



# **DIVERSIFYING ECONOMICS IN THE UNDERGRADUATE CLASSROOM**

## **Plug and Play Video Modules with Diverse Role Models, Relevant Research, and Active Learning**



Elaine Frey, California State University, Fullerton  
Jill Caviglia-Harris, Salisbury University  
José Fernández, University of Louisville

National Science Foundation, Division of Undergraduate  
Education (DUE-2315696)  
CSWEP-SSRC Women in Economics and Mathematics  
Research Consortium

# MOTIVATION

## (the problem)

- Principles of economics courses are taken by almost half the undergraduate students in the U.S. (Siegfried 2000, Margo and Siegfried 1996).
- These courses are not taught by a diverse body of faculty (AEA 2020, Bayer and Wilcox 2019, Sharpe 2018, Lundberg and Stearns 2019, Bayer and Rouse 2016, McDowell, et al 1999) who use antiquated teaching methods (Asarta, et al 2021).
- The lack of diversity in economics affects the topics that economic researchers choose to (and not to) study (Offutt 2021, Segerson et al 2021, Unnevehr et al 2021), influences the policy recommendations of this field (May et al 2018, May et al 2014), and influences the way that economics is taught.
- The prevalence of antiquated and non-inclusive teaching discourages diverse student learning and persistence in the field (Al-Bahrani 2022, Wooten et al 2021, Hoyt and McGoldrick 2019, Picault 2019).

# MOTIVATION

(the solution)

- Interactive approaches including use of media and classroom activities can help engage diverse students (Bayer et al 2020) and introduce them to timely topics (Fernandez et al 2021, Schneider 2021).
- STEM fields have made advances in how university courses are taught and have made significant efforts to reach a more diverse student body. We draw from this body of literature.
- Evidence supports using role model-based interventions (Porter and Serra 2020, Price 2010, Lee and Ing, 2020, Solanki and Xu, 2018).

We aim to support and validate student identities as emerging economists (Allen-Ramdial and Campbell 2014) by exposing students to a range of economists in videos that place these diverse voices in positions of power (Steinke 2022).

# OUR INTERVENTION

## (UNCOMMON ECON)

1. Short engaging videos
  - Showcase interesting and timely research
  - Highlight the work of underrepresented and women economists
  - Blend seamlessly into economics courses
2. Two seasons:
  - Season #1 – principles of microeconomics
  - Season #2 – principles of macroeconomics
3. Teaching Materials
  - Research Brief
  - Discussion and Clicker Questions
  - Innovative extensions



