

Scholar Spotlights! A Curricular Intervention to Enhance Students' Perceptions of Relevance and Belonging in Principles of Macroeconomics

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Abstract

This paper describes a curriculum and pedagogy to use throughout a principles of macroeconomics course that enhances students' perceptions of course relevance and sense of belonging in economics classes, with a particular focus on enhancing these experiences for women, students of color, and first-generation students, populations of students that are underrepresented in the economics discipline. Building off of the ideas and resources in [Bayer \(2021\)](#), I propose a curriculum that highlights current scholars applying class content to timely social and economic issues that directly apply to standard principles of economics content. I put an emphasis on scholars with backgrounds under-represented in the economics discipline and I also put an emphasis on younger scholars, so that students might see scholars with identities not too different from themselves working and doing research in economics. Finally, I brought it alive with a photo of the scholar. With survey evidence gathered from my students at the end of the semester, I find that large proportions of all demographic subgroups felt a strong sense of belonging and found the content relevant. Approximately one-third of students display evidence of a fixed mindset, with the problem more evident among female and first-generation students.

Keywords: Belonging, relevance, diversity, gender, undergraduate economics education
JEL Codes: A13, A22, A31

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1 Introduction

It is well documented that economics college classrooms suffer from under-representation of women, racial and ethnic minorities, and people from lower socioeconomic backgrounds. [Buckles \(2019\)](#) finds that while women make up 56% of all U.S. undergraduate students, they account for less than 30% of economics majors. [Lundberg and Stearns \(2019\)](#) find that by the mid-2000s, women made up just under 35% of PhD students in economics and only 30% of assistant professors, and that there has been no progress in the 15 years that followed. [Bayer and Rouse \(2016\)](#) similarly find that less than 30% of economics undergraduate degrees are awarded to women and less than 14% of economics undergraduate degrees are awarded to minority students. In contrast, approximately 56% of undergraduate degrees in other social sciences are awarded to women and 28% of social science degrees are awarded to minority students. [Stansbury and Schultz \(2023\)](#) find under-representation from lower socioeconomic backgrounds in U.S. economics doctoral programs, relative to the other academic disciplines and the U.S. population in general. They find the problem is especially prevalent among U.S.-born economics PhDs, suggesting the problem begins earlier in U.S. undergraduate economics classes. [Bayer and Wilcox \(2019\)](#) also document the under-representation of women and racial and ethnic minorities and outline several recommendations for universities, employers, and the American Economic Association.

The problem is not unique to economics. [Ganley et al. \(2018\)](#) contribute evidence that female college students are underrepresented in STEM fields, and show that women's choices for STEM majors depend significantly on their perceptions of bias in the field. [Murphy et al. \(2007\)](#) showed that female students in a STEM course showed a stronger sense of belonging when exposed to a video intervention on STEM research that showed a balance of men and women, as compared to students who were shown a video with less representation of women. [Price \(2010\)](#) identifies both gender and racial gaps in representation of STEM majors. They find evidence that black-vs-white racial gaps narrow when black students are taught by black instructors. [Carrell et al. \(2010\)](#) find evidence that instructor identity influences gender gaps in student performance in college STEM courses. They find a positive effect of having a female instructor on female student performance, with a particularly large impact on students who were high performing in high school.

The impact of instructor identity on gender and racial gaps in student performance has been demonstrated across college fields of study. [Fairlie et al. \(2014\)](#) show in a community college population that racial and ethnic gaps in grade performance and retention fall when students take classes with instructors with underrepresented racial and ethnic backgrounds. [Hoffmann and Oreopoulos \(2009\)](#) find small, but statistically significant positive effects on a student's performance and retention when an instructor's gender matches the student's.

While hiring a diverse group of instructors can help close performance gaps, there are also opportunities for instructors from every background to take steps to address issues of underrepresentation and students' feelings of belonging. [Murphy et al. \(2020\)](#), [Yeager et al. \(2016\)](#), and [Broda et al. \(2018\)](#) show that belonging interventions led college students from underrepresented populations to have higher grades, higher full time enrollment rates, and report higher feelings of belonging. [Purdie-Vaughns et al. \(2008\)](#) show in a professional setting that demonstrating that diversity is valued leads to lesser feelings of identity-threat among African Americans and a greater feeling of

trust.

