DIVERSIFYING ECONOMICS IN THE UNDERGRADUATE CLASSROOM

Effectively Using Videos with Diverse Role Models, Relevant Research, and Active Learning

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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).*
- Economics is generally 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)
- Many use antiquated teaching methods (Asarta, et al 2021).
- The lack of diversity in economics affects research topics (Offutt 2021, Segerson et al 2021, Unnevehr et al 2021), influences policy recommendations (May et al 2018, May et al 2014), and influences the way that economics is taught.
- 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 can help engage diverse students (Bayer et al 2020) and introduce them to interesting and engaging research topics
- STEM fields have made advances in how university courses are taught and have made significant efforts to reach a more diverse student body.
- 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).

QUESTIONS TO CONSIDER

(teaching perspective)

- In the principles classes how do you include current economic research in the classroom?
- What are some challenges you face in trying to use media clips in the classroom (video/audio)?
- What would facilitate more exposure to current research in the classroom?

OUR INTERVENTION
(UNCOMMON ECON)

1. Short engaging videos
    - Showcase interesting and timely research
    - Highlight the work of historically 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 Curricular Questions
    - Innovative extensions

EPISODES & CURRICULUM

UNCOMMON ECON

Season 1: Principles of Microeconomics – Currently Available

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

Season 2: Principles of Macroeconomics – Coming Soon!

Episode #1: GDP
    The Natural Resource Curse
Episode #2: Unemployment
    The Relationship between AI and Unemployment
Episode #3: CPI
    Tracking Inflation with new Digital Products
Episode #4: Economic Growth
    Creative Destruction v. Creative Accumulation
Episode #5: Monetary Policy
    Unequal Policy Impacts in the Housing Market

Curriculum Example – Externalities Micro Episode 5

https://www.uncommonecon.com/episode5

- Video
- Research Brief
- Discussion ad Extension Questions
- Episode in a Graph
- Podcast
- References

$X \rightarrow Y$

TEACHING EXPERIMENT

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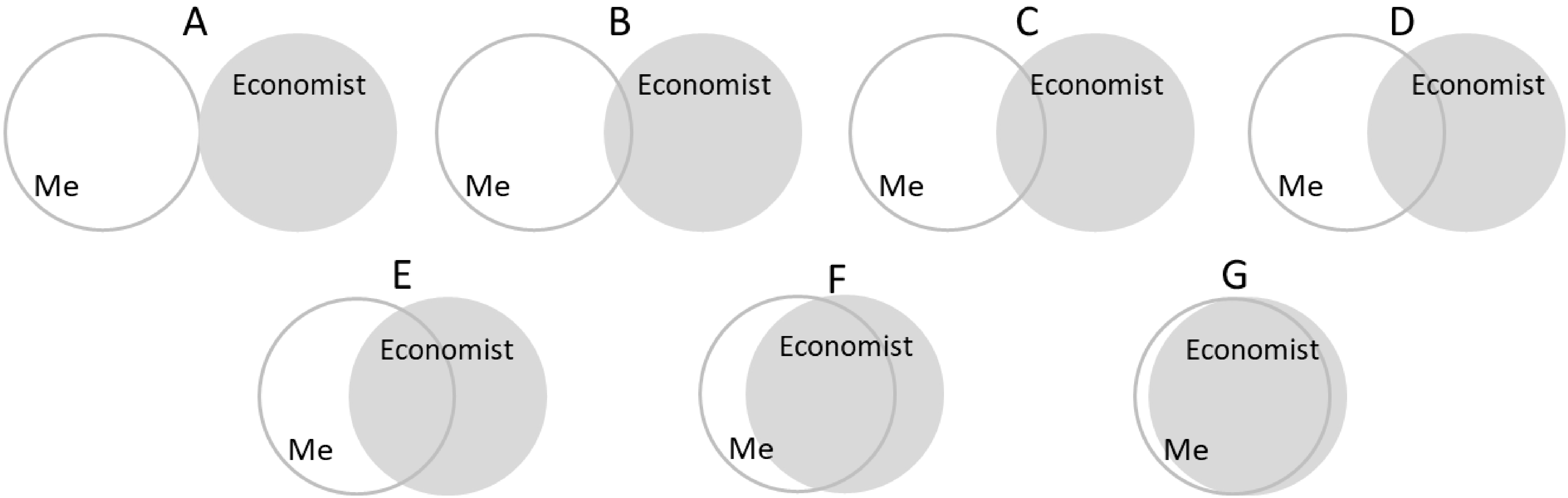
STUDY DESIGN

- Includes students from 29 colleges and universities
- Total of 1,364 students (806 students in a control semester, 558 students in treatment semester)
- The target population is undergraduate students in principles of microeconomics courses
- 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 (5-10 minutes after the video)

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

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.



