

# Final Project

Statistics for Executives: Fall 2023

**Due: October 6, 2023**

## Objective

The final project is an opportunity to apply the concepts we've learned to a chosen business problem within your mixed-industry study groups. The project showcases your ability to analyze data, make informed decisions, and effectively communicate findings with your study group team.

## Instructions

- Step 1: **Select a business problem:** Select a problem or question from industry that requires statistics and data analysis to investigate and is of interest to your entire study group. This could be a challenge you've encountered or a scenario where data-driven insights are valuable.
- Step 2: **Gather or simulate data:** Gather or identify a dataset related to your chosen problem. The dataset should be substantial enough to allow for meaningful analysis. You can use publicly available data or data from your workplace, ensuring it's appropriately anonymized if necessary.
- Step 3: **Define your objective:** Clearly state what you aim to achieve through data analysis. Are you trying to identify trends, predict outcomes, test hypotheses, or uncover insights? This objective will guide your entire project.
- Step 4: **Statistical analysis:** Apply appropriate methods learned in class to your dataset. Interpret the results and draw insights that address your objective. Visualize the data to support your findings.
- Step 5: **Prepare executive summary and presentation:** Prepare a 20-minute long presentation (10-20 slides) and a one-page executive summary covering the problem, data, methods, findings, and recommendations. The slides should include sufficient detail (of "consulting" variety) since they will be read over instead of explicitly presented. The presentation should include interpretation and recommendations. Provide actionable recommendations and conclusions for your industry scenario. How can the insights gained from your data analysis inform decision-making?

## Deliverables

Please submit **(1) presentation slides**, **(2) executive summary**, and **(3) supporting code or excel workbooks** on our canvas site by the October 6, 2023 deadline. Any presentation software (keynote, powerpoint, canva, google, ...) may be used. I only request that you turn in your final set of slides saved as a pdf.

## Grading Criteria

Evaluation is based on relevance of the business problem, clear definition of the objective, data selection or simulation, accurate application of statistical methods, collaborative interpretation of results, quality of recommendations, and effectiveness of the presentation.

## Important Notes

- Selection of the topic is often the hardest part. Think carefully with your study group about what you'd like to investigate. Keep it narrow enough that a thorough analysis is achievable but the impact is still meaningful.
- Come prepared to discuss what topic your group is considering during our next set of meetings in September.
- Good luck and have fun!