[Bayer et al. \(2019\)](#) show a simple intervention valuing diversity can have a positive impact in the economics discipline. They show that welcome email messages to new college students that showcased the diversity of research and researchers in economics led to a more diverse pool of students in introductory economics classes. [Bayer et al. \(2020a\)](#) find that the problem in introductory economics courses may lie in issues of students' feelings of belonging and their perceptions of relevance of the course material. They find that women and students from underrepresented racial and ethnic groups report lower perceptions of course relevance and lesser feelings of belonging.

[Bayer et al. \(2020b\)](#) describe how they address issues of relevance and belonging with a newly-developed introductory economics course at Harvard University. The curriculum was policy-focused and grounded in real-world applications, timely social issues, and scholarly inquiry. The authors report the course achieved a 50/50 gender balance in student enrollment and was among the highest-rated courses at Harvard University. The economics discipline has been calling for more relevant curriculum for at least two decades. [Becker \(2003\)](#) argues that the growth in college degrees in business stems from students' perceptions that the business disciplines address real-world applications, but suggest that economics college classrooms lagged behind with professors "delivering dry make-believe examples that have little to do with students' lives." [Ghosh and Rahman \(2011\)](#) and [Wooten et al. \(2020\)](#) each provide examples for making the economics curriculum more current and relevant. [Bowles and Carlin \(2020\)](#) present a re-imagined economics curriculum that is relevant to modern-day challenges and values, including issues of economic inequality, climate change, and financial stability.

Based on much of the same evidence cited here, [Buckles \(2019\)](#) and [Bayer and Rouse \(2016\)](#) describe interventions and curricular strategies for improving gender and racial/ethnic gaps in the economics discipline. [Bayer \(2021\)](#) presents a wide online library of curriculum and interventions to introduce to the economics classroom to diversify the economics discipline.

This paper builds off of these contributions to present a curricular intervention targeting relevance and belonging to enhance an otherwise standard principles of macroeconomics curriculum. The intervention is woven through the whole curriculum and is present in every unit and every week of the course. At least once per week, I present a "Scholar Spotlight" that highlights real people doing real, current, and relevant research in economics. The spotlights demonstrate curricular relevance by showing real people applying the concepts from the class, with an emphasis on social justice and policy-oriented applications. The spotlights are designed to enhance students' feelings of belonging by showing scholars from a wide variety of backgrounds, with an emphasis on scholars from lesser-represented populations.

I used these scholar spotlights throughout the semester in four sections of principles of macroeconomics over Fall 2022 and Spring 2023 at the University of Wisconsin-La Crosse (UWL), a public regional comprehensive university, serving primarily Wisconsin residents. According to the 2022 UWL Fact Sheet, only 10% of UWL student identify as students of color, approximately one-quarter of students are first-generation, and about 58% of all students are female ([University of Wisconsin-La Crosse, 2022](#)).

I surveyed the students at the end of each term to measure their feelings of belonging and their

perceptions of relevance of the economic curriculum. The survey also measured students views on mindset. Mindset refers to the view held by people on whether intelligence can grow with work and effort. The view that intelligence is a fixed trait is referred to as a 'fixed mindset'. The correct view that intelligence can grow with work and effort is called a 'growth mindset'. [Dweck \(2008\)](#) shows that a growth mindset can lead to better academic performance and higher achievement, and that growth mindset can reduce racial and gender performance gaps in mathematics and science. [Bayer et al. \(2020b\)](#) identifies mindset as another important avenue for improving student success and reducing gender and racial performance gaps in the economics discipline. While the curricular innovation presented in this paper does not specifically target mindset, feelings of belonging and relevance may be related to mindset. [Murray et al. \(2022\)](#) finds evidence that instructors can have a positive influence student mindset with actions not directly targeting mindset.