TEACHING DEMO

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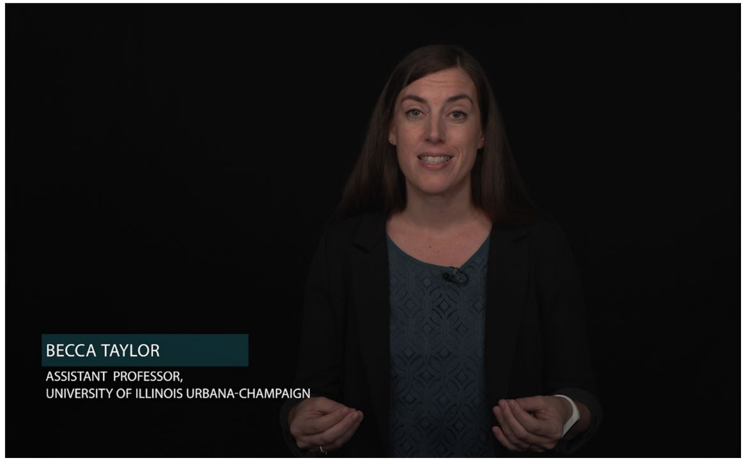
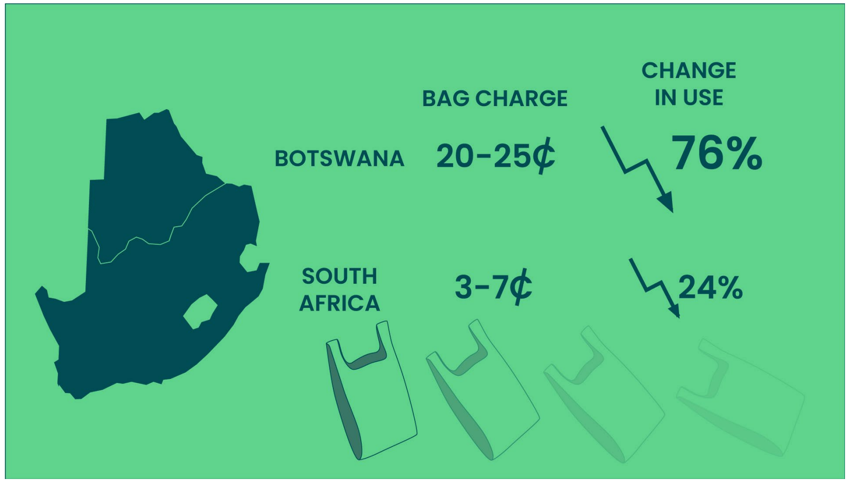
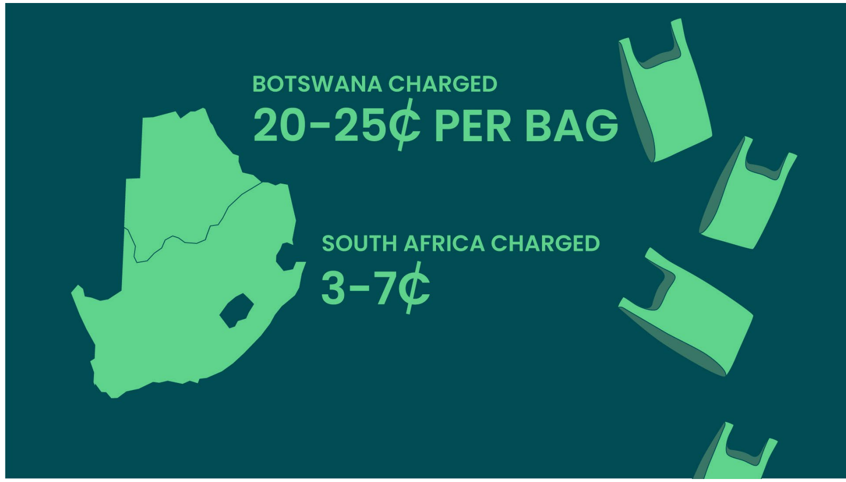
Episode #5

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







Pre-Video Strategies

- Use of the videos is more effective towards the end of the topic, once students know the theory
- **Could review main concepts prior to showing the video**
  - Discuss reason for market failure
  - Externality definition
- **Consider a pre-view questions to give students a purpose**
  - What is the best way to reduce plastic bag usage?
  - What are the three policies discussed to reduce plastic bags?

