POL 138 Quantitative Reasoning in Political Science
KEY Practice Final Exam

Completing this practice exam is not worth points toward your POL 138 grade, but it might be useful to take the practice exam and check your responses against the key. Content on the Final Exam should closely match content on this Practice Final Exam, but with potentially different ways of measuring understanding of concepts, such as if short answer items are converted to multiple-choice items or vice versa, or if understanding of a concept is measured a different way.

Please note that the Final Exam is cumulative and will include items from all of this POL 138 course. But this practice exam will include only items from the fourth section of the course.

13 Meta-analysis in Microsoft Excel

[No exam items]

14 Statistical tests in R

14.1 Binomial test

[See section 14.5]

14.2 Fisher's exact test

[See section 14.5]

14.3 One sample t-test

[See section 14.5]

14.4 Two sample t-tests, unpaired and paired

[See section 14.5]

14.5 Review

1. Suppose that our null hypothesis is that, in the United States, the mean age among Democrats equals the mean age among Republicans. We collect data from a random sample of 200 Democrats and 200 Republicans. Of the tests below, which test would be most appropriate for testing that null hypothesis?
   A. binomial test
   B. Fisher's exact test

C. one-sample t-test
D. two-sample t-test

Comparison of the mean from one sample to the mean of another sample, but the analysis cannot be paired, because each respondent is either in the Democrat sample or the Republican sample

2. Suppose that our null hypothesis is that, in the United States, the percentage of women among Democrats equals the percentage of women among Republicans. We collect data from a random sample of 500 U.S. residents. Of the tests below, which test would be most appropriate for testing that null hypothesis?
A. binomial test
B. Fisher's exact test
C. one-sample t-test
D. two-sample t-test

Comparing a sample percentage to another sample percentage.

3. Suppose that our null hypothesis is that students in a POL 138 class will get the same percentage correct on a posttest that the students get on the pretest. For each student in a POL 138 class, we collect data on the student's percentage correct on a pretest and the student's percentage correct on a posttest. Of the tests below, which test would be most appropriate for testing that null hypothesis?
A. binomial test
B. Fisher's exact test
C. one-sample t-test
D. two-sample t-test

Comparison of the mean from one sample to the mean of another sample. The analysis can be paired, but it is possible to conduct an unpaired analysis, too.

4. Suppose that our null hypothesis is that the mean final exam score among students in a POL 138 class will be 80. Of the tests below, which test would be most appropriate for testing that null hypothesis?
A. binomial test
B. Fisher's exact test
C. one-sample t-test
D. two-sample t-test

Comparing a sample mean to a particular mean.

5. Suppose that our null hypothesis is that the percentage of Republicans who are female is 50 percent. Of the tests below, which test would be most appropriate for testing that null hypothesis?
A. binomial test
B. Fisher's exact test

C. one-sample t-test
D. two-sample t-test

Comparing a sample percentage to a particular percentage.

15 Data visualization in R

[No exam items]

16 Review

[No exam items]