I compare the results across genders and across first-generation students versus non-first-generation. Unfortunately, I was not able to compare students' experiences across race. At an institution with a predominately white student body, I had too few observations of non-white students to report disaggregated statistics by race. The results show that large proportions of these student subgroups feel a strong sense of belonging and find the economics content relevant. Approximately one-third of all students displayed some evidence of a fixed mindset, which was more evident among female and first-generation students.

2 Enhanced Curriculum: Scholar Spotlights

With every topic, in every week of the semester class (except exam weeks), I present one or more scholar spotlights. Students see an example of a current economics researcher expanding our knowledge of the world in a way that directly applies the principles-level content covered in this week. The spotlights show students that the class content is alive and that careers in the discipline are for everyone. Principles of macroeconomics is not just the collective contributions of mostly dead, mostly white men. The scholar spotlights show students that academics from diverse backgrounds are conducting research to further our understanding macroeconomics and the economic issues our country and world are facing today.

These scholar spotlights have the following features:

- Current: All the research comes from published papers in the last five years or are current working papers.
- Diverse representation: The scholars include a large representation of women and people of color.
- Emphasis on young scholars: Many scholars are in their early or middle career, and possibly at an age where students may see themselves in the not-too-distant future.
- Photo of the scholar: The spotlight is more than a dry bibliographic reference. Showing a photo allows students to visualize real people doing meaningful work.
- Mix of well-known and not-so-well known scholars: Spotlighting well known and well accomplished scholars from underrepresented backgrounds helps demonstrate that people from

such backgrounds can become leaders in the field. Spotlighting also less-highly accomplished scholars, but still with successful careers, may resonate with students as they may envision themselves reaching a similar level of success.

- Scholars at my own institution: I highlight my colleagues and even myself to show students their own instructors and people they see every day in the hallways are also involved in advancing economics knowledge and using insights to improve our world. I even have an example of research co-authored with recent undergraduate students.
- Framed at a principles-level: I do not require or even suggest that my students read the papers. Many of the papers I highlight are beyond the scope of the course. But the paper's purpose, main conclusion, or even just the context and the background, are framed around the principles content.
- Applies standard textbook principles content: We use the graphical models found in popular principles-level textbooks to understand the contribution.
- Modern issues: Several scholar spotlights address issues of economic inequality, climate change, automation, education, health, and economic development.
- Embedded and integrated in the curriculum: The scholar spotlight does not come at the end of a class or the end of a section, as an aside that seems separate from the content that students must spend time and effort with homework and studying. The scholar spotlight is in the middle of a lecture. It is the content. It is another example or an application of the class content.
- Part of active learning: Each scholar spotlight is accompanied by an in-class exercise that is similar in context and rigor as other exercises and exam questions. This reinforces that the work current scholars are involved in is the course curriculum.

With attention to all these features, I intend to demonstrate to my students throughout the semester that the principles of macroeconomics content is relevant, that students and scholars from all backgrounds can feel like they belong, and that students from all backgrounds can succeed in the field.

The curriculum builds directly from [Bayer \(2021\)](#) who has put together an online library of curricular resources together with support from the American Economic Association and the Federal Reserve Bank of New York. These resources highlight current contributions from economics scholars from diverse backgrounds and include professionally-produced videos with the scholar describing their work. Some of these examples are applicable to the principles class, meet the features above, and are included in the scholar spotlights. Other contributions highlighted in the online library I have found more applicable to upper-level classes or only tangentially related to the principles content. I supplemented some examples from [Bayer \(2021\)](#) with several other scholarly contributions.

[Table 1](#) provides descriptions for 15 scholar spotlights I used in my principles of macroeconomics courses in 2022-2023. The table includes the bibliographic reference and identifies the principles of macroeconomics concept that the work relates to. [Figure 1](#) show the slides of scholar spotlights as they were presented to my students. For each spotlight, I used both the slide shown in the figure and a whiteboard to illustrate how the principles content of the day applies to the contribution.