Externalities

- Example Video – View the video through the below link

- www.uncommonecon.com/episode5

Post-Video Strategies

- **Get students to move, talk, or write to facilitate active engagement**
  - Think, pair, share seems to work well
- **Consider pausing halfway**
  - Quick check-in for understanding
  - Ask students to predict outcome
  - Re-anchor discussion in theory related to class concepts
- Consider using additional questions for low-stakes assessments (HW/problem sets)

Post-Video Strategies Continued

- **Consider repeated viewings**
  - First viewing understand the context and argument
  - Second viewing apply theory
  - Alternatively assign the video before class and watch again in class
- **In-class Engagement**
  - Choose 2-3 discussion questions after viewing
  - In large lectures, multiple choice questions or clicker questions could be used
- Possibility to use videos in intermediate or upper-level courses and review more complex applications

PRELIMINARY RESULTS:

Does the experiment
have an impact on students?

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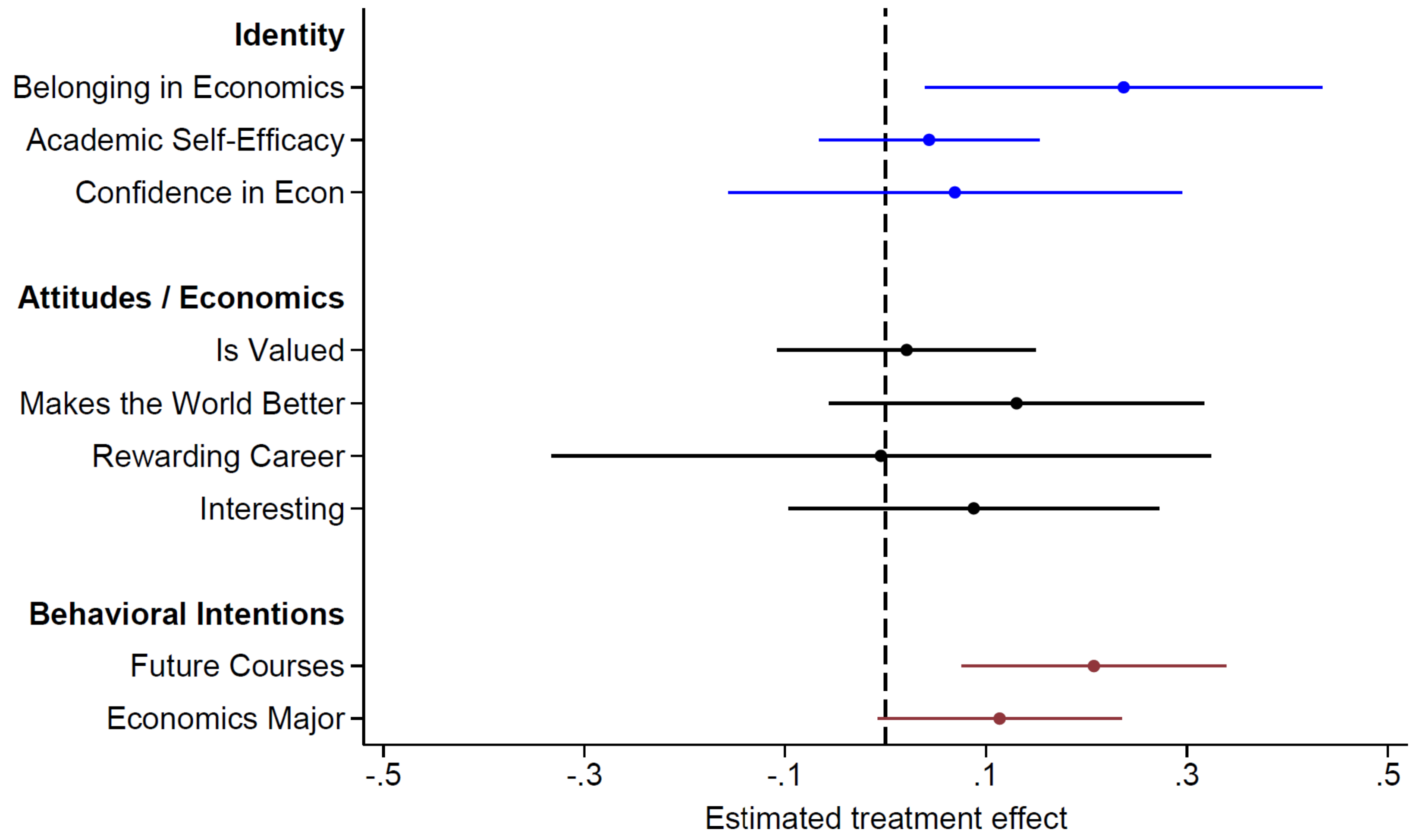
SURVEY DATA COLLECTED AT THE BEGINNING AND END OF SEMESTER

