APPENDIX

Appendix A
Checklist for Planning

Pre-Election Planning (3-6 months before the election)
- Create shared Dropbox or other online storage space for faculty to share documents.
- Establish which political units (and how many) you'd like to sample from. We found one county per state worked well in terms of balancing diversity of polling stations as well as distance students would have to travel. Using political units that align with election results reporting was also beneficial in case faculty wanted to merge in outside information (e.g., demographics, previous voting information, etc.)
- Get a rough count of how many students you'll have available.
- Figure out how much of your class you want this exit poll to play a role in. Make sure your syllabus has enough room to accommodate pilot design, practice sessions, and any post-election activities (or whichever subset of those you'd like to include.) Additionally, those of us who were lucky enough to have classes scheduled on Tuesdays found it easier to make the poll a larger part of the class since we knew students would have time they could dedicate to the poll on election day. This isn't necessary, of course, but it did make things easier.
- Determine if your institution has any restrictions or requirements for activities students must perform off campus. These include, but are not limited to:
  - Is it legal to make the exit poll a required part of the class? The schools involved in our poll differed on this. Some were fine with making it required provided we informed students of it the first day of class. Other schools were opposed to making it required and asked faculty to make it optional.
  - Do you need insurance? This answer will likely also vary across institutions. For some, insurance is not required if it is a required part of the class and students are made aware early on. For others, insurance for the day of the election can be purchased (this is generally a very reasonable cost, and one we would encourage faculty to use).
- Talk to your institution's IRB. Brief them on the exit poll and determine what training students will require. Start drafting the IRB paperwork early so you can submit it quickly after deciding on the questions for the instrument.
- Look up any laws related to exit polling for your area. In most cases, polling is allowed provided those doing the polling remain a certain distance from the polling station itself (similar to electioneering laws).
- Find a place to obtain the necessary number of clipboards and other supplies. We found uline.com to have good prices, but other online, bulk retailers could work as well.

Pre-Election Planning (2-3 Months Before the Election)
- Design and order t-shirts. If using the school's logo/official seal, be sure to work with a printing company that has a legal agreement with the school regarding its trademark. (4imprint was a company that worked well for our institutions, but there may be others). This will save you an enormous amount of running around since the printing company's legal department will already have contacts with the university.

They will handle the approval process for you and your shirts will look professional. See the online appendix for a picture of what our shirts looked like.

- Brainstorm questions for the online pilot (or, if you aren't doing a pilot, the instrument itself). After work-shopping them with your class, put the survey online and have students distribute it. As we noted before, if the results from the pilot stay internal to the class (i.e., they are not presented in a public format), IRB is not needed. Check with your home IRB to make sure they agree with this interpretation.
- Determine what, if any, survey experiments will be included. Figure out how you will indicate which treatment is present on any given survey. We used an unobtrusive number code in the bottom corner of our forms. When students were filling in the online survey during the data entry phase, all they had to do was enter the number and we'd be able to tell which version they had used.

Pre-Election Planning (1 Month Before the Election)
- Finalize the instrument and submit it for IRB approval. (If you are new to working with your institution's IRB, check with colleagues to see how long IRB approval at your institution typically takes. If it takes longer than a month, submit a preliminary draft earlier and a month before file an amendment to your application with final questionnaire changes.)
- Make sure all students have completed IRB training.
- Prepare a "protocol" sheet for students to follow that outlines state laws that pertain to exit polling, and what they should do the day of the election.
- Have colleagues who are unfamiliar with the survey take it to see if any questions are confusing.
- Finalize list of polling stations and start assigning student teams.
- Have students practice exit polling on campus.
- Program the online survey for data entry. Enter a few practice surveys to try to work out any bugs ahead of time.
- Book a conference room for data entry on Election Day.

Week Before the Election
- Make copies of the instrument.
- Assemble "packets" for each student. Each packet has three clipboards, one large envelope with 50 blank surveys, one large empty envelope to collect the completed forms, and extra pens (do NOT tie the pens to the clipboard).
- Inform students of their teams and polling locations.
- Inform your institution's public relations office about the exit poll.

Appendix B
Assignment examples

We used the exit polling experience and data to generate assignments for students in a variety of classes, spanning course subfield, size, focus, and level. Here, we group example assignments from these classes in two categories: substantive political science classes, and data analysis classes. Rather than attaching entire syllabi, which could be cumbersome, we have curated a list of specific assignments related to student-exit polling. We share a variety of details from each class to give a sense of the ways instructors can use this activity in their courses.