Table 1: Description of the Scholar Spotlights

Scholar(s)	Reference	Description	Principles Topic(s)
Lisa Cook & Nala Richardson	"Can addressing inequality unleash economic growth? (Cook et al., 2021)	Using U.S. patent data, the authors show that racial inequality in access to innovation from 1870-1960 led to negative outcomes for affected individuals and the overall U.S. economy. The authors find improved access in the following 50 years accounted for 25% of growth in the United States.	Production possibilities frontier, economic growth
Sheida Teimouri	"Housing prices and import competition" (Teimouri and Zietz, 2023)	An increase in U.S. international trade with China led to declines in employment in some import-competing industries. The authors estimate how the drop in income in heavily trade-exposed counties affected housing prices.	Supply and demand, international trade
Caludia Sahm	"The effect of Hurricane Matthew on consumer spending" (Aladangady et al., 2016)	Using new detailed high-frequency expenditure data, the authors track how demand for necessities and luxuries evolved before, during, and after a major hurricane.	Supply and demand
Zsuzsanna Csereklyei	"The effect of wind and solar power generation on wholesale electricity prices in Australia" (Csereklyei et al., 2019)	Australia and other developed economies experienced rising electricity prices at the same time as wind and solar energy production expanded. The authors find the marginal effect of increases in wind and solar energy has been to lower electricity prices, while increasing global natural gas prices at the same time led to increases in electricity prices.	Supply and demand

Table 1 (continued): Description of the Scholar Spotlights

Scholar(s)	Reference	Description	Principles Topic(s)
Markéta Arltová	"The Impact of Economic Sanctions on Russian Economy and RUB/USD Exchange Rate" (Tyll et al., 2018)	The authors describe movements in the exchange rate between the U.S. Dollar and the Russian Ruble following Russia's annexation of Crimea in 2014 and during the sanctions from Western countries that followed. The authors also describe Russia's response to restrict imports, and the impact this had prices for goods and services in Russia.	Exchange rates, international trade, supply and demand
Hie Joo Ahn	"Measuring labor-force participation and the incidence and duration of unemployment" (Ahn and Hamilton, 2022)	The authors identify calculation errors in official Bureau of Labor Statistics unemployment and labor force participation statistics. They find that correctly identifying previously missed new entrants into the labor force leads to higher estimates for unemployment, labor force participation, and lower average unemployment duration.	Measuring labor force and unemployment
Kerwin Kofi Charles	"Housing Booms, Manufacturing Decline, and Labor Market Outcomes" (Charles et al., 2018)	Demonstrated the impacts that simultaneous housing booms and declines in manufacturing affected employment in the United States from 2000-2006. The authors conclude that without the housing boom, employment declines in the U.S. would have been larger and come earlier.	Labor market supply and demand

Table 1 (continued): Description of the Scholar Spotlights

Scholar(s)	Reference	Description	Principles Topic(s)
Daron Acemoglu & Pascual Respreto	"Automation and New Tasks: How Technology Displaces and Reinstates Labor" (Acemoglu and Restrepo, 2019)	The authors describe how automation has both a displacement effect on employment and a productivity effect. The first leads to lower demand for labor as employers use capital and new technologies instead of labor for production. The second effect leads to an increase in aggregate labor demand, as automation leads to the creation of new tasks. They conclude that neither one effect nor the other always dominates U.S. labor markets.	Labor market supply and demand
Ellora Derenoncourt	"Spillover Effects from Voluntary Employer Minimum Wages" (Derenoncourt et al., 2021)	The authors find statistical evidence of a positive spillover on labor market wages when major employers such as Amazon, Walmart, and Target, voluntarily institute company-wide increases in the minimum wages they pay.	Labor market supply and demand
Valerie Ramey	"Macroeconomic Consequences of Infrastructure Investment" (Ramey, 2021)	Ramey describes how deficit-financed government expenditures on infrastructure can have positive effects on private investment and labor demand, when infrastructure complements private capital, and how larger government budget deficits can crowd out private investment in the short-run.	Loanable funds market, saving supply and investment demand
Nabamita Dutta & Haley Maus	"Share of Women in Parliament and Health and Educational Outcomes" (Dutta and Maus, 2021)	The authors use a panel dataset for 70+ countries over several decades to show that more female representation in elected government positions leads to better health and educational outcomes for both men and women.	Economic growth and development

