LION POLL

Report of Methods

Director's Questions

April 2019

TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

The Lion Poll is an omnibus survey conducted by the Center for Survey Research (CSR) at Penn State Harrisburg. A total of 1,054 self-administered web surveys were completed by adult Pennsylvanians between March 25 and April 10, 2019. The Lion Poll used a quota-based invitation system to produce a final dataset that is representative of Pennsylvania's population by region and, separately, by age/sex combined categories. Project activity was directed by Stephanie L. Wehnau, Director of the Center for Survey Research at Penn State Harrisburg.

The purpose of the Lion Poll is to provide timely and accurate data to agencies, organizations, and researchers with statewide interests and responsibilities. Sponsors of CSR's omnibus polls have used their results to track public policy issues; measure general attitudes, awareness, and knowledge of their organizations; and measure satisfaction with organizational services and performance.

Data Analysis Notes

The following notes should be taken into account when reviewing the final dataset:

1. Data are not weighted; however, the final dataset is representative of Pennsylvania's population by region and, separately, by age/sex combined categories.
2. Percentages may not total to 100% due to the exclusion of 'Don't know' responses.
3. See Appendices A and B of the report for a map and list of the Lion Poll regions.
4. See Appendix C for the sponsored survey questions and standard demographics that were used in data collection.

METHODOLOGY

Instrument Development

During March 2019, the CSR project team worked in consultation with the sponsor to develop and refine survey questions for use in data collection.

The instrument was programmed using Qualtrics web survey software. Qualtrics' online survey platform allows for complex question patterns and automatic skipping when appropriate to create a seamless flow from one question to the next for respondents.

Respondent Recruitment

CSR utilized Marketing Systems Group (MSG) of Horsham, Pennsylvania to recruit respondents who had previously signed up to participate in a variety of web survey panels in exchange for nominal compensation. These web survey panels were constructed utilizing a double opt-in recruitment technique. In a double opt-in system, the potential respondents provide their email address to indicate interest in participating in the panel. An automated email is then sent to the email address provided to ensure that the owner of the email address is aware of the intended use. Once the email owner confirms their interest in participating, the individual becomes part of the panel. After providing information on a wide variety of demographic topics to establish a panelist profile, the panelist is eligible to participate in future surveys. A double opt-in system guarantees that all respondents have provided explicit consent to be contacted for marketing and/or research purposes in compliance with all applicable federal laws.

MSG sent emails to potential respondents that included a customized link with a respondent identifier. This link took the potential respondent directly to the web survey programmed in CSR's Qualtrics account. Upon successful completion of the survey, CSR re-directed the respondent to the appropriate panel provider via a customized link that included the unique respondent identifier. As a result of this setup, only members of the CSR project team had access to the survey results and CSR never had access to any personally identifiable information of any of the survey respondents.

Response Quality

Regular panel maintenance was performed to ensure that high-quality respondents were being utilized in the Lion Poll. First, answers to demographic questions were periodically checked to make sure that they matched with the initial panel profile established by respondents. CSR also asked screening questions in such a way that the potential respondents did not know what characteristics were required for participation. Since panelists are paid for their participation, this decreases the chance of the respondent fabricating answers to gain access to the study. CSR also embedded attention check questions and straight-lining checks into the Lion Poll to confirm that the respondent was carefully reading and responding to questions. Straight-lining is when a respondent answers all questions in a series in the same way. To check for this, one item was included in a question series in two different ways: once with positive wording and once with negative wording. If a respondent is carefully reading the questions, they will answer these questions in contrasting ways. If a respondent participated in straight-lining or answered an attention check question incorrectly, their survey was immediately terminated and their response was removed from the final dataset. In addition, CSR identifies these responses as "low-quality," and panelists are excluded from participation in future surveys after three low-quality responses. Finally, CSR reviewed responses for other quality measures, such as survey duration (outlying surveys that were completed very quickly were removed), and applicability of open-ended responses to prevent automated (bot) responses from being included in the final dataset.