1. **Substantive Political Science Classes**

   a. **Upper-Division Seminar on Political Parties (American Politics)**
      - **Course description:** It has been said that democracy is unthinkable save in terms of parties. Today more than ever, perhaps, it is difficult to even discuss politics without reference to the parties. Since political parties permeate every aspect of most governments, any real understanding of civics requires an understanding of the roles that parties play. In this course, students will learn two frameworks with which to understand parties. First, they will learn the positive framework; what is the role of the political party. The second framework is normative; what should be the role of the political party. We will discuss these two frameworks in parallel, as understanding why parties are the way they can inform our beliefs about how they should be, and different arguments about how parties should be may influence what they are. Through various reading, writing, exit polling, and debate assignments students will learn to apply these concepts to historical, theoretical, and contemporary debates.
      - **Use of exit poll:** participation in exit polling was part of an extra-credit assignment, participation in which gave students the option to write their final paper on the experience. All students opted in.
      - **Assignment:** everyone in the class had to write a 5-10 page final paper. They had three options: 1) a book review of a political science book from a list I provided, 2) response to a prompt, or 3) answering a question about political science with the exit polling data. Most students chose option 3, producing many excellent papers. For assignment text, you can simply use your normal final paper rubric, but change the prompt to include exit polling.
      - **Breakout data session:** An unforeseen effect of the exit polling experience combined with the paper assignment was that many students became interested in data analysis. So many students wanted to run some basic analyses on the exit polling data for their papers that I conducted a breakout data session to teach students basics of data analysis in R. This was well attended, and student feedback indicated that they found stats less intimidating when they could view it as a tool to answer a question they had about data with which they were familiar.
   b. **Upper-division Seminar on Ideology in America (American Politics)**

- **Course description:** One of the defining characteristics of American politics today is that our parties are said to be ideologically "polarized." At the same time, leading political figures reject ideological labels and in some cases succeed through defying ideological orthodoxy. This course explores the nature, origins, dynamics and role of ideology in American politics. After completing this course, students will be able to address these questions: 1) What is ideology and where does it come from? 2) Why do different citizens disagree ideologically? 3) How ideological are citizens? 4) What differentiates liberals, conservatives and those with other ideologies? 5) To what degree are our politics defined by ideology? Why? 6) What are the consequences for politics of ideological conflict?
- **Use of exit poll:** exit poll participation made up 10% of the class grade. Students then had the option of analyzing the exit polling data in their final paper.
- **Assignment text:** This course gives a good example of how to make participation in exit polling itself the graded component (rather than an assignment using the exit polling data):

We have an opportunity this semester to help participate in an exit poll for the 2016 election. Participation in the exit poll in some way is expected. Students will do the following:
- Draft questions for a pilot survey (by Sept. 26)
- Analyze and discuss questions from the pilot
- Select questions for the Election Day exit poll (Oct. 12)
- Administer the poll on Election Day (Nov. 8)
     - Sign up by Oct. 31
     - This is the most labor-intensive part of the project. It should also be the most fun.
     - You will spend a few hours on Election Day at a randomly selected polling location, asking voters to take the poll.
     - Students will work in teams of 3 for a shift of about 3 hours.
- Entering respondent data into an electronic format.
     - If you cannot be available on Election Day to administer the poll, you will be expected to contribute more effort to data entry.
- Analyze the final data

c. **Upper-division Seminar on Political Behavior/Public Opinion**

- **Course description:** This course is an advanced seminar on voters in the American political system. Broadly, we will cover topics ranging from what factors influence how individuals vote to discussions of social groups, partisanship, opinions, and other characteristics that shape Americans as political actors. We will finish the semester discussing the 2016 elections. As this is an election year, you will be expected to keep up with the election season underway.
- **Use of exit poll:** This course only included exit polling as an option for extra credit (3 points). Slightly fewer than half of the students chose to participate.

- **Assignment:** In addition, a number of universities in the area will be conducting an exit poll on election day, November 8. If you are interested in participating in this, you can receive 3 points of extra credit. Students will be responsible for interviewing voters leaving polling places at pre-determined locations, in groups of 3.

2. **Data Analysis Classes**

a. **Upper-Division Seminar on Quantitative Analysis (International Relations)**
- **Course description:** This class serves as a comprehensive introduction to the quantitative study of international conflict. The vast majority of the class is about how to perform statistical analysis and how to use the associated software. International conflict is the topic of many of the readings that will serve as examples of the statistical techniques. A portion of every class will be "flipped" and students will have a chance to start work on the problem sets while the professor is present. This term we will also be adding a heavy dose of American politics by doing an exit poll on Election Day!
- **Use of exit poll:** This course used the exit poll to generate a final paper assignment. The exit poll was discussed on the syllabus as the core assignment of the class, including legal disclaimers drawn from University Policy.
- **Assignment text:**

Requirements:
- Paper cannot be more than 8 pages, double spaced, twelve pt Times New Roman font with one inch margins. You are allowed to put additional tables and graphs in the appendix.
- Graphs must be labeled and look professional.