Table 1 (continued): Description of the Scholar Spotlights

Scholar(s)	Reference	Description	Principles Topic(s)
Stefanie Stantcheva	"Dancing with the Stars: Innovation through Interactions" (Akcigit et al., 2018)	The authors use data from the European Patent Office to show how human capital and innovation can grow through positive externalities with interaction with peers.	Economic growth and development
Maarten De Ritter	"Multiplier Effect of Education Expenditure" (De Ridder et al., 2020)	The authors estimate local expenditure multipliers for Pell grant disbursements to low income students. The authors find an expenditure multiplier approximately equal to 2.5, which is larger than most other government spending and transfer payment multipliers.	Expenditure multiplier
James Murray	"Fiscal Policy Reactions and Impact Over the Labor Income Distribution in the United States" (Murray, 2023)	The author estimates fiscal policy effects on labor income for eight different fiscal policies on different points in the labor income distribution. I find that the most effective fiscal policies for the lowest income group also tend to widen the income gap, as they are even more effective for the highest income groups.	Aggregate supply and demand, labor supply and demand
Veronica Guerrieri	"Monetary Policy in Times of Structural Reallocation" (Guerrieri et al., 2021)	The authors identify one source of inflation in 2021 was due to a reallocation away from services to durable goods. With downward sticky prices and an inelastic response to production in durables, this led to inflation, shortages in durable goods, and unemployment in services sectors. While the situation may resemble a situation of cost-push stagflation, the authors demonstrate that monetary easing is appropriate for the situation.	Monetary policy, aggregate supply and demand

3 Methodology

I invited my students to complete a survey at the end of Fall 2022 and Spring 2023. Participation in the survey was optional and the students that chose to participate agreed to participate after given an informed consent statement.¹ The purpose of the new curriculum is to enhance students' feelings of belonging and students perceptions of curricular relevance. I measured these views, along with demographic information on the students, and their views on growth versus fixed mindset.

The following questions captured demographic information to explore differences by gender and students' parents' education:

- What is your gender?
 - Male
 - Female
 - Self identify: (textbox for answer)
 - Prefer not to answer
- What is the highest level of education achieved by any of your parent(s) or guardian(s)?
 - Less than high school graduate
 - High school graduate or equivalent
 - Some college (no degree attained)
 - Two-year degree (associates degree, technical degree, vocational degree, community college degree, etc.)
 - Four-year bachelor's degree
 - Graduate degree (master's degree, J.D. law degree, doctorate degree, etc.)

The following questions captured students' views on the relevance of the curriculum:

- Please rate your agreement to the following statements on the following scale:
4) Strongly agree, 3) Agree, 2) Disagree, 1) Strong disagree.
 - I could find examples in the class that related to my life.
 - I could find examples in the class that likely will relate to my future career.
 - We discussed important real-world issues in class.
 - The class gave me a useful framework for thinking about important issues.

The following questions captured students' sense of belonging in the class and in the economics discipline:

- Please rate your agreement to the following statements on the following scale:
4) Strongly agree, 3) Agree, 2) Disagree, 1) Strong disagree.

¹The survey and data collection procedure was approved by the University of Wisconsin-La Crosse Institutional Review Board for the Protection of Human Subjects on April 8, 2022.

Figure 1: Scholar Spotlights for Principles of Macroeconomics



Figure 1: (continued) Scholar Spotlights for Principles of Macroeconomics

Scholar Spotlight: Kerwin Kofi Charles

Housing Booms, Manufacturing Decline, and Labor Market Outcomes *Economic Journal*, 2018 (with E. Hurst and M. Notowidigdo)

Offsetting Effects

Manufacturing 2000-2006:

Automation and international trade led to declines in demand for manufacturing employment

Housing Boom 2000-2006:

Increased demand for housing

→ Temporary increased demand construction labor

Without housing boom: employment declines would have been larger and come earlier



Dr. Kerwin Kofi Charles
Dean and Professor of Economics
Yale School of Management

