April 3, 2012

I. Survey Methodology

The Elon University Poll is conducted using a stratified random sample of households with telephones and wireless telephone numbers in the population of interest – in this case, citizens in North Carolina. The sample of telephone numbers for the survey is obtained from Survey Sampling International, LLC. Methodological information is also available at: http://www.elon.edu/e-web/elonpoll/methodology.xhtml.

Selection of Households

To equalize the probability of telephone selection, sample telephone numbers are systematically stratified according to subpopulation strata (e.g., a zip code, a county, a state, etc.), which yields a sample from telephone exchanges in proportion to each exchange's share of telephone households in the population of interest. Estimates of telephone households in the population of interest are generally obtained from several databases. Samples of household telephone numbers are distributed across all eligible blocks of numbers in proportion to the density of listed households assigned in the population of interest according to a specified subpopulation stratum. Upon determining the projected (or preferred) sample size, a sampling interval is calculated by summing the number of listed residential numbers in each eligible block within the population of interest and dividing that sum by the number of sampling points assigned to the population. From a random start between zero and the sampling interval, blocks are systematically selected in proportion to the density of listed household "working blocks." A *block* (also known as a *bank*) is a set of contiguous numbers identified by the first two digits of the last four digits of a telephone number. A working block contains three or more working telephone numbers. Exchanges are assigned to a population on the basis of all eligible blocks in proportion to the density of working telephone households. Once each population's proportion of telephone households is determined, then a sampling interval, based on that proportion, is calculated and specific exchanges and numbers are randomly selected. The methodology for the wireless component of this study starts with the determining which area code-exchange combinations in North Carolina are included in the wireless or shared Telcordia types. Similar to the process for selecting household telephone numbers, wireless numbers involve a multi-step process in which blocks of numbers are determined for each area code-exchange combination in the Telcordia types. From a random start within the first sampling interval, a systematic *n*th selection of each block of numbers is performed and a two-digit random number between 00 and 99 is appended to each selected *n*th block stem. The intent is to provide a stratification that will yield a sample that is representative both geographically and by large and small carrier. From these, a random sample is generated. Because exchanges and numbers are randomly selected by the computer, unlisted as well as listed household telephone numbers are included in the sample. Thus, the sample of telephone numbers generated for the

population of interest constitutes a random sample of telephone households and wireless numbers of the population.

Procedures Used for Conducting the Poll

The survey was conducted Monday, March 26th, through Thursday, March 29th, of 2012. During this time calls were made from 5:00 pm to 9:00 pm on Monday through Thursday. The Elon University Poll uses CATI system software (Computer Assisted Telephone Interviewing) in the administration of surveys. For each working telephone number in the sample, several attempts were made to reach each number. Only individuals 18 years or older were interviewed; those reached at business or work numbers were not interviewed. For each number reached, one adult is generally selected based on whether s/he is the oldest or youngest adult. Interviews, which are conducted by live interviewers, are completed with adults from the target population as specified. Interviews for this survey were completed with 534 adults from North Carolina. For a sample size of 534, there is a 95 percent probability that our survey results are within plus or minus 4.24 percentage points (the margin of sampling error) of the actual population distribution for any given question. For sub-samples (a subgroup selected from the overall sample), the margin of error is higher depending on the size of the subsample. When we use a subsample, we identify these results as being from a subsample and provide the total number of respondents and margin of error for that subsample. In reporting our results, we note any use of a subsample where applicable. Because our surveys are based on probability sampling, there are a variety of factors that prevent these results from being perfect, complete depictions of the population; the foremost example is that of margin of sampling error (as noted above). With all probability samples, there are theoretical and practical difficulties estimating population characteristics (or parameters). Thus, while efforts are made to reduce or lessen such threats, sampling error as well as other sources of error – while not all inclusive, examples of other error effects are non-response rates, question order effects, question wording effects, etc. – are present in surveys derived from probability samples.

Questions and Question Order

The Elon University Poll provides the questions as worded and the order in which these questions are administered (to respondents). Conspicuous in reviewing some questions is the "bracketed" information. Information contained within brackets ([ ]) denotes response options as provided in the question; this bracketed information is rotated randomly to ensure that respondents do not receive a set order of response options presented to them, which also maintains question construction integrity by avoiding respondent acquiescence based on question composition. Some questions used a probe maneuver to determine a respondent's intensity of perspective. Probe techniques used in this questionnaire mainly consist of asking a respondent if their response is more intense than initially provided. For example, upon indicating whether s/he is satisfied or dissatisfied, we asked the respondent "would you say you are very 'satisfied'/'dissatisfied'". This technique is employed in some questions as opposed to specifying the full range of choices in the question. Though specifying the full range of options in questions is a commonly accepted practice in survey research, we sometimes prefer that the respondent determine whether their perspective is stronger or more intense for which the probe technique used. Another method for acquiring information from respondents is to ask an "open-ended" question. The open-ended question is a question for which no response options are provided, i.e., it is entirely up to the respondent to provide the response information.