Part 1:
- You must propose, justify, and test three hypotheses. This means, your model must have at least five variables (three independent, and two controls)
- One of the hypotheses must involve a dummy variable.
- You must show (where applicable) all the recoding you have done for each variable in the do file, which you will submit with the final paper.
- Present a graph for each variable (DV, IVs, and CVs) showing the distribution. Briefly discuss if there are any things to note in these distributions. These graphs should be put in the appendix.
- Part 1 has five models (presented all in one table). The first has IV1, the second has IV2, the third has IV3, the fourth has all the IVs at once, and the fifth has all of the IV's plus the controls. Discuss the significance of each variable and how things change (if at all) once you get to models 4 and 5.
- Provide a brief discussion of how your hypotheses fared.

Part 2:
- Interact one of your IVs with another variable.

- There will be two models. One with the original IV and the variable you are interacting it with entered separately, and then both in the same model with the interaction term.
- Provide a graph of the interaction using the margins command. This graph should be in the main text.
- Discuss your findings.

Part 3:
- Evaluate one of the experiments (see do file for how to test for this).
- There will be two models for Part 3. The first just has a test of the treatment effect, the second compares the difference (if any) of treatment effect across subsamples (e.g., comparing the effect in women and men).
- Provide a graph of the treatment effects across subgroups.

Part 4:
- Discuss at least one finding that you thought was surprising or that challenged the conventional political wisdom.
- If you could do the survey again, what would you do differently? What additional question do you wish would have been asked?

b. **Polling methods course (elective in Political Science, offered online)**
   - **Course description:** This course provides a basic introduction to the dynamics of designing, delivering, and analyzing an online survey. This course is designed to provide both an understanding and hands-on experiences with Qualtrics.
   - **Use of exit poll:** The goal of the course was for students to learn how to develop, field, and analyze their own survey. The exit polling data were used for one of the earlier assignments (a 15 point "Hands-on Data" Assignment) in the course to acquaint students with codebooks, question wording, what data from a survey look like in spreadsheet format, and basic options for descriptive statistics (this was not a course on statistical methods). Students were told that the data had been collected as part of an exit polling experience by fellow students in a political science class, which resulted in increased enthusiasm about using the data. Students then used the techniques learned through this assignment to analyze the results of their own surveys for their final project.
   - **Assignment text:**

   The purpose of this assignment is to give you some quick and easy tools to analyze survey data. I am providing you with real survey data as well as instructions on some basic analyses. Because this is not a course on data analysis, I will not require any statistical software. Everything you need to do here can be done in excel.
      - **Background:** These data come from an exit poll done of voters in Ohio, Maryland, Virginia, and DC on election day 2016. The poll was fielded by students at various Universities, including political science majors at your

University. The surveys were filled out in person, and students later transcribed them.

- **Materials:** I am including a codebook and a csv file.
  - Codebook: This includes all of the text of the survey questions. You will use this to match up the question number in the csv file to the question text and responses. Most of the answers have a numeric value next to them in parentheses, e.g. (2). This is what they're coded as in excel.
  - Data file: this Excel file includes the survey results. Each question is numbered "Q2" and so forth. You can match them to text in the codebook. These data are "clean", in that I have removed any inconsistencies or discrepancies.
  - Most survey data you encounter will contain a data file and a codebook, very similar to this

- **Assignment:** we will generally be using some basic commands as described here (link to external Excel tutorial)
  - **Choose your variables: 3 points**
    - Begin by going through the codebook and familiarizing yourself with the questions (e.g. the "variables"). Pick **2-5** variables you think are substantively interesting. For example, maybe you are interested in Q8 (who they chose for president) and Q21 + Q22 (whether they think media coverage of Clinton/Trump was fair). Locate them in the excel file also.
    - Copy and paste the columns that include your variables of interest into the "data analysis" sheet, which I've made into a kind of template. Delete the sample text I've put in.
  - **Report the following, using Excel's descriptive statistics (link to external resource): 5 points**
    - For each variable, calculate the mean.
    - For each variable, calculate the standard deviation.
    - This should just give you a general sense of what's going on with the distribution of each variable
  - **Make 2 graphs: 7 points**
    - Depending on your variables, the mean and SD won't tell you much. If you pick presidential vote, what you REALLY want to know is how many people voted for Trump, Clinton, etc. The easiest way to show this would be in a graph.
    - Make a bar graph of at least one variable. You can follow these instructions (link to external site). Tinker with it until it's pretty. Make sure it has descriptive labels, e.g. "Clinton" instead of "1".
    - Make a graph of your choice of at least one more variable. Make it pretty also.
  - **Other steps:** if you have any other ideas about how to analyze or present the data, go ahead!