# Season 1: Principles of Microeconomics

---

## **Episode #1: Supply and Demand**

The Market for Mental Health Care

## **Episode #2: Production and Costs**

Exploring the Bittersweet of Sugar Production

## **Episode #3: Market Structure**

A Legal Market for Cannabis

## **Episode #4: Price Controls**

Price Floors and the Wage Gap

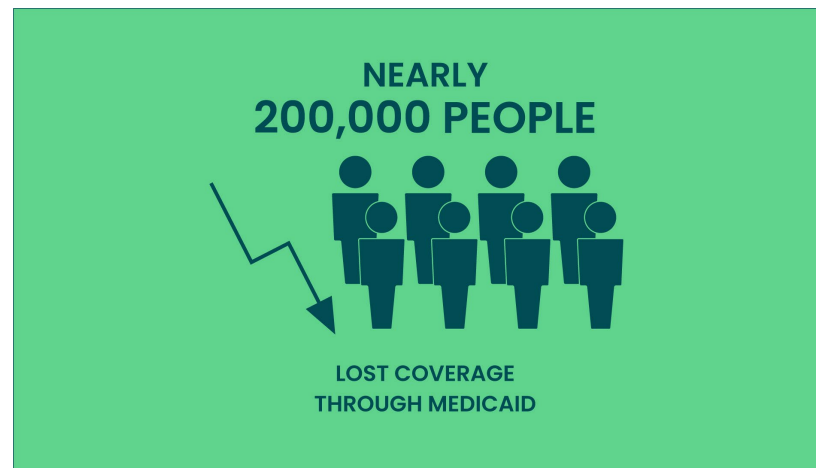
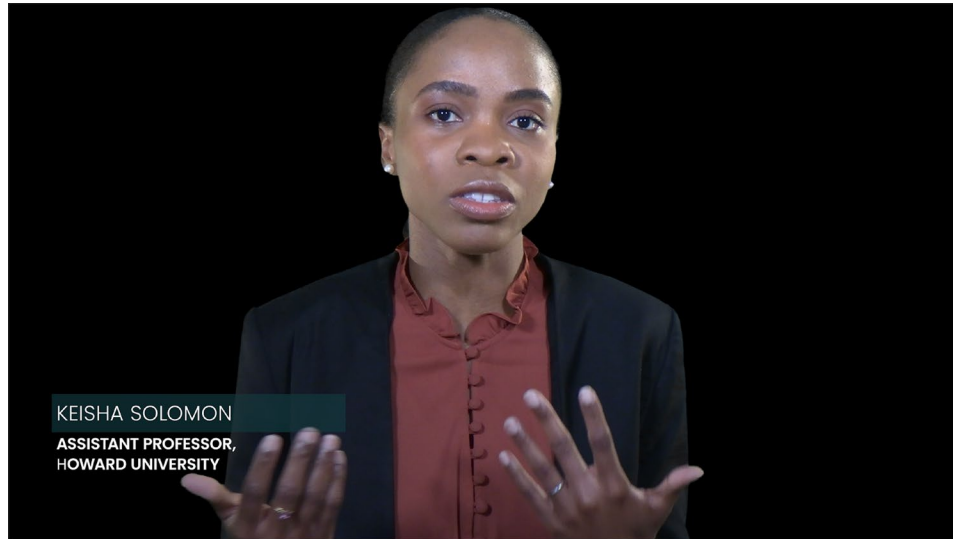
## **Episode #5: Externalities**