Sample Representation

Potential respondents were invited from the universe of all available panelists on the basis of the Pennsylvania county, age, and gender indicated in their panelist profile. These questions were also asked as screener questions at the beginning of the survey to guarantee that the respondent matched the expected profile. In order to ensure that the results of the Lion Poll were not biased toward any particular location, age, or sex, CSR programmed quotas into the Qualtrics web survey platform to guarantee that the final dataset would be representative of Pennsylvania's known population by region and, separately, by age/sex combined categories. Region quotas were developed by totaling Pennsylvania's population by county and then determining what proportion of the state's residents lived in the counties represented by each region.

Tables 1 and 2 display the proportions of respondents in the final dataset by age/sex category and by region. The data source used to establish quotas was the July 1, 2017 State Population Estimates, U.S. Census Bureau, Population Division. Since the final dataset was representative of Pennsylvania's population by age, sex, and region, weighting was not needed. For a map and list of the Lion Poll's regions by county, please see Appendices A and B.

Table 1. Final Responses by Age and Sex

	Interviewed	Census %
Male		
18-24 years	62	5.9%
25-34 years	90	8.5%
35-44 years	77	7.3%
45-54 years	86	8.2%
55-64 years	91	8.6%
65 years and over	103	9.8%
Female		
18-24 years	62	5.9%
25-34 years	86	8.2%
35-44 years	77	7.3%
45-54 years	89	8.4%
55-64 years	98	9.3%
65 years and over	133	12.6%

Table 2. Final Responses by Region

	Interviewed	Census %
Northern	77	7.3%
Central	98	9.3%
Northeast	172	16.3%
Southwest	214	20.3%
South Central	158	15.0%
Southeast	335	31.8%

It should be noted that respondents were not selected from the general population at random; rather, only respondents who opted to participate in a paid web survey panel were included in the sampling frame. In addition, as with all public opinion surveys, the results are representative only of those who chose to participate. As a result, certain biases exist that might prevent a direct comparison to Pennsylvania's general population. Namely, results may be biased against those who are less likely to participate in web survey panels (sample frame bias) or those panelists who chose

not to participate in this survey (non-response bias). In addition, although respondents who do not have access to the internet at home are less likely to sign up for web survey panels, they are not excluded from participating, and may do so through the use of public internet access, mobile phones, or internet at their place of employment. Finally, respondents received a small incentive to participate, although this is considered to be negligible in terms of overall survey bias.

To minimize these potential biases, key demographic responses were monitored and compared to Census data to ensure that the final sample was reflective of characteristics that are known to potentially bias responses. Rigorous efforts were employed to ensure that the characteristics of the respondents in the final dataset are representative of Pennsylvania's diverse population, despite the non-probability-based sampling method employed. Although the Lion Poll is considered to be a non-probability-based sampling method, the quotas utilized resulted in a final dataset that is representative of Pennsylvania's population by region, age, and sex.

Data Collection

Surveys were self-administered through Qualtrics Online Survey Platform. As mentioned previously, rigorous strategies were employed to ensure high-quality survey responses from trusted panelists. A 'soft launch' was performed where a working draft of the survey instrument was pre-tested with a small sample of respondents before full survey distribution began. The pre-test process ensured that the skipping patterns of the programmed survey instrument were functioning as intended. Pre-testing also increases the likelihood that the questions provide accurate data while decreasing the likelihood of collecting unusable data; therefore, it is an integral component of questionnaire design. The pre-test findings were reviewed, found to be error-free, and incorporated into the final dataset.

Survey responses were collected through CSR's Qualtrics web survey account between March 25 and April 10, 2019. Waves of survey invitations were sent by Marketing Systems Group to potential survey respondents based on the panelists' profile characteristics and the remaining region and age/sex quota needs. Respondents who indicated that they were at least 18 years of age and lived in Pennsylvania were deemed eligible to participate. Survey collection ended when CSR received 1,054 responses.

