

# BIG DATA FOR POLICY CERTIFICATE

## Program Description

Data science has become an increasingly critical tool for driving social change — and a great launch point for careers in this area. In this certificate program, you will discover how to analyze a dynamic set of today's most pressing social equality challenges, using data science to better understand and quantify these issues. Throughout the program, you will explore how to use the programming language R to uncover patterns and insights in several data sets related to current issues such as income; racial and educational inequalities; the COVID-19 pandemic; and crime, policing, and incarceration.

Course activities will give you the opportunity to practice statistical analysis on data, use R within the RStudio development environment to produce illustrative graphs of the data, and directly connect policy decisions to real-world outcomes. By the end of this program, you will have gained the ability to examine key economic, demographic, and sociological issues through the lens of data; recognize how data is being used to address policy problems; and master valuable statistical and technical skills to begin to make an impact.

To be successful in this program you will need access to a New York Times subscription.

The courses in this certificate program are required to be completed in the order that they appear.

## Key Takeaways

- Explore the roots of inequality in the United States, examining how data is used to inform policy decisions in racial, housing, income, and educational inequality
- Explore how the COVID-19 pandemic affects different groups of people as well as the ways data can inform our understanding of the risks, spread, treatment, and impact of a novel disease
- Analyze recent trends of crime, policing, and incarceration, and examine the different ways that big data might be used to understand and even prevent crime
- Use the statistical programming language R to uncover and describe patterns in data to understand relationships and gain insights into how data and data representations are linked to policy decisions

## What You'll Earn

- Big Data and Big Policy Problems Pre-College Certificate from Cornell's Jeb E. Brooks School of Public Policy

## Who Should Enroll

- High school students interested in data science or social change
- Rising high school juniors and seniors
- Students aged 16 and older

## Total Investment

- 12-15 hours per week for 8 weeks- 100% online

## How To Enroll

For more information on how to enroll, please visit Big Data for Big Policy Problems Certificate (<https://ecornell.cornell.edu/certificates/data-science-analytics/big-data-for-big-policy-problems/>).

## Courses

Code	Title	Hours
eCornell BRKS101	Income Inequality and Intergenerational Mobility	0
eCornell BRKS102	Impact of Racial-Ethnic Segregation on Education and Neighborhood Inequality	0
eCornell BRKS103	Social and Economic Impact of the Early COVID-19 Pandemic	0
eCornell BRKS104	Crime and Incarceration	0