The Plastic Problem: Creative Policies for Managing a Negative Externality



# Episode #1

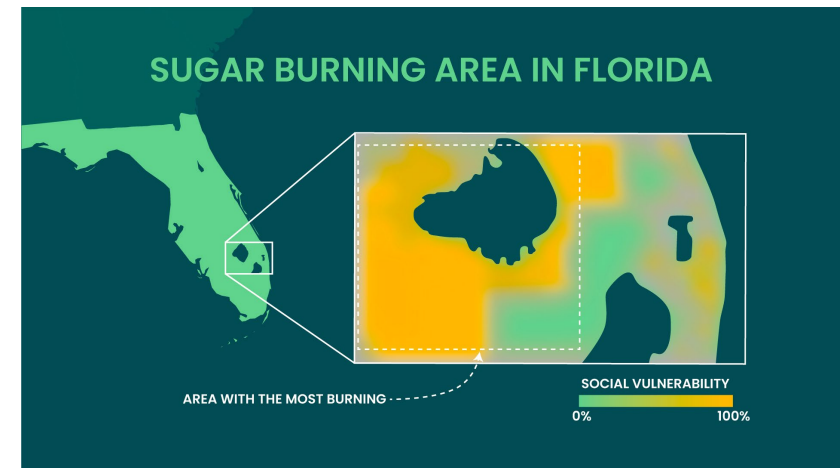
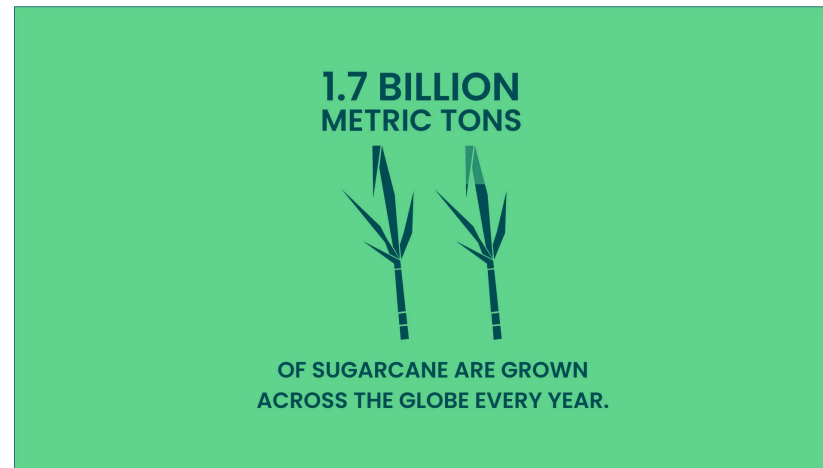
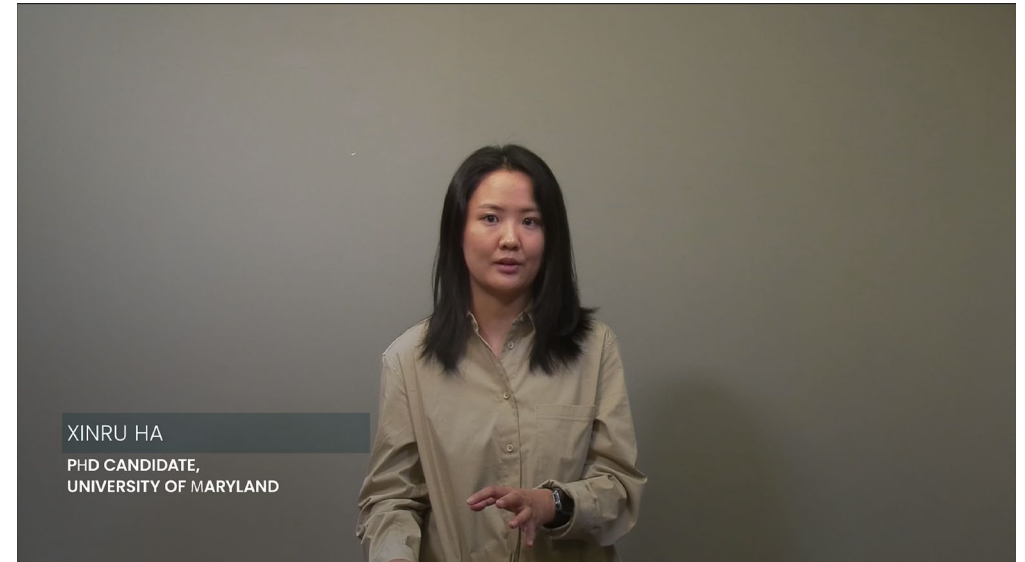
## Supply and Demand: The Market for Mental Health Care