Data Preparation and Analysis Notes

All completed survey data were extracted from Qualtrics into Statistical Package for the Social Sciences (SPSS) software. Data were verified for accuracy of variable coding, and verbatim text was edited for consistency in formatting before final review by the senior staff of the Center for Survey Research. A survey dataset was created in SPSS for Windows version 25.0.

The following notes should be taken into account when reviewing the final dataset:

1. Data are not weighted; however, the final dataset is representative of Pennsylvania's population by region and, separately, by age/sex combined categories.
2. Percentages may not total to 100% due to the exclusion of 'Don't know' responses.
3. See Appendices A and B of the report for a map and list of the Lion Poll regions.
4. See Appendix C for the sponsored survey questions and standard demographics that were used in data collection.

PROJECT STATISTICS

The final dataset includes responses from 1,054 adult Pennsylvania residents. The average length of a completed survey was approximately 9 minutes. A total of 26,399 different panelists were invited to participate in the survey during data collection. The survey's response rate was calculated using the American Association of Public Opinion Research's Response Rate 3 (RR3) formula. RR3 is obtained by dividing the number of completed interviews by the sum of the numbers of completed interviews, partially completed interviews, refusals, and non-contacts. The response rate is then adjusted by estimating the proportion of cases of unknown eligibility based on the known proportion of eligible cases of all cases for which eligibility was determined. This is a conservative estimate that ultimately underestimates the true margin of error. AAPOR sets an industry standard for consistent reporting among survey researchers. For more information, see AAPOR's "Standard Definitions report" at http://www.aapor.org/Standards-Ethics/Standard-Definitions-(1).aspx.

The final survey response rate was 6.8%. It should be noted that this rate estimates for eligibility based on eligibility screening criteria (i.e., age and geography) and the utilization of quotas. The rate does not estimate eligibility based on the validity of the respondent's email address; therefore, the functional response rate is much higher than the reported rate. The response rate is largely influenced by the quotas employed to ensure that the final dataset is representative of

Pennsylvanians by age and sex category and, separately, by region. The reduced need for weighting ultimately improves the precision of the survey estimates, and response rate is considered to be less relevant in assessing the quality of web panel surveys.

Margin of Error

The margin of error for this survey is +/- 3.0 percentage points with the conventional 95% degree of desired confidence. This means that in a sample of 1,000 respondents where the distribution of responses is within the vicinity of 50%, there is a 95% chance that if the survey were repeated, the results would not differ from the survey findings by more than 3.0 percentage points. A more extreme distribution of question responses has a smaller error range. Suppose that 80% of the respondents answer "Yes" and 20% answer "No;" then the sampling error in this case is 2.4 percentage points. That is, each percentage has a sampling error of +/- 2.4 percentage points.

DEMOGRAPHIC PROFILE OF SURVEY RESPONDENTS

The following table displays the frequencies and percentages of survey respondents by key demographic characteristics.

Table 3. Demographic Profile of Respondents[1]

|	Number	Percent
Gender		
Male	509	48.3%
Female	545	51.7%
Age Category		
18-34 years	300	28.5%
35-64 years	518	49.1%
65 years of age or older	236	22.4%
Ethnicity		
Hispanic	38	3.6%
Non-Hispanic	1,013	96.4%
Race		
White alone	922	87.8%
Black - African American alone	87	8.3%
Some other race (includes 2+ races)	41	3.9%

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[1] Numbers may not add up to 1,054 due to rounding and the exclusion of "don't know" responses.