- Up to **2 extra credit points** for creativity beyond the parameters of the assignment.
- Remember: Keep all your work in the excel file, including your tables or charts

c. **Introduction to Political Research Course (300-level)**
   - **Course description:** How do political scientists know what they know? This course will help you answer that question by not only teaching you about how professional researchers go about conducting empirical research but also by guiding you through the completion of an original research project. You will learn the basics of theory building, research design, and statistical analysis and interpretation. You will also become conversant in the statistical software program Stata. The knowledge you will gain in this course has numerous practical applications: you will better understand social science research studies discussed in other courses; you will be an intelligent consumer of media reports on scientific studies; and, finally, you will have the tools to carry out your own empirical research in the future.
   - **Use of exit poll:** students applied what they were learning in class through the process of conducting, analyzing, and presenting results from the exit poll. This was measured through a series of smaller assessments throughout the term.
   - **Assignment:** Exit polling provided the basis for the final project of the class (worth 35% of the grade). The exit polling project was broken down into six components: 1) conducting the exit poll (5%), 2) producing an annotated bibliography (5%), 3) forming a research design (5%), 4) Analyze data (5%), 5) Presenting a poster (5%), and 6) synthesizing these elements into a final paper (10%).

d. **Course on Applied Quantitative Analysis (400-level)**
   - **Course description:** Quantitative Political Analysis offers skills that are central to the understanding, appreciation and critique of political science research. The course also prepares students for doing their own research, especially of a quantitative nature. The course is highly recommended for ALL students considering a senior thesis or independent research as well as those considering an advanced degree. The skills acquired easily extend to research in American politics, public opinion, comparative politics, international relations, and other political science subfields. This class is designed to provide fundamental quantitative reasoning and applied research skills. After taking this course, students will both understand and know how to conduct basic research in political science using survey, experimental, and other empirical data. Moreover, students will comprehend the basic building blocks of political science inquiry, know how to do a

literature review, be able to formulate and test a research hypothesis of their own, and will become familiar with data analysis using STATA, a widely-known statistics program. Lastly, students will become more employable as a by-product of taking this course. Understanding data collection methods and being able to conduct basic data analysis using STATA are skills that translate readily to work conducted outside the classroom. Jobs in politics, marketing, public relations, business, etc. often require analytical skills like the ones taught in this course. In addition to preparing students for jobs, this class also provides the skills and research experience necessary to take more advanced quantitative reasoning courses, to conduct further research, or do well in graduate school.

- **Use of exit poll:** This course used exit polling as the basis for a final project. Participation in the exit polling exercise itself accounted for 10% of the course grade, and the final project in which students analyzed the data counted for an additional 25% of the grade.
- **Assignment text:**

Your final project in this course is a research paper. You will select a problem and review the appropriate academic literature, pose and test your own hypothesis.

1) Formulate a research question that can be answered using exit poll data that we have collected.
2) Develop an explanation about your research question (e.g. X causes Y, X causes an increase in Y, X and Y are positively related...)
3) State a formal hypothesis expressing this explanation
4) Read and learn from researchers who have tackled similar questions (Peer-reviewed literature only)
5) Analyze the data using the appropriate statistical method
6) Write a research paper where you present and discuss your findings
7) You must follow the paper format outlined below

Paper Expectations & Grading Criteria.
- State a clear hypothesis. You will be graded on the quality of your hypothesis. A good hypothesis posits a clear relationship between different factors, such as a correlation, or cause. It has to be testable. Part of formulating a good hypothesis is picking the right variables that allow you to test your hypothesis. (10 points)
- Review the appropriate literature. You will be graded on the relevance of the literature you chose. In other words, a good grade reflects that the articles you chose speak directly to your research question. You will be graded on your choice of sources. Are you using peer-reviewed political science, criminal justice or other appropriate sources? Do they talk about public opinion? Are they academic? Are they up-to date or otherwise significant? Are you using at least 5 sources? Are half of them from political science journals? Did you give enough detail? Did you compare and contrast the findings in the literature to each other and relate the findings to your hypothesis? Did you use the literature to show why your hypothesis is relevant?