# Episode #2

## Production and Costs: Exploring the Bittersweet of Sugar Production

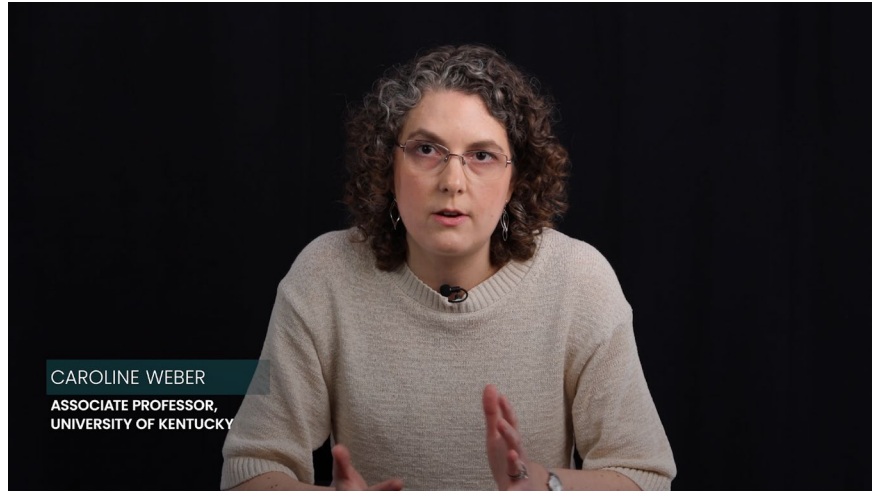




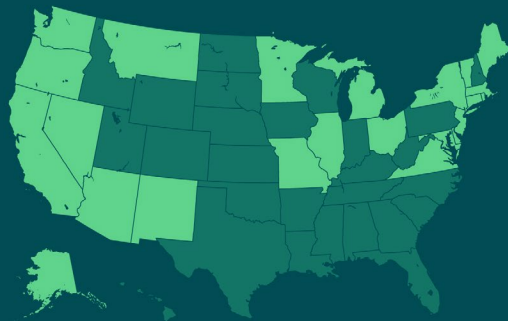


# Episode #3

## Market Structure: A Legal Market for Cannabis



24 STATES



HAVE LEGALIZED RECREATIONAL MARIJUANA

THEY COULD TRACK MARIJUANA



FROM LEGAL MARKETS TO ILLEGAL MARKETS

24 DIFFERENT MARKETPLACES







# Episode #4

## Price Controls: Price Floors and the Wage Gap



THE FIRST MINIMUM WAGE WAS



25¢

↑ WAGES INCREASED  
~35%



FROM EXPANDING FEDERAL MINIMUM WAGE COVERAGE

ONE-FIFTH

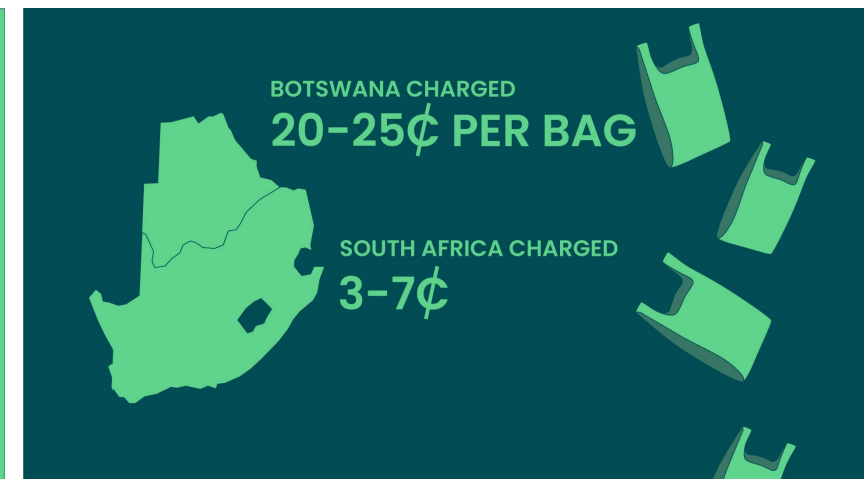
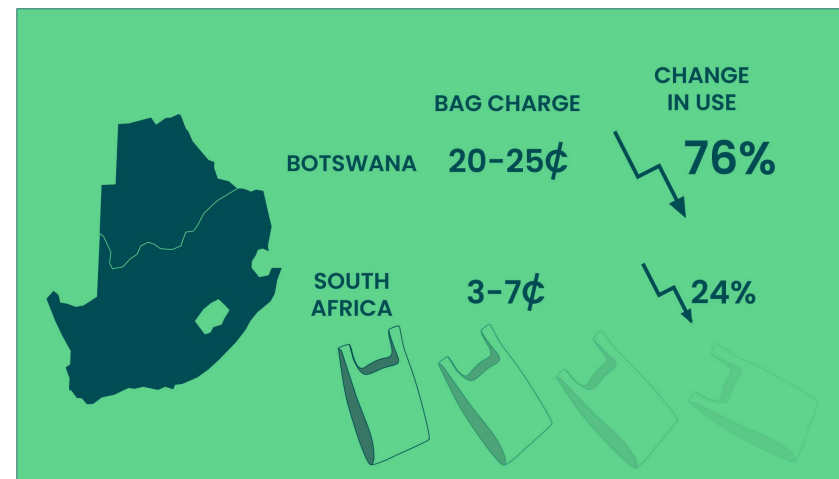