The Elon University Poll

The Elon University Poll is conducted under the auspices of the Center for Public Opinion Polling, which is housed in the Department of Political Science and Public Administration at Elon University. These academic units are part of Elon College, the College of Arts and Sciences at Elon University. The Elon University administration, led by Dr. Leo Lambert, President of the university, fully support the Elon University Poll as part of its service commitment to state, regional, and national constituents. Elon University students administer the survey as part of the University's commitment to experiential learning where "students learn through doing."

II. Survey Instrument and Percent Distributions by Question

Interviews were completed with 534 adults from households in the North Carolina. For a sample size of 534, there is a 95 percent probability that our survey results are within plus or minus 4.24 percentage points (the margin of sampling error) of the actual population distribution for any given question. The questions are presented in the order in which these appear on the survey instrument. Due to rounding, column totals may not equal 100 percent as indicated. Data are weighted to reflect the adult population in terms of age.

About the Codes appearing in Questions and Responses	
Response Options not offered	Response options are not offered to the person taking the survey (respondent), but are included in the question as asked (and usually denoted by brackets, [ ]). Response options are generally offered only for demographic questions (background characteristic, e.g., age, education, income, etc.).
v = volunteered response	Respondents volunteer response option. As response options are not offered to those taking the survey, some respondents offer or volunteer response options. Though not all volunteered options can be anticipated, the more common options are noted.
p = probed response	Respondents self-place in this option or category. A probe maneuver is used in questions to allow the respondent to indicate whether her/his response is more intense than initially provided for in the choices appearing in the question. For example, on probe questions the interviewer, upon a respondent indicating that she/he is satisfied (or dissatisfied), is instructed to ask him/her "Would you say you are "very satisfied"?"

Q: GASBLAME

On a scale of 1 to 5, where 1 means "no blame at all" and 5 means "a great deal of blame," please tell me how much blame you think each of the following deserves for the recent increase in gas prices. . .

Scale: 1= "No blame at all" to 5= "A great deal of blame"

	(1)	(2)	(3)	(4)	(5)	Don't Know/ Refused (v)
Oil Companies	5.5	6.1	16.3	22.8	48.0	1.4
Foreign countries that produce oil	9.3	9.1	20.5	23.9	34.0	3.3
The policies of the Obama administration	20.0	20.6	14.6	14.8	27.6	2.4
The policies of the Republicans in Congress	14.7	18.7	27.0	16.8	18.2	4.7
Environmental regulations	16.1	20.9	24.2	14.9	18.7	5.2
The driving habits of American consumers	17.6	16.6	23.9	21.4	18.4	2.1
The policies of the Democrats in Congress	14.6	16.6	23.2	18.6	22.5	4.5

Total N=534 +/-4.24%

Q: ENERGY

I'm going to read you a list of potential energy sources and for each one I want you to tell me whether we should rely on it [more or less] to meet our country's future energy needs.

	MORE	LESS	Don't Know/ Refused (v)
Solar power	84.7	13.4	1.9
Wind power	79.6	15.8	4.6
Natural gas	70.0	22.4	7.6
Coal	30	62.9	7.1
Nuclear power	41.5	49.9	8.5
Oil	24.8	71.9	3.3

Total N=534 +/-4.24%

Q: FRACK1

How much attention—[a great deal, some, not very much, none at all]-have you paid to the news about “fracking” in North Carolina?

	Percent
A GREAT DEAL	15.7
SOME	23.4
NOT VERY MUCH	19.8
NONE AT ALL	24.8
DON’T KNOW (v)	16.3
Total	100.0 N=534 +/-4.24%

Q: FRACK2

Do you [support or oppose] the use of “fracking” to extract natural gas in North Carolina, or do you not know enough about it to say?

	Percent
STRONGLY OPPOSE (p)	10.4
OPPOSE	11.7
SUPPORT	14.1
STRONGLY SUPPORT(p)	7.1
DON’T KNOW ENOUGH ABOUT IT	56.7
Total	100.0 N=534 +/-4.24%