- Did you summarize the literature and restate your hypothesis at the end of the literature review? (25 points)
- Method: Describe your method, including the exit poll data are that you are using (how it was collected, etc). State what statistical method you are using and why. How does your method allow you to test your hypothesis? Provide basic information about your variables (frequencies, descriptives). Talk about them. Test your hypothesis using at least one method and tell a story about what you find. Mention concepts from this semester, e.g. generalizability — showing off that you know something about sampling and can utilize that knowledge to talk about the validity of your findings. (50 points)
- Discuss your findings. Do they confirm your hypothesis? What are the implications of your research? How do they speak to your literature review? What should be done next? What do you think your results mean? What are the limitations (if any)? (This is where you get to state your own opinion. It is the only place in this paper where you get to offer your own thoughts. (15 points)

e. **Introductory Analysis of Political Data Course (200-level)**
   - **Course description:** Being able to understand and analyze data is a crucial skill, important for understanding public opinion, elections, political economy, international development, and much more. The key is to get beyond merely calculating mathematical quantities and to be able to understand conditions under which statistical relationships are more likely to represent real phenomena rather than incidental correlation. This course provides the foundation for sophisticated data analysis by introducing students to multivariate linear regression, with a particular emphasis on applying the tools to analyze political and policy data.
   - **Use of exit poll:** This course used student exit-polling as part of a cumulative final project.
   - **Assignment text:**

Our project for this semester will be the design, implementation and analysis of an exit poll on election day, November 8.
- **Timeline:**
  - By September 23, provide questions for prototype survey to be fielded using Qualtrics/Survey Monkey
  - By October 10, class will vote for our desired questions. The faculty investigators will then create finalized version.
  - By October 31, students will sign up for specific polling location and time.
  - November 8: students will work a shift polling voters as they leave their polling site. Students will work in teams of 3 (or more). Each student will work a shift of 3 hours.

- o The data will be available essentially immediately.
- **Final project:** Each student will analyze the survey and write a 1000-word paper (roughly 4 double-spaced pages, with additional length for figures). Students can work together to design questions. (In fact, this is a necessity as there will be limited space on the survey instrument.) We will begin this process together in class. Students must write the final project on their own. In doing so, students may collaborate on the data analysis with others and share, discuss and critique their work with others. The final product must be written individually. The paper must include the following elements:
  - o 1) A statement of a research question.
  - o 2) An explanation for why the research question is important and interesting. This will include at least some properly documented outside sources.
  - o 3) An analysis of the data, describing the statistical method and the result.
  - o 4) At least one figure that supports the analysis.
  - o 5) A conclusion that summarizes result, and discusses potential weaknesses and/or future research that could shed more light on the topic.
  - o 6) An appendix with the relevant R code and, as appropriate, statistical output from R (do be concise here).

f. Required introductory statistical methods class for an MA in American government program

- **Course description:** Analysis of Political Data is designed to increase your understanding of empirical analyses — both as a consumer and as a producer of such analyses. In this course, we will focus on basic statistical reasoning and tools that can be used to describe and learn about the world. In Part I of the course, we will study causation in the social sciences, descriptive statistics, probability theory and random variables. In Part II of the course, we will study inferential statistics (tools that we use to learn about a population from a sample), including simple comparisons between variables and an introduction to regression analysis.
- **Course learning objectives:**
  By the conclusion of the course, students should:
    i. Understand the logic of research design for causal inference with quantitative data.
    ii. Have a basic knowledge of probability theory and its use in classical hypothesis testing.
    iii. Be able to perform basic statistical inference, such as evaluating the mean of a population and the difference between two population means.
    iv. Be familiar with the basic statistical properties of bivariate and multiple regression analysis and how to use these techniques.

- **Use of exit poll:** This course used student exit-polling as the main dataset for the students' "Final Group Project." The project was due in the last week of class and was the final take home assignment following 6 problem sets. (There was also a midterm and final exam.) Unlike the problem sets, the group project needed to be written up in a polished "Data Memo."

- **Assignment text:**

General Description:

- In this project, you will use Stata to analyze some of the variables in our 2016 Student Exit Poll Data, which you helped to collect on Election Day (Nov. 9).

- This is not a random sample of the all Americans who voted on Nov. 9. Instead, it is voters from a random sampling of polling places in Washing DC, Arlington, VA, Prince William County, VA, Montgomery County, MD and Hamilton County, Ohio. The samples are only representative of these areas. While Prince William and Hamilton counties have more Republicans than the other areas, overall our sampling regions are more Democratic than the nation as a whole. So, rather than look at the overall levels of variables, we will look at how different variables are associated with each other.

- You must work in teams of 2 or 3 students and submit one data memo on behalf of the entire team. Each member of the team will receive the same grade as the other members of the team. You can choose your own groups, although I reserve the right to make small changes to the groups if necessary. Please have one person from your group e-mail me by Friday Dec 2 telling me whom is in your group.

- This project counts for 10 percent of your total grade for the course.