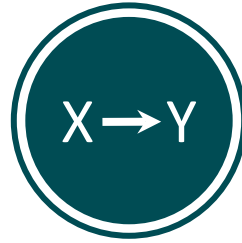
OF THE WAGE GAP CLOSING  
WAS DUE TO EXPANDING THE FEDERAL MINIMUM WAGE



# Episode #5

## Externalities: The Plastic Problem: Creative Policies for Managing a Negative Externality





# EXPERIMENTAL DESIGN



$$\Delta Y_{it} = \alpha + \beta_1 T_i + \beta_2 \gamma_i + \beta_3 (T_i \times \gamma_i) + \delta_c + \chi_i + \epsilon_{it}$$

### Outcome of Interest

Sense of belonging  
Self-efficacy  
Plans for future econ courses  
Views on economics

Treatment

### Student Identity Characteristics

gender  
race

Interaction

Instructor  
Fixed Effects

### Student Characteristics

GPA, year, etc

# STUDY DESIGN

- Approximately 50 faculty teaching 2 classes each in consecutive semesters, across two years will generate a sample of over 4,000 students.
- The target population is undergraduate students in principles of microeconomics courses ages 18+.
- In the treatment semester, the instructor must use a minimum of three of the classroom modules. They must dedicate time in class to show the video and use the curricular materials.

Experimental Design with Staggered Treatment				
Faculty Adopter Cohort	Spring 25	Fall 25	Spring 26	Fall 26
Group 1 (G1)	Control 1 (C1)	Treatment 1 (T1)		
Group 2 (G2)		C2	T2	
Group 3 (G3)			C3	T3
Group 4 (G4)			C4	C4



## EXPERIMENTAL DESIGN

The staggered design improves our ability to estimate causal inference by

1. isolating treatment effects from time-specific confounders
2. increasing statistical power
3. testing for heterogeneous effects
4. capturing instructor fixed effects
5. reducing bias from external shocks