- **Identity**
  - Belonging in economics
  - Academic self-efficacy
  - Confidence in economics
- **Attitudes about economics**
  - Makes the world better
  - Rewarding career
  - Interesting
- **Intentions to pursue economics**
- Demographics (gender, race, age, zip code)
- Information on intensity of use for each class

RESULTS - TWO COHORTS



A positive effect means that the value was higher for those that had the treatment.

Belonging and **intentions to take future courses** are statistically significant from zero.

SUMMARY

- The intervention produces a large and robust increase in students' sense of belonging in economics and increases intentions to take future economics courses.
- Non-male students experience significantly larger gains in perceptions of the value of economics and its career relevance.
- Implementation intensity matters:
  - Belonging effects are amplified by greater video exposure alone
  - Gains in academic self-efficacy, confidence, and career perceptions emerge only among instructors who devote substantial class time to discussion following the videos

NEXT STEPS

- Macroeconomic videos (Season 2) will be released on Aug 13 and they will be available on our website after.
- There will be one more treatment group in Fall 2026.
- Institutional Research data will be collected several years after the experiment to measure impact on outcomes.
- If you have feedback on the videos, curriculum materials, or have teaching tips, please feel free to email me.

Thank you!

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APPENDIX

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TREATMENT EFFECTS BY GENDER

	Value	Better World	Career
White-male (reference)	-0.08	0.10	-0.06
	(0.07)	(0.13)	(0.14)
Non-white	-0.07	0.06	-0.09
	(0.12)	(0.10)	(0.17)
Non-male	0.25**	0.02	0.18*
	(0.10)	(0.11)	(0.10)
Instructor fixed effects	Yes	Yes	Yes
Clustered s.e. (instructor)	Yes	Yes	Yes
Obs.	1,363	1,363	1,363

TREATMENT EFFECTS BY RACE AND GENDER

	Belonging	Self-efficacy	Econ Confidence
White-male (reference)	0.17	0.05	0.12
	(0.13)	(0.05)	(0.15)
Non-white	0.19	-0.06	-0.11
	(0.15)	(0.07)	(0.12)
Non-male	0.01	0.03	-0.03
	(0.11)	(0.05)	(0.06)
Instructor fixed effects	Yes	Yes	Yes
Clustered s.e. (instructor)	Yes	Yes	Yes
Obs.	1,363	1,363	1,363

