

Extra Credit: Compelling study

One of the skills we hope that you develop during this course is the ability to assess scientific information with a critical eye. We particularly hope that you will be able to apply this skill to assessing information that is relevant to decisions you or people you care about.

You may submit *one* course extra credit assignment during the semester to earn up to 2 extra points to your overall course grade (either the “Statistics is Everywhere” *or* the “Compelling Study” assignment).

Note: Submitting a course extra credit assignment does *not* exclude you from being able to submit a midterm extra credit assignment.

DUE DATE

Submissions are accepted on a rolling basis until **April 24th at 10:00pm PT.**

Guidelines

Identify a scientific study that has results that are *compelling* enough to you that you would be willing to change your behavior or opinion about a policy or program as a result. For example, this could be a study that addresses a health related behavior that you would be convinced to start or stop, or it could be a study identifying a public health issue or strategy (such as the impact of medicaid expansion on mortality) that you would argue for or against based on the strength of the evidence. The study should have been published in a peer reviewed journal in the last 5 years. This study must use a method of statistical *testing* that we have explored in part III of this class to test an association. This study should be attempting to answer a causal question. Unless you have discussed your article choice with the professor, your article should be dealing with outcomes in human beings. If the article does not meet these criteria you will not receive credit for the assignment.

Briefly describe the study including:

- the hypothesis of the study
- the exposure(s) and outcome(s) of interest
- the causal question being asked
- the target population
- the study design
- what method of statistical testing discussed in ph142 was used in the study

Provide your analysis of why the study was compelling including your assessment of:

- the strength and appropriateness of the study methods - in particular why was the testing method chosen appropriate for the analysis in this study.
- the appropriateness of the study population for answering this question
- to whom you feel the results could be generalized
- any potential biases or ethical issues of concern and/or how the study authors addressed them
- how appropriate the conclusions or recommendations were, given the strength of the evidence
- why you chose this study/why you found it compelling (your answer should include a methodologically based reason and what change to behavior or policy you would argue for as a result of this study)

You must include a citation for the peer reviewed paper in the format requested by the American Journal of Epidemiology.

You may not use an example we have already discussed in class.

Requirements

You may not work with anyone else on this assignment.

- Note: We expect articles, datasets, and functions to be chosen independently. If there is evidence that students are submitting the same things we will not grant credit for this assignment. To avoid this, decide your idea independently so that your independent thought shines through.

Submission

Submit your extra credit assignment on Gradescope.