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Scholar Spotlights for Principles of Macroeconomics

Scholar Spotlight: Ellora Derenoncourt

Spillover Effects from Voluntary Employer Minimum Wages

Under review at *Quarterly Journal of Economics*, 2021

(with Clemens Noelke, David Weil, and Bledi Taska)

Voluntary Increases in Wages

Some large employers have recently instituted company-wide increases in minimum wages paid to employees

Examples (with data): Amazon, Walmart, Target, CVS, and Costco

Estimate an increase in wages at other firms approximately 25% of the increase at the large firms

Estimate small decreases in employment



Dr. Ellora Derenoncourt
Assistant Professor of Economics
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Scholar Spotlights for Principles of Macroeconomics

Scholar Spotlight: Nabamita Dutta and Haley Maus

Share of Women in Parliament & Health & Educational Outcomes

Journal of Economic Development, 2021

Better Health and Human Capital

Data: 70+ countries from 1974-2003

Health outcomes children under 5 yrs, HIV/AIDS treatment, vaccination rates

Post-high school education rates

Controls for real GDP per capita, urbanization, financial development, etc.

Result: More female representation in parliament leads to better health and education outcomes for men and women



Dr. Nabamita Dutta (left)
Professor, UW-La Crosse

Haley Maus (right)
Graduate of UW-La Crosse

Curated by James M. Murray, Ph.D. (jmurray@uwla.edu)

Scholar Spotlights for Principles of Macroeconomics

Spotlight: Daron Acemoglu & Pascual Restrepo

Automation and New Tasks: How Technology Displaces and Reinstates Labor, *Journal of Economic Perspectives*, Spring 2019.

Displacement + New Tasks

Displacement effect: Automation decreases in demand for certain types of labor, increases in demand for capital instead

Productivity effect: Automation leads to creation of new tasks, increase in demand for other types of labor

Stagnation in labor demand in last decade due to the displacement effect

No one effect always dominates the other



Dr. Daron Acemoglu (left)
Professor of Economics
Massachusetts Institute of Technology

Dr. Pascual Restrepo (right)
Asst Professor of Economics
Boston University

Curated by James M. Murray, Ph.D. (jmurray@uwla.edu)

Scholar Spotlights for Principles of Macroeconomics

Scholar Spotlight: Valerie Ramey

Macroeconomic Consequences of Infrastructure Investment

Published in *Economic Analysis and Infrastructure Investment*

(Editors E. Glaeser and J. Poterba, 2021)

Benefits and Consequences

Short-run: Crowds out private investment (leftward SS shift)

Long-run: Can increase investment if infrastructure complements private capital (rightward I_d shift)

Short-run and long-run positive impact on employment

Lack of empirical evidence for positive effects from ARRA road construction expenditures



Dr. Valerie Ramey
Professor of Economics
University of California-San Diego

Curated by James M. Murray, Ph.D. (jmurray@uwla.edu)

Scholar Spotlights for Principles of Macroeconomics

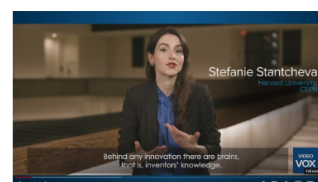
Scholar Spotlight: Stefanie Stantcheva

Dancing with the Stars: Innovation through Interactions

Under consideration at *Econometrica*, 2018.

(with Ufuk Akcigit, Santiago Caicedo, Ernest Miguelez, and Valerio Sterzi)

Knowledgeable workers **make it easier for peers and co-workers to acquire knowledge**.