- Overall, in this project, you will:

  (1) get experience using an original dataset that you helped to collect;

  (2) gain additional expertise in using Stata;

  (3) select appropriate methods to answer questions;

  (4) apply the tools and concepts that you've learned in this course to gain insight into substantive questions;

  (5) convey your analysis in a concise, well-organized manner – in the form of a data memo.

Due Date and Expectations

The final project is due to me in my mailbox in [location omitted]. In addition to turning in your memo (which should include any tables and figures), please also turn in your Stata do file.

All work on this assignment must be discussed and performed *only by you and your team members*. For this project, it is not acceptable to work with (or get hints from) other groups or members of other groups. In other words, each group must independently analyze and write up your results for this project. This is a chance for you to show what you have learned this semester! However, you can still ask questions and get help from me and the [name of teaching assistant omitted].

As noted above, you can choose your own groups, although I reserve the right to make small changes to the groups if necessary. Please have one person from your group e-mail me by Friday, Dec 2.

Instructions For Writing Your Data Memo

Using the exit poll dataset, write a memo to me, addressing the following:

  (1)
    a. Describe some of the variables in our sample. What was the mean and standard deviation of thermometer ratings of Hillary Clinton? What was the mean and standard deviation of thermometer ratings of Barack Obama? What was the distribution of party identification of the people in the sample? What was the distribution of education levels? What was the distribution of household income levels? Finally, select two other variables to describe in this section of the data memo.

b. Provide a written description of each of these variables with a short paragraph. When you find it helpful, provide 95% confidence intervals around means and proportions. Pick three of these variables to illustrate with supporting tables or graphs (note: clearly label these).

(2) Use appropriate methods to answer the following questions.

a. Is there a gender gap in feeling thermometer ratings of President Obama? If there is a difference, describe whether it is statistically significant and how large it is.

b. Do thermometer ratings of President Obama differ between people who get their news primarily from physical newspapers and those who primary get their news from "social media such as Facebook and Twitter"? If there is a difference, describe whether it is statistically significant and how large it is.

c. What is the association between thermometer ratings of President Obama and Hillary Clinton? Describe the statistical significance and the size (i.e. substantive significance) of the association.

d. To explore the views of the American public in more depth, look at the association between annual household income and whether you agree or disagree with the statement: "Public officials don't care much about what people like me think." Test the statistical significance and describe the size of the association

Guidelines on Writing Data Memos

Your assignment should be in memo form with:

- A brief introductory / overview paragraph that describes the overall research question and has a *brief* review of your findings.

- A few short paragraphs (and any supporting tables) that convey descriptive statistics for the variables you use in the analysis and the general design of the survey.

- A separate paragraph for each of the questions/analyses (referring, when applicable, to supporting tables and figures). These should include a brief description of each question, including your informal expectations, and the formal null and alternative hypotheses you are testing; a brief description of your analytical approach (including a specific statement about the kind of statistical test you used) and findings (including discussions of both statistical significance and substantive significance).

- Discussion of the group(s) to which your analyses apply (i.e. to what population(s) do your findings generalize). This information may either be included in the paragraph for each question you address, or in a separate paragraph.

- A brief concluding paragraph.

- Tables and figures should be appropriately labeled and formatted (in other words, do not simple paste Stata output) and referred to at specific points in the body of the memo.

There is no strict page limit or word limit. However, as a guideline, I think you can complete your analysis in the <u>equivalent of about 3 single-spaced pages of text, plus tables and figures as needed</u>. Your memo may be longer or shorter, depending on your use of bullet points, spaces, size of tables, etc.

Do not turn in Stata output with your memo. It will be your responsibility to convey your findings and analyses through your memo, and in supporting tables or graphs that you create. Do not just cut and paste Stata output: format the information in tables and figures as you would in a "real" report.

Your memo should be accessible to TWO types of readers:

1) Readers who are not familiar with the language of statistics (e.g., an intelligent readers of a newspaper who has not had a class in statistics), and

2) Readers who will only believe statements you make if you show that you arrived at your answer using statistics (e.g. your instructor for this course).

How do you balance these two audiences?

- For audiences #1, it is your responsibility to appropriately interpret and translate your statistical analyses into language that is accessible to those who are not trained in statistics. This means being able to convey the gist of the "null hypothesis," "statistical significance," "generaliziability," etc. without actually using the terms (when you do use them, you must clearly explain them – not in stats jargon).

- For audience #2, you will want to include information about the type of tests you conducted, the test statistics you obtained, and p-values (perhaps in parentheses, or as supporting information to the statements you make for audience #1).