# SURVEY DATA

## **Pre and Post Surveys in the Control and Treatment Semesters**

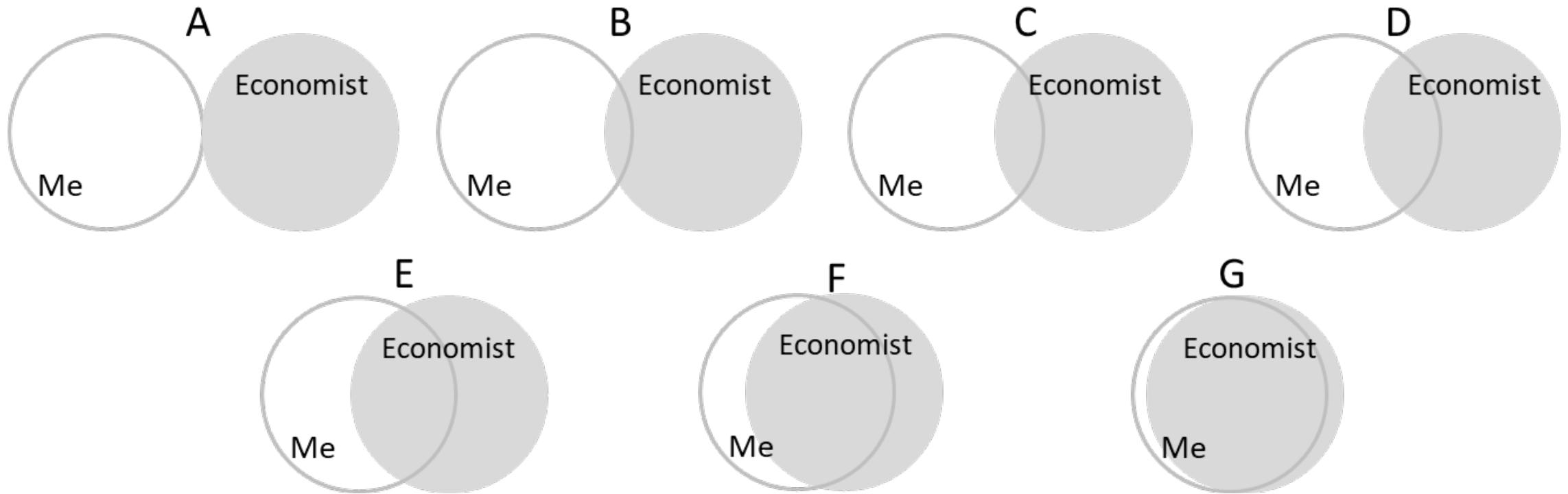
1. self-belonging in economics
2. self-efficacy
3. impressions of what economists do,
4. gender
5. race
6. home zip code
7. birth date

## **Institutional Research Offices will provide**

1. gender
2. race
3. home zip code
4. birth date
5. GPA
6. economics courses taken and grade received
7. major

# ECON Belonging/Identity Question

Select the image that best describes the current overlap you feel you have between who you are and with your image of what a professional economist is.



# EXPECTED PAPERS

## Study #1

What is the impact of the videos on student belonging in economics? Does this differ by gender or race/ethnicity?

**Data:** pre-post surveys

## Study #2

What is the impact of the videos on student continuation in economics courses? What is the impact of the videos on student understanding of economists do? Do the answers to these questions this differ by gender or race/ethnicity?

**Data:** pre-post surveys & Institutional Research Office (IRO) data at the conclusion of the study

## Study #3

What is the impact of the videos on long-term continuation in economics courses and in the economics major? Does this differ by gender or race/ethnicity?

**Data:** pre-post surveys & Institutional Research Office (IRO) data 3 years post study



## **PROGRESS**

Status of the experiment to date



## PROJECT STATUS

- We recruited 13 faculty members from different universities and colleges for the control semester in Spring 2025.
- We are releasing the videos on Aug 14 and they will be available on our website after. Videos and curricular materials available for the first treatment semester (Fall 2025).
- Our second cohort of 15 faculty are beginning their control semester in Fall 2025.
- We are now recruiting faculty for our third and final cohort, consider participating!





# **PRELIMINARY RESULTS**

Control Semester Spring 2025



SURVEY SAMPLE

	Pre-Course	Post-Course		Pre-Course	Post-Course
Appalachian State University	100	68	Oglethorpe University	25	19
Boston College	132	46	Purdue University	41	6
Florida Tech	24	25	Purdue University Fort Wayne	11	3
Fresno State University	68	66	University of Kentucky	176	108
Gettysburg College	25	0	University of Maryland	210	126
Hartwick College	42	47	University of Tampa	80	67
Lake Superior State University	32	30			
TOTAL OBSERVATIONS	966	611			



## CONTROL PRELIMINARY RESULTS – Pre and Post Full Sample

	Pre-Course (mean/sd)	Post-Course (mean/sd)	t-stat
A. Views of Econ (1-7, 7=strongly agree)			
society values what economists do	5.12 (1.18)	5.14 (1.25)	0.31
economists make the world a better place	5.54 (1.02)	5.62 (1.06)	1.43
economics is a rewarding career	5.12 (1.23)	5.18 (1.35)	0.87
economics is interesting	5.24 (1.28)	5.25 (1.40)	0.14
I feel like I belong in economics	3.42 (1.38)	3.80 (1.35)	5.46***
N	966	611	1577