Table 3 (Continued). Demographic Profile of Respondents[2]

	Number	Percent
Educational Attainment		
High school diploma/GED or less	290	27.6%
Some college (including 2-year/technical degree)	401	38.1%
Four-year college degree	248	23.6%
Graduate work	113	10.7%
Household Income		
Less than $30,000	268	26.8%
$30,000 to $59,999	333	33.3%
$60,000 to $99,999	240	24.0%
$100,000 or more	158	15.8%
Region		
Northern	77	7.3%
Central	98	9.3%
Northeast	172	16.3%
Southeast	335	31.8%
South Central	158	15.0%
Southwest	214	20.3%
County Density		
Urban	770	73.1%
Rural	284	26.9%
Voter Registration		
Registered to vote	869	83.4%
Not registered to vote	173	16.6%
Political Affiliation		
Republican	336	39.4%
Democrat	378	44.4%
Other (inc. Independent, Libertarian, & No Affiliation)	138	16.2%
Political Ideology		
Conservative	356	36.3%
Moderate	345	35.2%
Liberal	280	28.5%
Child Status		
Minor children living in household	322	30.6%
No minor children living in household	732	69.4%
Household Size	**Mean**	
Total household size	2.71	
Number of adults living in household	2.16	
Number of minor children living in household	0.55	

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[2] Numbers may not add up to 1,054 due to rounding, as well as the exclusion of "don't know" responses.

APPENDIX A – MAP OF LION POLL SURVEY REGIONS
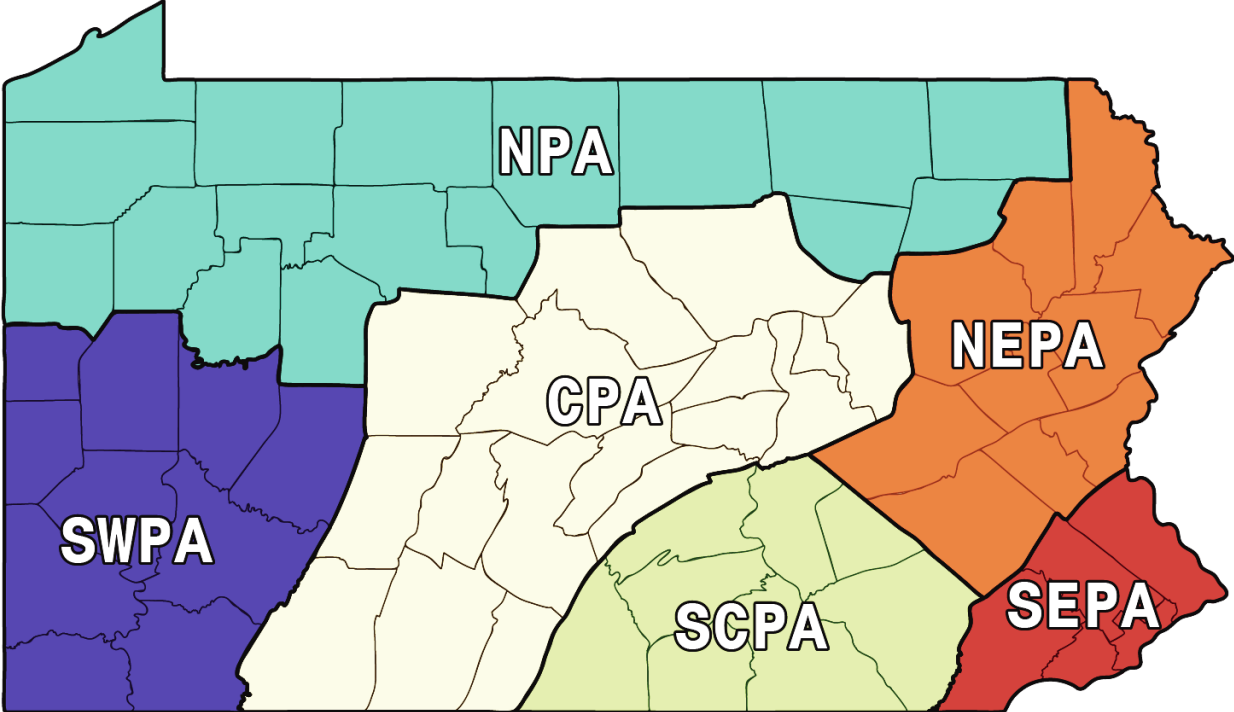
APPENDIX B – LIST OF LION POLL SURVEY REGIONS

