

## Statistical Discrimination Project

Her Majesty, Shonda Rhimes, the Queen of Shondaland, has made her mission to end economic gender discrimination in her land. Your project consists of two tasks. First, you must determine whether economic gender discrimination exists and to what extent. Second, you will assess the underlying causes of this discrimination or its absence using your statistical and economic knowledge. You will be assessed equally on well you apply the concepts we learned in this setting, perform data analysis in *R*, complete the two tasks above, present your results, and clearly/coherently communicate your ideas. For this project, I want you to think about the tools we learned and apply them while demonstrating basic skills in *R*. The guidelines for this project follow.

- Your project write up must be typed, no more than 25 pages including figures, 12 point font, 1in margins, double-spaced and include a cover page (which I will provide and does not count toward the page count)
- Your project write up must be in an essay/report form. You may break the writing into the sections below, but it should have a clear introduction and conclusion stating your objectives, what you do, and your findings.
- You must send your *R* code electronically as a *.R* file to econstats103@gmail.com (Subject Line: Project-R-Code-yourNameHere). I must be able to replicate all the results in your project with your code. Any results, statistics, figures or table without supporting code will not count towards your mark.
- You may not consult with your classmates on the project or copy code. It will be considered a violation of academic integrity and result in a zero on the project.

Here is some advice for the writing the project.

- Clearly label all figures and tables
- Avoid run-on sentences and keep the subject and verb close in sentences
- Write the introduction and conclusion last
- Justify choices of tests and statistics

Here is some advice for the R Code.

- Use comments to separate sections of your code and make clear what your code does. A “#” before text indicates that it is a comment (e.g. # Mean Wage by Gender)
- Use white space to space out your code

## Getting started with *R*

1. Go to <http://cran.r-project.org>, download and install *R*. Go to <http://www.rstudio.com>, download and install *R – Studio*.
2. *R* is the base program and *R-Studio* is the user interface
3. Complete the R-Tutorials 1-5 at <http://fditraglia.github.io/Econ103Public/>

## Loading the Data

Instructions TBA

## Week 1: Measuring Discrimination

Instructions TBA

## Week 2: Sources of Discrimination

Instructions TBA

## Week 3: Statistical Evidence of Discrimination

Instructions TBA

## Week 4: Predicting Discrimination

Instructions TBA

## Week 5: Eliminating Discrimination

Instructions TBA