# CONTROL PRELIMINARY RESULTS – By Race and Gender

	Non-white (mean/sd)	White (mean/sd)	t	Non-male (mean/sd)	Male (mean/sd)	t
A. Views of Econ (1-7, 7=strongly agree)						
society values what economists do	4.94 (1.25)	5.20 (1.22)	2.76**	5.13 (1.20)	5.07 (1.27)	-0.64
economists make the world a better place	5.52 (1.06)	5.67 (1.02)	1.92	5.65 (1.02)	5.58 (1.05)	-0.98
economics is a rewarding career	5.03 (1.29)	5.19 (1.28)	1.62	5.06 (1.34)	5.20 (1.23)	1.51
economics is interesting	5.14 (1.39)	5.32 (1.35)	1.73	5.15 (1.43)	5.35 (1.30)	1.98*
I feel like I belong in economics	3.48 (1.38)	3.61 (1.30)	1.32	3.45 (1.34)	3.67 (1.32)	2.27*
N	280	470	750	371	379	750



**WE NEED YOU! BE A PART OF THE STUDY**

Must teach Principles of Microeconomics Spring 26 and Fall 26





# Uncommon Econ

Now accepting applications for **Faculty Evaluators**.  
Earn \$2,000 in two semesters using our  
teaching resources.

[www.uncommonecon.com](http://www.uncommonecon.com)

## Our curriculum



**Video  
modules**



**Active  
learning**



**Real-world  
case studies**

SCAN QR CODE TO LEARN MORE AND APPLY TODAY!

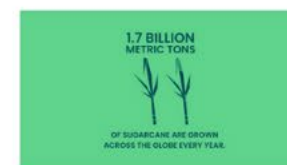


Image 1: Screenshots of Uncommon Econ videos.

Faculty Evaluators help test our Principles of Microeconomics video modules on college campuses to determine their impact on student perceptions, identity, and persistence in economics.





# APPENDIX



## PRELIMINARY RESULTS – Pre and Post Balanced Panel

	Pre-Course (mean/sd)	Post-Course (mean/sd)	t-stat
A. Views of Econ (1-7, 7=strongly agree)			
society values what economists do	5.06 (1.21)	5.14 (1.26)	0.80
economists make the world a better place	5.58 (1.05)	5.65 (1.03)	0.95
economics is a rewarding career	5.09 (1.22)	5.17 (1.35)	0.85
economics is interesting	5.29 (1.30)	5.21 (1.43)	-0.80
I feel like I belong in economics	3.41 (1.29)	3.71 (1.35)	3.12**
N	375	375	750