Northern	Central	Northeast
Bradford	Bedford	Berks
Cameron	Blair	Carbon
Clarion	Cambria	Lackawanna
Crawford	Centre	Lehigh
Elk	Clearfield	Luzerne
Erie	Clinton	Monroe
Forest	Columbia	Northampton
Jefferson	Fulton	Pike
McKean	Huntingdon	Schuylkill
Mercer	Juniata	Wayne
Potter	Lycoming	
Sullivan	Mifflin	
Susquehanna	Montour	
Tioga	Northumberland	
Venango	Snyder	
Warren	Somerset	
Wyoming	Union	

Southwest	South Central	Southeast
Allegheny	Adams	Bucks
Armstrong	Cumberland	Chester
Beaver	Dauphin	Delaware
Butler	Franklin	Montgomery
Fayette	Lancaster	Philadelphia
Greene	Lebanon	
Indiana	Perry	
Lawrence	York	
Washington		
Westmoreland		

APPENDIX C – SURVEY INSTRUMENT

Intro.

You are invited to participate in a survey that is being conducted by the Center for Survey Research at Penn State Harrisburg.

Please click ">>" to tell us a bit about yourself.

State. In what state do you live?

○ Connecticut (1)

○ Delaware (2)

○ Maryland (3)

○ New Jersey (4)

○ New York (5)

○ Ohio (6)

○ Pennsylvania (7)

○ Virginia (8)

○ Some other state (9)

County. In what county do you live?

○ I do not live in Pennsylvania (777)

○ I don't know what county I live in (888)

○ List of Pennsylvania counties (1 → 133, FIPS codes)

Zip. What is your zip code?

_____

Gender. Which of the following best describes your gender?

○ Male (1)

○ Female (2)

Age. What is your age?

_____

Programming Note: If the respondent lives in Pennsylvania, provides their county, provides a valid Pennsylvania zip code, and is 18 years of age or older, they proceed to the survey. Otherwise, they are not eligible.

Inform. Thank you for that information. You are eligible to participate in the survey. Please read the following information carefully and indicate whether you agree to participate in the survey below.

Your participation is voluntary, and the survey takes about 10 minutes. All of your answers will remain confidential. No one on the research team has access to your personal information. You have the right to end the survey at any time. If you have any questions about the survey, please feel free to contact the Center for Survey Research at PSUsurveys@psu.edu. Your voluntary participation indicates your consent to participate in this research. For additional information, email the Center for Survey Research at PSUsurveys@psu.edu. Are you willing to participate?

○ Yes, I am willing to participate (1) → Continue to survey

○ No, I am not willing to participate (2) → End survey

○ Don't know / Not sure (9) → End survey

GUN_GEN. The next questions ask about gun laws in the United States. Do you think it is too easy to buy a gun in the U.S. today, too difficult to buy a guns in the U.S. today, or about right?

○ Too easy (-1)

○ Too difficult (1)

○ About right (0)

○ Don't know / Not sure (9)

GUN_SERIES. Please indicate whether you support or oppose each of the following.

	Strongly support (2)	Somewhat support (1)	Somewhat oppose (-1)	Strongly oppose (-2)	Don't know / Not sure (9)
Stricter gun laws in general (1)	○	○	○	○	○
Requiring background checks for all gun buyers (2)	○	○	○	○	○
Mandatory mental health screenings for gun buyers (8)	○	○	○	○	○
A nationwide ban on the sale of assault-style weapons (3)	○	○	○	○	○
Stricter regulations on ammunition sales (5)	○	○	○	○	○
More relaxed gun laws in general (15)	○	○	○	○	○
Please select Don't know for this response to continue. (9)	○	○	○	○	○
Retailers increasing the buying age from 18 to 21 for ammunition and guns (12)	○	○	○	○	○
Easier access to guns (6)	○	○	○	○	○
A ban on gun modifications that can make a semi-automatic gun work more like an automatic gun (7)	○	○	○	○	○

HUNT. Do you or does anyone in your household hunt?

