in Tennessee and are registered to vote before conducting the full interview.

[1] The database included approximately 3.85 million total records of which 2.15 million had a phone number.

All statistical estimates are adjusted to account for systematic non-response as well as a disproportionate sample design in order to ameliorate any loss in statistical efficiency. A two-stage weighting procedure was used to weight this dual-frame sample.

The first stage of weighting corrected for different probabilities of selection associated with the number of adults in each household. Only one record was sampled for each household so that those respondents in households with more than one registered voter had a smaller probability of being sampled. The first stage adjustment was simply the reciprocal of the number of listed household members. The second stage of weighting balanced sample demographics to population parameters. The sample is balanced to match Tennessee registered voter parameters for sex, age, race, and region. The basic weighting parameters were provided by Catalist's Demographic Profile of Registered Voters in Tennessee.

Weights were trimmed to prevent individual interviews from having too much influence on the final results. The use of these weights in statistical analysis ensures that the demographic characteristics of the sample closely approximate the demographic characteristics of the population. Table 1 compares weighted and unweighted sample distributions to population parameters.

Table 1: Sample Demographics

	Parameter	Unweighted	Weighted
Gender			
Male	44.6	48.2	44.9
Female	55.4	51.8	55.1
Age			
18-29	17.0	3.4	15.7
30-34	8.6	2.7	8.8
35-44	16.8	7.9	17.1
45-54	18.2	13.2	18.5
55-64	17.8	24.8	18.1
65+	21.6	48.1	21.8
Race/Ethnicity			
White/not Hispanic	81.7	85.9	81.8
Other	18.3	14.1	18.2
Region			
East	37.1	39.3	37.1
Nashville	23.3	20.5	23.0
Central	20.6	22.6	20.9
Memphis/West	19.0	17.7	19.0

Table 2 reports the disposition of all sampled telephone numbers ever dialed from the original telephone number samples. This study's response rate for the landline samples was 11 percent; the response rate for the cellular samples was 9 percent. Response rates are computed according to AAPOR standards using the formula below.

Table 2. Sample Disposition

Landline	Cell	
316	75	Non-residential/Business
0	----	Cell in landline frame
316	75	OF = Out of Frame
3,503	1,544	Not working
183	10	Computer/fax/modem
3,686	1,554	NWC = Not working/computer
587	68	$UHUO_{NC}$ = Non-contact, unknown if household/unknown other
3,594	1,100	Voice mail
100	29	Other non-contact
3,694	1,129	UO_{NC} = Non-contact, unknown eligibility
2,565	631	Refusals
709	467	Callbacks
3,274	1,098	UO_R = Refusal, unknown if eligible
5	20	O = Other
----	3	Child's cell phone
103	56	Out of state / Not registered
103	59	SO = Screen out
130	21	R = Refusal, known eligible
816	185	I = Completed interviews
12,611	4,209	T = Total numbers dialed
66.7%	60.7%	e1 = $(I+R+SO+O+UO_R+UO_{NC})/(I+R+SO+O+UO_R+UO_{NC}+OF+NWC)$ - Est. frame eligibility of non-contacts
90.2%	77.7%	e2 = (I+R)/(I+R+SO) - Est. screening eligibility of unscreened contacts

		CON = [I + R + (e2*[O + UO_R])]/[I + R + (e2*[O + UO_R + UO_{NC}]) + (e1*e2*$UHUO_{NC}$)]
51.4%	54.2%	
20.9%	17.2%	COOP = I/[I + R + (e2*[O + UO_R])]
		AAPOR
10.8%	**9.3%**	**RR3=I/[I+R+[e2*(UO_R+UO_{NC}+O)]+[e1*e2*$UHUO_{NC}$]] = CON*COOP**

Including adjustments for design effects, the resulting margin of sampling error for the complete set of weighted data in this survey is ± 4.30 percentage points at a confidence level of 95%. In analysis of questions that required random half samples of respondents, we further adjusted the margin of error to reflect the greater imprecision associated with smaller samples.[2] Appropriately weighted data were used for all analyses. All data analysis was conducted using STATA SE Version 13, which allows for adjustment of standard errors for complex sample designs.

The questionnaire used in this survey, along with topline results, is available at www.vu.edu/poll.

For more information, please contact Shannon Meldon-Corney, Program Coordinator, at the Center for the Study of Democratic Institutions at (615)-875-6954 or at csdi@vanderbilt.edu.

Charter Member
AAPOR Transparency Initiative
AMERICAN ASSOCIATION FOR PUBLIC OPINION RESEARCH

[2] For more information about these questions and their corresponding sample sizes, please refer to the questionnaire and our topline results at www.vu.edu/poll.