**Part II: Please share your views on economics.**

4. Society values the work economists do.



5. Economists help to make the world a better place.



6. I expect that economics would be a rewarding career.



7. I think economics is interesting and applicable for people like me.



**Part V. Please tell us about your future plans in economics.**

18. I would consider taking economics courses in the future.

☐  
Strongly  
Disagree

☐  
Disagree

☐  
Somewhat  
Disagree

☐  
Neutral

☐  
Somewhat  
Agree

☐  
Agree

☐  
Strongly  
Agree

19. I am considering an economics major or minor in the future.

☐  
Strongly  
Disagree

☐  
Disagree

☐  
Somewhat  
Disagree

☐  
Neutral

☐  
Somewhat  
Agree

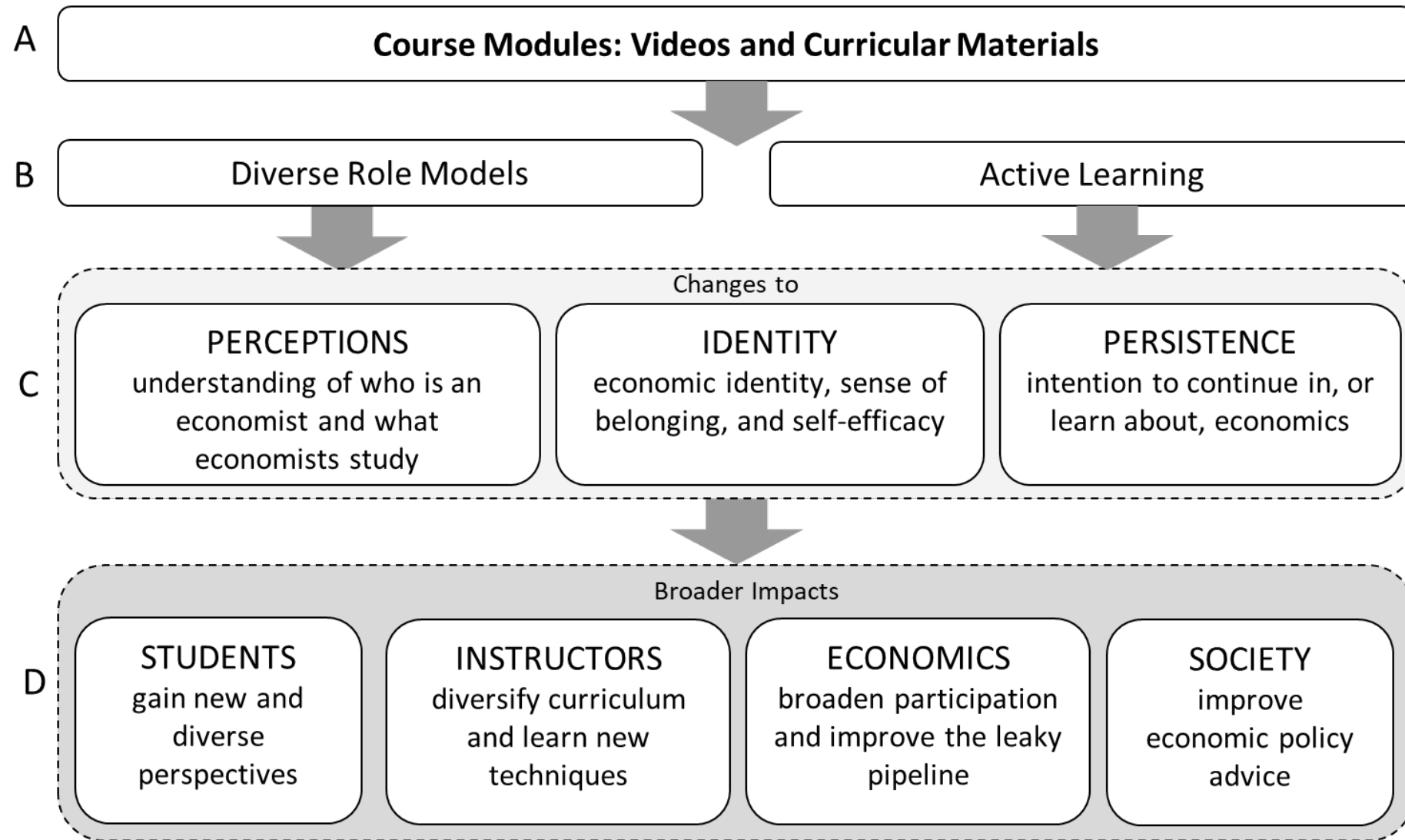
☐  
Agree

☐  
Strongly  
Agree



# THEORY OF CHANGE





**Figure 1: Theory of Change.** This figure outlines how the components of (A) our intervention including (B) diverse role models and active learning approaches will change (C) student perceptions, identity, and persistence in economics and the resulting (D) broader impacts on students, instructors, economics, and society.