○ No, no one in the household hunts (1)

○ Yes, only I hunt (2)

○ Yes, only someone ELSE in the household hunts (3)

○ Yes, both I AND someone else in the household hunt (4)

○ Don't know / Not sure (9)

MEDIA.
Next, you will see a variety of statements related to the media. Please indicate your level of agreement with each statement.

	Strongly agree (2)	Somewhat agree (1)	Somewhat disagree (-1)	Strongly disagree (-2)	Don't know / Not sure (9)
Fake news is a serious problem (FAKE)	○	○	○	○	○
I get my news from a variety of different news agencies or sources (NEWS_VAR)	○	○	○	○	○
I can trust the media to tell me the truth (MEDIA_TRUST)	○	○	○	○	○
Media reporters do a good job of checking facts before reporting them (FACT_CHK)	○	○	○	○	○
Media agencies tend to blow news out of proportion (MED_PROP)	○	○	○	○	○
Some media and news agencies are more trustworthy than others (MED_BETTER)	○	○	○	○	○

T_Dem. These last questions are for classification purposes only.

VoterReg. Are you currently registered to vote?

○ Yes (1)

○ No (2)

○ Don't know / Not sure (9)

If "Yes" to VoterReg, ask Pol_Affil.
Pol_Affil. What is your current **registered** party affiliation?

○ Republican (1)

○ Democrat (2)

○ Independent / No affiliation (3)

○ Constitution (4)

○ Green (5)

○ Libertarian (6)

○ Other (7)

○ Don't know / Not sure (9)

Pol_View. How would you best describe your political views?

○ Very conservative (1)

○ Somewhat conservative (2)

○ Moderate (3)

○ Somewhat liberal (4)

○ Very liberal (5)

○ Don't know / Not sure (9)

Ethnicity. Do you consider yourself to be Hispanic or Latino?

○ Yes (1)

○ No (2)

○ Don't know / Not sure (9)

Race. Which of the following best describe your race? You can select all that apply.

☐ White (1)

☐ Black or African American (2)

☐ Asian (3)

☐ American Indian or Alaska Native (4)

☐ Native Hawaiian or Pacific Islander (5)

☐ Something else (6) _____

☐ Don't know / Not sure (9)

HH_Adult. Including yourself, how many adults (18 or older) live in your household? If you live alone, please enter "1".

HH_Child. How many children under the age of 18 live in your household, regardless of whether or not they are related to you? If no children live in your household, enter "0".

Education. Which of the following categories best describes your educational level?

○ Less than a high school diploma or GED (1)

○ High school diploma or GED   (2)

○ Some college (3)

○ Two-year degree (Associate's) or technical degree (i.e., trade degree) (4)

○ Four-year college graduate (5)

○ Graduate work   (6)

○ Don't know / Not sure (9)

Income. What is your total annual household income, before taxes?

○ Under $10,000   (0)

○ $10,000 to $19,999   (1)

○ $20,000 to $29,999   (2)

○ $30,000 to $39,999   (3)

○ $40,000 to $49,999   (4)

○ $50,000 to $59,999   (5)

○ $60,000 to $69,999   (6)

○ $70,000 to $79,999   (7)

○ $80,000 to $89,999   (8)

○ $90,000 to $99,999   (9)

○ $100,000 to $109,999   (10)

○ $110,000 to $119,999   (11)

○ $120,000 to $129,999   (12)

○ $130,000 to $139,999   (13)

○ $140,000 to $149,999   (14)

○ $150,000 or more   (15)

○ Don't know / Not sure   (99)

End. Thank you for your participation! Please click ">>" to submit your survey.