Appendix C
Select Student Feedback
Assignments that used these data were overwhelmingly popular among students. Because these were "authentic" assessments (meaning that they allowed students to connect course concepts with real world ideas and applications with some flexibility), students felt that they learned more and were more interested in the topic. Below is a collection of feedback from evaluations and papers

- **Qualitative evaluations:**
    - **"**Exit polling was a really great real world experience. Not many political science classes do this type of activity, and I was really happy to do it."
    - **"**Exit polling, because it allowed me to participate in this historic election, which is something I'm going to be telling my kids and grandkids about in the future"
    - **"**Exit polling went much better than I expected. I was dreading being at my polling location for a long time, but time flew by quite fast and it was interesting talking to those who were there."
    - **"**I liked the exit polling the most because it seemed like we were actually getting politically involved in a way that just wasn't possible if we were simply sitting in a class room."
    - **"**I enjoyed the exit polling experience. It was nice to be able to see hands on how some data is collected that political scientists use to write theories."
    - "I think for me, one thing that I have learned in the class that will make me a better consumer of survey data and results was how to find the distribution of data (i.e. standard deviation and mean). I think that not only knowing what these are, but knowing how to take raw data and find these and then apply them to a graph will allow me to be able to read, study, and understand data and research a lot easier in the future."
    - "One thing I have learned in this class that will make me a better consumer of survey data and results is that there are many ways to present the data, all of which skew the reader's interpretation. For example, in our last project, I could have made very different points with the results I charted together. I used the results for media fairness for Trump and Clinton to make a statement about the two individuals, but I could have made a chart for each candidate of media fairness and political party identification. I also think the way the data is presented in the charts is important and can be misleading. For example, making the scale huge when there are small numbers or the order of categories on an axis."
    - "Exit poll was definitely one of the highlights of the class. Would obviously be difficult to implement in a non-election year, but certainly was glad it was part of the course."
    - "I really liked being a part of something exciting, new, and relevant on election day. I liked being able to be nonpartisan and to tell people "no, I'm not for [candidate], I'm just a student from..." because it peaked their interest and broke them from the normal 'election day' routine. I enjoyed having

banter with the friendlier participants, and being able to elicit responses from both parties

- o My favorite aspect of this was looking through the surveys during data entry. It was fascinating to get this quick snapshot of a person, and to think about how sometimes disparate answers fit together. Looking through the surveys when I was entering them actually helped me rationalize why people would support certain candidates, and to start to understand the things they feel or fear. During my time at the polling place, I also enjoyed talking with the respondents who were interested in what we were doing and why. Some of them were very excited to be part of it, or wanted to see where they could see the results, which was nice.
- o Overall this was a really unique experience that I probably won't be able to have again in my undergraduate career. I was able to gain a new appreciation for surveys, coding, and the process that it takes to produce the large data sets that social scientists, especially political science people need to create in order to write good papers.
- o Everything, it was a lot of fun! Putting in data with a buddy was the best part! Plus, the stories from the polling places!
- o Lots of prep went into this so actually participating was great. Almost an adrenaline rush. The people who were like excited and interested to complete the survey were really exciting and fun to interact with.

- **Papers:**
  - o On limits of polling data: "The first example of inaccuracies in exit polling data is that it takes a certain type of person to fill out a survey or answer interview questions. My partner and I witnessed this first-hand when participating in exit polling."
  - o "In class, we have been talking about political parties, polarization, etc., throughout the whole semester. I think exit polling was a great real-life example of how some of these principles can be applied."
  - o "Participating in the exit poll allowed me to immerse myself for the first time more into the political process than ever before. Not only had I never voted in a presidential election due to my age, but I was able to be a part of other people's voting experience and collect this interesting data."
  - o "This opportunity has really changed my life. I was able to see how important the government was to the citizens of the United States. The exit polling results also gave me different ideas on what matters most when campaigning for different political positions."

Appendix D
Research examples

Exit polling data can also be used in the research of faculty (and students). Examples
include:

- One of the original students who conducted the exit poll went on to pursue an MA
  in political science. The student had difficulties in finding contemporary data on their
  question, but was able to bring in their exit polling data to answer the question in an
  original way.
- Faculty used these data to pilot questions they wished to use in other projects, and as
  a proof-of-concept. For example, one faculty investigator drew on these results in a
  project on the connection between the Tea Party and Donald Trump, a relationship
  which had been difficult to disentangle given the decreasing frequency of Tea Party
  items on more recent surveys. Exit polling data can be especially helpful to junior
  faculty, and/or faculty at institutions with lower research budgets.