TREATMENT EFFECTS BY IMPLEMENTATION INTENSITY

	Episode Intensity		Discussion Intensity		Homework Intensity	
	No	Yes	No	Yes	No	Yes
Belonging in Economics	1.17	1.80**	1.30*	1.86	1.23	2.81***
	(0.19)	(0.27)	(0.19)	(0.60)	(0.17)	(0.28)
Academic Self-Efficacy	0.14*	-0.02	0.06	0.29***	0.12*	-0.12
	(0.08)	(0.13)	(0.08)	(0.03)	(0.06)	(0.35)
Confidence in Econ	0.13	0.30	0.16	0.45**	0.21	0.01
	(0.16)	(0.25)	(0.16)	(0.14)	(0.15)	(0.44)
Econ is Valued	0.09	-0.09	0.02	0.11	0.07	-0.29***
	(0.08)	(0.20)	(0.09)	(0.33)	(0.08)	(0.01)
Econ Makes the World Better	0.03	0.00	0.01	0.10	0.04	-0.12
	(0.12)	(0.24)	(0.12)	(0.14)	(0.12)	(0.15)
Econ Rewarding Career	0.12	-0.14	-0.01	0.41**	0.02	0.07
	(0.30)	(0.10)	(0.24)	(0.16)	(0.24)	(0.40)
Econ Interesting	0.05	0.16	0.08	0.17	0.13	-0.21
	(0.15)	(0.08)	(0.10)	(0.42)	(0.10)	(0.22)
Future Courses	0.17**	0.18	0.17*	0.22	0.23***	-0.23
	(0.08)	(0.19)	(0.08)	(0.30)	(0.08)	(0.17)
Economics major	0.10*	-0.15	-0.02	0.36***	0.03	-0.07
	(0.05)	(0.10)	(0.06)	(0.06)	(0.06)	(0.30)
Instructor fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Clustered s.e. (instructor)	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	545	291	666	170	760	76

EMPIRICAL MODEL

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

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

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

Table 3: Sample Description by Region

	Northeast	Midwest	South	West	Total
A. Institution Type					
Public	2	6	6	3	17
Private	5	2	4	1	12
B. Institution Size					
Large (10,000+)	4	4	6	2	16
Small (<10,000)	3	4	4	2	13
C. Cohort					
Cohort 1	2	3	6	1	12
Cohort 2	3	3	3	2	11
Cohort 3	2	2	1	1	6
D. Sample					
Institutions	7	8	10	4	29
Students	220	222	775	147	1364

Notes: The table reports the number of institutions and students by U.S. census region. Institution type refers to public or private control. Institution size is defined as large if total enrollment exceeds 10,000 students and small otherwise. Cohorts refer to the three faculty cohorts that entered the study sequentially across four semesters (beginning in Spring 2025, Fall 2025, and Spring 2026). Student counts reflect the number of students who completed the pre- and post-semester survey. Each institution contributed one instructor who taught at least one control semester and one treatment semester. Institutions are anonymized to protect confidentiality.

Part II: Please share your views on economics.

4. Society values the work economists do.

Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
○	○	○	○	○	○	○

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

Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
○	○	○	○	○	○	○

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

Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
○	○	○	○	○	○	○

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

Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
○	○	○	○	○	○	○

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

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

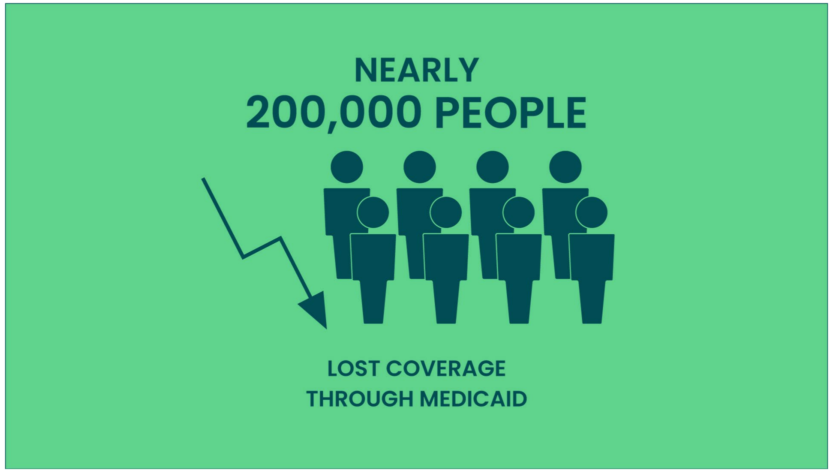
Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
○	○	○	○	○	○	○

