

Instructions for the Final Group Projects

Karla Ballman

30 October 2019

Group Projects

The group projects

You are assigned to a group of 3 (or 4) students

Each group will receive a random number and based on that, they can select a project from those remaining

Each group will have to:

- ▶ Perform a data analysis to answer the scientific question
- ▶ Write a 6-page report on the analysis and results
- ▶ Present your results with a 6-slide, 5 minute presentation in front of the class (plus 3 minutes for questions)

The goal of the projects

The goal is for you to familiarize with a “real world” data analysis project.

You will have to:

- ▶ Obtain the data
- ▶ Read the data dictionary and understand what the variables are
- ▶ Tidy the data and transform it in the appropriate form for the analysis
- ▶ Create high quality figures that best convey the results
- ▶ Create a report that includes the description of the results and a relevant figure
- ▶ Create a presentation to briefly convey the most important results to your classmates

The report

The report will be approximately 5-6 pages, and must include the following sections:

1. **Introduction:** State the scientific question, describe the data, and state what your approach will be to answer that question.
2. **Results:** Figures and description of the results (e.g., how does the figure relate to the scientific question / answer).
3. **Conclusions:** What do you conclude from the analysis, answer the scientific question.

The results section

The results section can be optionally divided into sub-sections.

It should have an exploratory part, in which you describe the values of the different variables in the dataset, and a more focused part, in which you show results that answer the scientific question.

The slides

Imagine you are at a meeting where people want to know what is the answer to the question and what approach you took to answer it.

The slides should reflect the structure of the report:

- ▶ Two slides introduction
- ▶ Three slides of results
- ▶ One slide of conclusions

Teamwork

Each group member must contribute to the project!

Each group member must be involved in every phase of the project: analysis, writing, presentation.

Each group member must speak during the slide presentation.

How is the grade computed

Remember that the group project contributes to 25% of your final grade!

The following aspects will contribute towards your grade:

- ▶ Correctness of the analysis (use of appropriate methods, correct statistical methodology).
- ▶ Quality of the report (high quality figures, well-written text, clearly explained your analysis choices).
- ▶ Quality of the slides (clear presentation, answer to audience questions).
- ▶ Participation in the group (anonymous peer review).

What and when to submit

You need to submit a report in pdf or doc format along with the R code you used for all the analyses and figures (in .R or .Rmd format).

The report is due 12/6/2019 at midnight (upload to canvas).

The slides are due when class starts on 12/2/2019 (upload to canvas or bring a flash drive; ppt or pdf).