## QTM 150 Intro Class

Umberto Mignozzetti



Institute for Quantitative Theory and Methods

### **Overview**

#### Today's class:

- About QTM 150
- About me
- About you
- DataCamp

# QTM 150: Intro to Statistical Computing

## Statistical Computing

- Statistical computing is everywhere:
  - Media
  - Science
  - Technology
  - Farming
  - Medicine
- And they are among the best-paid jobs we have now!
- Just Google "Data Science Salaries" to see it...

## Statistical Computing

- However, there is a shortage of qualified workers in the field.
- This class is the beginning to bridge this gap, and qualify for a Data Science career.

## **Course Description**

- This lab provides an introduction to statistical computational tools.
- The material is selected to enable you to become proficient enough to actively implement the methods your research.

## **Course Description**

- There are many softwares we could use for this purpose.
- In this class, we will use R
- Go ahead and Google "R statistics"



## Learning Outcomes

By the end of the course, you should be able to:

- Master the knowledge of R basic computation and simulation
- Deal with complex and messy real data and fluently reshape data into the most convenient form for analysis or reporting
- Use graphics to explore and understand data
- 4. Gain familiarity with basic data collection, storage, and manipulation.

#### **Class Structure**

- We will have one lab every Friday
- After the lab (not this first one...), I'll post a quiz about the lab content
- You will have 12 hours to finish this quiz
- There will be one problem set each week
- The next two weeks are going to be comprised of DataCamp assignments
- I'll make a post about DataCamp next
   Tuesday

#### Is this class hard?

- Yes and no...
- Yes: because it is for most of you the first time you are using a programming language
- No: QTM faculty have a lot of experience guiding you through your learning process
- And we are committed to your success!

## **Course Evaluation**

#### Four components:

- In-lab quizzes (30%)
- Weekly homework (30%)
- In-lab exam (20%)
- Project (20%)

### How to find help?

- I will hold office hours every week.
- Also, Ms. Mehta and Ms.
   Zhang will also hold office hours (they already made an announcement).
- I'll post an announcement about GroupMe today. Join it!
- Don't forget: we are here to help! All you need is to ask.

## Questions?

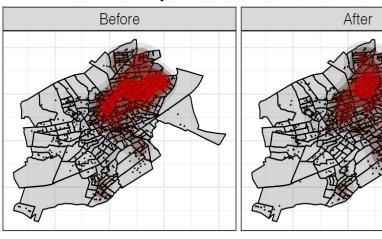
My name is Umberto Mignozzetti

I am a political scientist, with PhD from NYU



I study comparative politics, with a focus on how to improve education and health care in developing economies

#### Cases +/- 60 Days Around Intervention



#### I am Brazilian



And in my free time, I love to watch and play soccer.



## Questions?

## About you

### **About you**

I will call your name now using my terrible pronunciation. Please:

- 1. Teach me how to pronounce your name
- 2. Tell me your major/minor/interests
- 3. Tell me something interesting about you

## **DataCamp**

# DataCamp And Software Install

- The first two labs will be in DataCamp
- It is fairly straightforward to use it, and you will see that it is a very useful too.
- By Tuesday, after the add/drop/swap, I will post more instructions
- For now, I posted two videos on how to install R and R Studio, the main tools we will be using in the lab.

## Questions?

## Have a great weekend!