

# Analyzing Data on Contemporary Issues in Psychological Sciences

## Assignment Guidelines

This assignment provides you with an opportunity to explore how real-world data can be used to help understand contemporary issues in psychological sciences. You will:

1. Complete a data science pre-test that captures your understanding of how data is used and comfortable you are viewing, analyzing, and drawing conclusions from data.
2. Identify a publicly available dataset –OR– Create your own dataset by collecting survey data (see **Options for Final Project Datasets** below)
3. Analyze your data
  - a. Provide simple descriptive statistics (frequencies/percentages of responses; means and standard deviations)
  - b. Explore relationships between variables (correlation, t-tests, or ANOVA)
4. Write a summary of your findings (~1 paragraph)
5. Create a visual representation of your findings (graph, chart, table, etc.)
6. Complete a data science post-test that captures your understanding of how data is used and comfortable you are viewing, analyzing, and drawing conclusions from data.

Components 1 & 2 are due Wednesday, 4/14 by 11 am

All other components are due Wednesday, 4/28 by 11 am

## Options for Final Project Datasets

1. General Health Dataset (CDC)
  - a. Key variables: weight classifications (overweight/obese), physical activity, fruit/vegetable consumption
2. Mental Health Care
  - a. The U.S. Census Bureau, in collaboration with five federal agencies, launched the Household Pulse Survey to produce data on the social and economic impacts of Covid-19 on American households.
3. Deaths in US by age, race/ethnicity, education (Natl Center for Health Statistics)
  - a. Deaths by educational attainment, race, sex, and age group for deaths occurring in the United States.
4. Police misconduct cases & payouts
  - a. Key variables: cities, case name, payout.
  - b. Choose from: Atlanta, Baltimore, Baton Rouge, Boston, Cambridge, Charleston, Chicago, Cincinnati, Cleveland, Colombia, Detroit, Ft. Lauderdale, Indianapolis, Little Rock, Los Angeles, Memphis, Miami, Milwaukee, New Orleans, New York, North Charleston, Orlando, Paterson,

Philadelphia, Richmond, Roanoke, San Francisco, Springfield, St. Louis, Washington DC, Waterbury.

5. Education – Scholarships (State of New York)
  - a. Key variables: NY college/university, number of scholarship awardees, scholarship money awarded, sector of school (public/private).
6. High School Student TV Viewing
  - a. National and state values for percent of students in grades 9-12 watching 3 or more hours of television each school day

Find your own: <https://catalog.data.gov/dataset> (select CSV as format and search whatever topic you're interested in)

Make your own: Create a survey on a specific topic and get 30 people to fill it out (see **Survey Basics** below for more details). I can help you prepare it using Qualtrics survey software.

[https://www2.census.gov/programs-surveys/acs/summary\\_file/2019/data/1\\_year\\_by\\_state/](https://www2.census.gov/programs-surveys/acs/summary_file/2019/data/1_year_by_state/)  
<https://catalog.data.gov/dataset/mental-health-care-in-the-last-4-weeks>  
[https://nccd.cdc.gov/dnpao\\_dtm/rdPage.aspx?rdReport=DNPAO\\_DTM.ExploreByTopic&islClass=PA&islTopic=PA1](https://nccd.cdc.gov/dnpao_dtm/rdPage.aspx?rdReport=DNPAO_DTM.ExploreByTopic&islClass=PA&islTopic=PA1)

## **Survey Basics**

If you are going to create your own survey, you should follow some basic guidelines:

Include basic demographic information:

- Age – let participant type in whole number
- Race (Black, White, Asian, Native American, multiracial)
- Ethnicity (Hispanic or not)
- Gender – consider including “nonbinary” or “other” option
- Additional variables that might be interesting:
  - Marital status
  - Employment (occupation; unemployed/part-time/full-time)
  - SES depending on your topic (examples: income, highest level of education or parents' highest level of education if child, eligible for Pell grant or need-based financial aid)
    - For income, you can let them write in a number, but be sure to specify an example so you don't end up with one answer of 20k and one answer of 35,000
    - For highest level of ed, provide answer choices
    - Pell eligibility can be a yes/no and used for t-tests
  - Housing (rent/own, on-campus/off-campus)

For main topic questions, avoid yes/no, true/false, or other two-option responses

- The general rule of thumb is 5 response options. Examples:

- strongly agree, agree, neutral, disagree, strongly disagree
- extreme satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, extremely dissatisfied
- much better, somewhat better, about the same, somewhat worse, much worse
- definitely true, probably true, neither true nor false, probably false, definitely false
- like a great deal, like somewhat, neither like nor dislike, dislike somewhat, dislike a great deal
- daily, 4-6 times a week, 2-3 times a week, once a week, never
- always, most of the time, about half of the time, occasionally, never

Read these guidelines: <https://www.surveymonkey.com/mp/writing-survey-questions/>