STUDENT-RUN EXIT POLL

This is a voluntary and anonymous exit poll about current events and the election conducted by students and researchers at the University of Maryland, American University, Miami University, and Georgetown University. Answering this survey will take approximately 10 minutes or less. This poll is not official, and is not affiliated with Montgomery County, Arlington County, Prince William County, Hamilton County, or the District of Columbia. Your effort in answering these questions will make sure that the views of residents from your community are represented. You may decline to answer any or all questions at any point in the survey.

1 For whom did you vote for president today?
- [ ] Hillary Clinton
- [ ] Donald Trump
- [ ] Other_____
- [ ] Gary Johnson
- [ ] Jill Stein

2 Which of the following more accurately describes how you voted in the 2016 presidential election?
- [ ] I voted for my candidate because I like my candidate.
- [ ] I voted for my candidate because I dislike the other candidate(s).

4 For whom did you vote for U.S. House today?
- [ ] The Democrat
- [ ] The Republican
- [ ] Other_____

5 Do you think that Washington, D.C., should become a state?
- [ ] Yes
- [ ] No
- [ ] Don't Know

6 What do you think is the most important issue facing the U.S. today?
- [ ] Climate change
- [ ] Immigration
- [ ] Terrorism
- [ ] Other_____
- [ ] Economy and jobs
- [ ] Social and racial inequality

7 Compared with life today, the future of the next generation of Americans will be
- [ ] Much better
- [ ] Slightly better
- [ ] About the same
- [ ] Slightly worse
- [ ] Much worse

8 Did you vote in a Presidential primary election or caucus this year, and if so, for whom?
- [ ] Voted in a Democratic primary/caucus
      (and I voted for _____)
- [ ] Voted in a Republican primary/caucus
      (and I voted for _____)
- [ ] I did not vote in a primary/caucus

9 About how long did you wait in line to vote today? _____

10 In the last 12 months, have you engaged in any of the following political activities? Check as many as apply.
- [ ] Attended a political rally or protest.
- [ ] Displayed a political yard sign or bumper sticker.
- [ ] Attended a political meeting.
- [ ] Canvassed or campaigned for a candidate.
- [ ] Donated to a campaign, PAC, or party.
- [ ] Made phone calls for a candidate or party.

11 How confident are you that the votes in the presidential election will be accurately counted?
- [ ] Very confident
- [ ] Somewhat confident
- [ ] Not too confident
- [ ] Not confident at all

12 Do you believe Barack Obama was born in the U.S.?
- [ ] Yes
- [ ] No
- [ ] Not sure

13 How fair do you believe the media has been in its coverage of Hillary Clinton?
- [ ] Very fair
- [ ] Somewhat fair
- [ ] Neither fair nor unfair
- [ ] Somewhat unfair
- [ ] Very unfair

14 How fair do you believe the media has been in its coverage of Donald Trump?
- [ ] Very fair
- [ ] Somewhat fair
- [ ] Neither fair nor unfair
- [ ] Somewhat unfair
- [ ] Very unfair

15 Please rate the people or groups on a scale from 0 to 100. The higher the number, the warmer or more favorable you feel toward that person or group. The lower the number, the colder or less favorable you feel toward that person, country or group.
- _____ Hillary Clinton
- _____ Barack Obama
- _____ Black Lives Matter
- _____ Republican Party
- _____ Donald Trump
- _____ Vladimir Putin
- _____ Paul Ryan
- _____ Democratic Party

16 Generally speaking, do you usually think of yourself as a...
- [ ] Strong Democrat
- [ ] Not very strong Democrat
- [ ] Independent, leaning toward the Democrats
- [ ] Independent
- [ ] Independent, leaning toward the Republicans
- [ ] Not very strong Republican
- [ ] Strong Republican

17 How would you describe your political views?
- [ ] Very progressive
- [ ] Progressive
- [ ] Slightly progressive
- [ ] Moderate, middle of the road
- [ ] Slightly conservative
- [ ] Conservative
- [ ] Very conservative
- [ ] Not sure

18 How much of the time do you think you can trust the government in Washington to do what is right?
- [ ] Just about always
- [ ] Most of the time
- [ ] Only some of the time
- [ ] Almost never
- [ ] Not sure

19 Does anyone in your household own a firearm?
- [ ] Yes
- [ ] No
- [ ] Not sure

20 Do you believe Donald Trump and/or his supporters pose a threat to the country's future?
- [ ] Yes
- [ ] No

21 Do you believe Hillary Clinton and/or her supporters pose a threat to the country's future?
- [ ] Yes
- [ ] No

22 Do you agree or disagree with the Tea Party movement, or don't you have an opinion either way?
- [ ] Strongly disagree
- [ ] Disagree
- [ ] Neither agree nor disagree
- [ ] Agree
- [ ] Strongly agree
- [ ] Not sure

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