

Exam 1

Vietnam Draft and Political Attitudes

[YOUR NAME]

Due Date: 2025-02-28 by 11:59PM ET

If you utilized any assistance to complete this problem set (e.g., AI, Google), you should cite it here. (You are not allowed to collaborate with other students or communicate with any humans about the exam.) Type your answer here.

Instructions

- Total possible points: 16
- This exam is open-book, open-note, and open-internet. However, you are forbidden from communicating with other humans about the exam. This includes, but is not limited to: exchanging texts/emails/chats/DMs etc. about the exam; sharing notes about the exam or the course; posting material on the internet about the exam; asking for help with a question on the exam from online forums; requesting that someone produce materials that could be helpful for the exam. Basically, use your common sense and complete this assignment on your own.
- You may submit to Blackboard as many times as you would like, just like a normal problem set.
- Please write any written, non-code responses in the main text and not in the R code chunks. Also, do not include hashtags # in the main text except on the lines indicating ## Question or ## Answer.
- Please check your final PDF before uploading it and ensure that your written answers and plots are visible and correctly reflect your final answers. If I have to ask you to resubmit you will receive a late penalty (-1 letter grade for each day late).
- If you have a clarification question, please email me with your question. I will either say that I cannot answer the question or I will send a note to the entire class with the answer.
- Please do not post anything about the exam on Campuswire.
- You should use Tidyverse throughout.

Background

The exercises below are based on the following paper:

Green, Donald P., Tiffany C. Davenport, and Kolby Hanson (2019). “Are There Long-Term Effects of the Vietnam Draft on Political Attitudes or Behavior? Apparently Not.” *Journal of Experimental Political Science*. 6(2), 71-80.

This paper examines the long-term effects of the Vietnam draft lottery on the political attitudes and behavior of the men who were eligible for the draft during the period of 1969–1971. Based on birth dates, the draft lottery was used to randomly select men who turned 19 prior to 1969, 1970 and 1971 to serve in the US army. Many of those drafted did not comply with the draft and did not serve in Vietnam for various reasons,

including opposition to the war. The authors use a survey and publicly available information, such as voter registration, voter records and partisan membership of eligible draftees to study whether being assigned to the draft has any long-term political effects.

The data set `draft.csv` contains the following variables that were obtained from surveys conducted by the authors on draft-eligible men from 2014 to 2016.

Name	Description
<code>draft</code>	Whether a respondent was assigned to the draft (1) or not (0)
<code>year</code>	Birth year
<code>ideology</code>	How respondent describes their political views in 2014-16 survey. Takes values from 1 to 5 where 1 is “very conservative,” 2 is “conservative,” 3 is “moderate,” 4 is “liberal,” and 5 is “very liberal.”
<code>state</code>	Respondent’s living state in 2014

Question 1 (5 points)

Load the data and save it as an object called `draft`. Create a barplot of the ideology variable with the heights corresponding to counts in each category. Format this plot nicely with axis labels and informative labels for each bar the on barplot.

NOTE: you may have to abbreviate the ideology category labels to have them all fit on the plot.

Question 2 (2 points code; 2 points write-up)

Create a new binary variable, `liberal`, that is 1 if a respondent says they are liberal or very liberal and 0 otherwise. Use this variable to calculate the sample proportion of respondents that are liberal (i.e., the sample mean) by year that respondents were born in. Note that `ideology` (and thus `liberal`) has missing values in it and you should remove those observations from any calculations.

- Tips: Use `mutate()` to add the `liberal` variable and save that new data frame as `draft` again. You should save the `tibble` resulting from your calculations of the sample means as `liberal_year`. Use `select()` to make sure this tibble only has two columns: the year and the estimated ATE. Make sure I can see the results from this `tibble`.

Briefly interpret the result (a sentence will suffice).

Write answer here.

Question 3 (2 points code; 2 points write-up)

Events at an early stage of life can have a long-lasting impact on a person’s political perspectives. Let’s see if this is true for this setting. Estimate the sample average treatment effect of being drafted (`draft`) on being liberal (`liberal`) and save this value as `ate`.

Report your estimate in the write-up and briefly interpret the result in a sentence.

Write answer here.

Question 4 (2 points code; 2 points write-up)

Even if we assign the same treatment, respondent's characteristics can change its effect. In this question, we focus on birth year. Estimate the sample average treatment effect of being drafted on identifying as liberal in 2014 **by year of birth**.

- Tips: save the resulting `tibble` of your code as `ate_year`.

Write answer here.

Question 5 (2 points write-up)

Your co-workers Bobby Boxplot and Harriet Histogram are arguing about what the treatment should be in this study. Bobby says that the study should use whether the respondent actually served in Vietnam as the treatment, whereas Harriet says that it should be being drafted or not as we have done up until now. Given what you know about the setting, which of these two approaches would have higher internal validity? Discuss your reasoning briefly for your answer in two to four sentences.

Write answer here.