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

Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
○	○	○	○	○	○	○

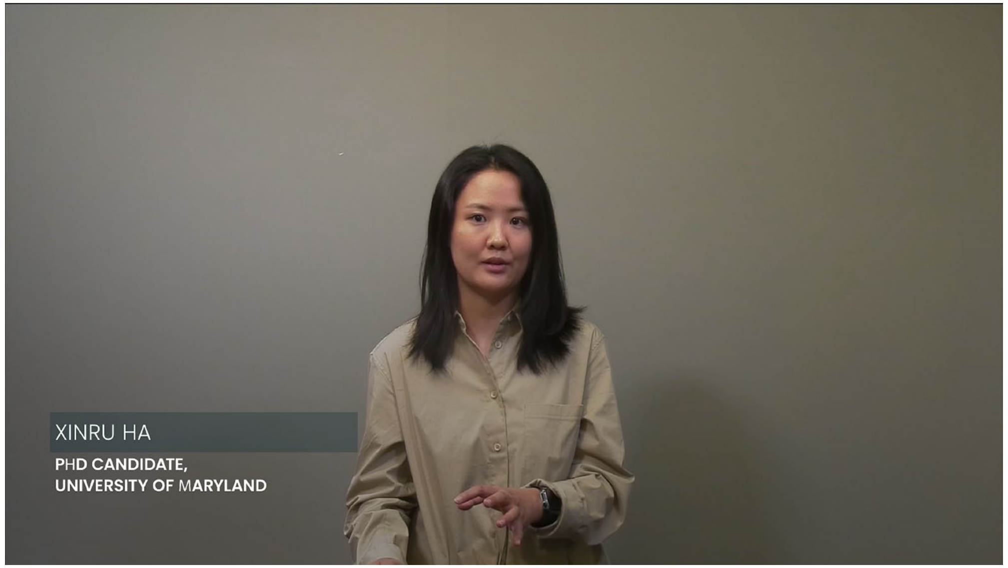
Episode #1

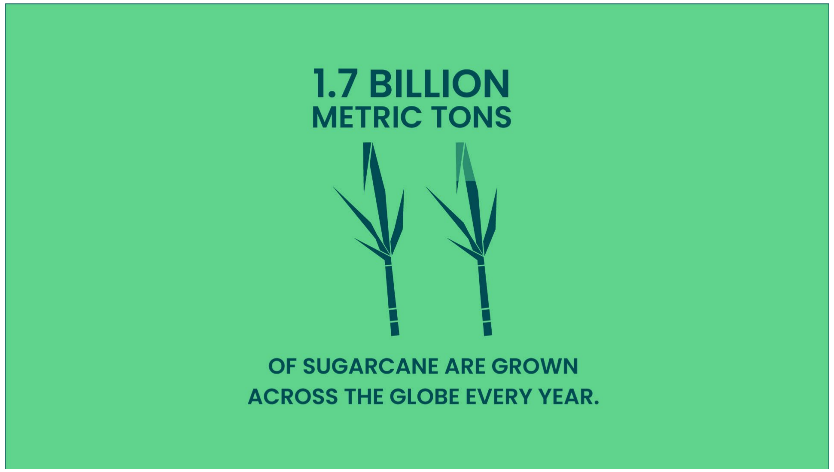
Supply and Demand: The Market for Mental Health Care

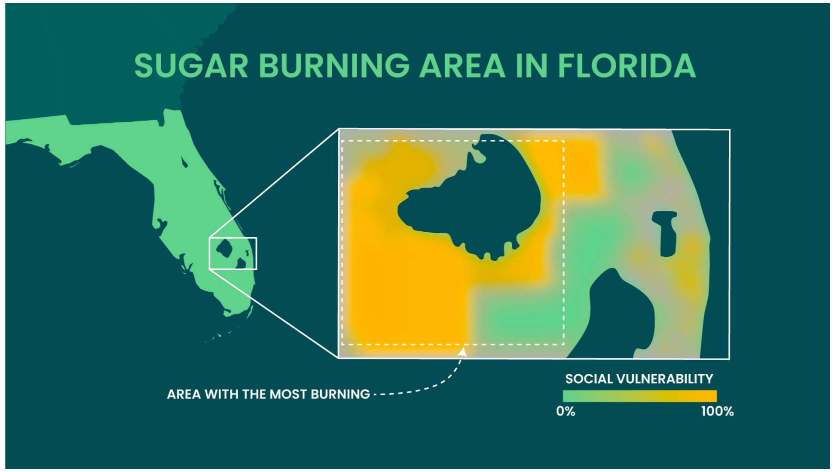


Episode #2

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

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 pedagogical approach to embedding research pact of the videos on student continuation in economics courses?

Data: Instructor feedback and faculty workshops

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