

# What You Can Do

---

Nick Eubank

## **Modeling**

Developing Model to Faithfully Represent Data

## **Modeling**

Developing Model to Faithfully Represent Data



## **Inference**

Interpreting Model Parameters  
for Application

## **Modeling**

Developing Model to Faithfully Represent Data



## **Inference**

Interpreting Model Parameters  
for Application

1. Are my estimates causal?

## **Modeling**

Developing Model to Faithfully Represent Data



## **Inference**

Interpreting Model Parameters  
for Application

1. Are my estimates causal?
2. Will they generalize?

## **Modeling**

Developing Model to Faithfully Represent Data



## **Inference**

Interpreting Model Parameters  
for Application

1. Are my estimates causal?
2. Will they generalize?
3. Do they reflect biases in an unethical way?

# Day 1

# Day 1

By the end of this course, you will:

- Understand why causal inference is hard,
- Be able to critically evaluate causal evidence collected by others,
- Articulate causal questions,
- And develop research designs to answer those questions.



# Day 1

By the end of this course, you will:

- Understand why causal inference is hard,  
Potential Outcomes framework, learned to apply it in a wide range of contexts.
- Be able to critically evaluate causal evidence collected by others,
- Articulate causal questions,
- And develop research designs to answer those questions.

# Day 1

By the end of this course, you will:

- Understand why causal inference is hard,  
Potential Outcomes framework, learned to apply it in a wide range of contexts.
- Be able to critically evaluate causal evidence collected by others,  
Evaluated and learned to respond to claims about insurance, advertising, health, and the effects of products
- Articulate causal questions,
- And develop research designs to answer those questions.

# Day 1

By the end of this course, you will:

- Understand why causal inference is hard,  
Potential Outcomes framework, learned to apply it in a wide range of contexts.
- Be able to critically evaluate causal evidence collected by others,  
Evaluated and learned to respond to claims about insurance, advertising, health, and the effects of products
- Articulate causal questions,  
Convert vague stakeholder prompts into actionable questions
- And develop research designs to answer those questions.

# Day 1

By the end of this course, you will:

- Understand why causal inference is hard,  
Potential Outcomes framework, learned to apply it in a wide range of contexts.
- Be able to critically evaluate causal evidence collected by others,  
Evaluated and learned to respond to claims about insurance, advertising, health, and the effects of products
- Articulate causal questions,  
Convert vague stakeholder prompts into actionable questions
- And develop research designs to answer those questions.  
Developing, along the way, great portfolio pieces!

Along the way...

## Along the way...

- Used randomization and A/B test data to measure effect of website design changes and racial discrimination in hiring.

## Along the way...

- Used randomization and A/B test data to measure effect of website design changes and racial discrimination in hiring.
- Used regression to estimate gender wage discrimination in the US

## Along the way...

- Used randomization and A/B test data to measure effect of website design changes and racial discrimination in hiring.
- Used regression to estimate gender wage discrimination in the US
- Used fixed effects to understand tax policy's impact on car accidents



## Along the way...

- Used randomization and A/B test data to measure effect of website design changes and racial discrimination in hiring.
- Used regression to estimate gender wage discrimination in the US
- Used fixed effects to understand tax policy's impact on car accidents
- Used matching to estimate labor market returns to education

## Along the way...

- Used randomization and A/B test data to measure effect of website design changes and racial discrimination in hiring.
- Used regression to estimate gender wage discrimination in the US
- Used fixed effects to understand tax policy's impact on car accidents
- Used matching to estimate labor market returns to education
- Used diff-in-diffs to understand impact of drug legalization on crime

## Along the way...

- Used randomization and A/B test data to measure effect of website design changes and racial discrimination in hiring.
- Used regression to estimate gender wage discrimination in the US
- Used fixed effects to understand tax policy's impact on car accidents
- Used matching to estimate labor market returns to education
- Used diff-in-diffs to understand impact of drug legalization on crime

All while getting used to dealing with people again!



erika  
@brownbearika



Maybe...just maybe.... the real treasure...was the friends  
we made along the way... (end scene)



I hope you feel really proud of everything you've accomplished.