<https://www.youtube.com/watch?v=U5wfxjmlwtE>

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Scholar Spotlights for Principles of Macroeconomics

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Scholar Spotlights for Principles of Macroeconomics

Figure 1: (continued) Scholar Spotlights for Principles of Macroeconomics

Scholar Spotlight: Maarten De Ritter

Multiplier Effect of Education Expenditure

CEPR Working Paper, 2022 (with Simona Hannon & Damjan Pfajfar)

Expenditure Multipliers of Pell Grants

Pell grants: \$30 billion federal program to help low income students attend college in the United States

Estimated local multiplier effects: Additional income earned in cities and towns with colleges and universities with Pell grant recipients

Expenditure multiplier ≈ 2.5

Larger than most estimated multipliers, including defense spending multipliers



Dr. Maarten De Ridder
Assistant Professor
London School of Economics

Scholar Spotlight: James Murray

Fiscal Policy Reactions and Impact Over the Labor Income Distribution in the United States, Working Paper 2023**Multipliers Different Across Income Distribution**

Examines fiscal policy multipliers (eg: increases in government spending, decreases in taxes, increases in unemployment benefits)

Impact to labor market income for earners at bottom 25%, median, and top 25%

Increases in government *investment* and cuts to *corporate* taxes have the largest effects on earnings at every level

Largest benefits to highest income levels

The most effective fiscal policies for lowest income levels also widen income gap

Unemployment benefits raise *labor* earnings at lowest income levels, but not others



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Scholar Spotlight: Veronica Guerrieri

Monetary Policy in Times of Structural Reallocation

Prepared for the 2021 Jackson Hole Economic Policy Symposium

(with Guido Lorenzoni, Ludwig Straub, and Iván Werning)

Stagflation in 2021

During COVID, demand decreased for *services*, increased for *durable goods*

Downward sticky prices: Unemployment increases in services sector

Upward flexible prices: Durable goods more expensive

Slow to increase production: Shortages in durable goods

Outcomes: Unemployment, inflation, and shortages, all at once



Dr. Veronica Guerrieri
Ronald E. Tarrson Professor of Economics
William Graham Faculty Scholar
Booth School of Business
University of Chicago

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- I felt like the students in ECO 120 supported one another.
- I felt like the instructor cared about whether I was learning the material.
- I expect people from diverse racial backgrounds are represented in the economics discipline.
- I expect people with different gender identities are represented in the economics discipline.
- I felt like I belonged in the class.

Finally, the questions below captured students' mindset. Responses toward disagree suggest a growth mindset, the correct view that intellectual skill levels can be changed with productive learning strategies and the right amount of effort.

- Please rate your agreement to the following statements on the following scale:

4) Strongly agree, 3) Agree, 2) Disagree, 1) Strong disagree.

- People can learn new things, but a person can't really change their basic level of intelligence.
- People naturally have a certain amount of ability for economics analysis and they can't do much to change it.
- People naturally have a certain amount of mathematical ability and they can't do much to change it.

4 Results

There were 68 students that answered the survey, which is a response rate of approximately 30%. There were 42 students that identified as female, 21 that identified as male, and 5 students that did not provide an answer or selecting that they preferred not to answer. There were 20 students that met the definition of a first-generation student based on their parents' highest level of education being something less than a four-year bachelor's degree, and 43 that were not first generation. Finally, of the 68 students, only a very small number reported having a race and ethnicity different from white/non-Hispanic. Such a small sample size lacks statistical power and creates a need to protect confidentiality, so I do not report statistics broken down by race or ethnicity.

Figure 2 shows students' responses to the four questions on relevance. A large majority of students in every subgroup found the course content relevant. Almost 100% students agreed that the class covered important real world issues, and they found that the class provided a useful framework for investigating important issues. Approximately 10% of first generation students did not find examples that could relate to their own lives or their potential careers. Also, approximately 10% of men could not find examples that they thought would relate to their careers, although these people did agree the content related to their lives.

The results of the belonging questions are given in Figure 3. Students overwhelmingly had a positive sense of belonging in the class, for both men and women and for both first-generation and non-first-generation students. A slightly larger percentage of women felt a sense belonging than men. Lack of a sense of belonging is still problematic for some first-generation students. The results reveal that a

larger percentage of non-first-generation students had a sense of belonging relative to first-generation students.

Finally, [Figure 4](#) shows the results on student mindset. This project did not have a focus on mindset and the course did not have an explicit intervention to address fixed mindset. Still, the question on mindset is relevant, because if students' views of belonging and relevance improve, it is possible they might see themselves as interested and able to grow intellectually and professionally. The phrases in the survey described beliefs that intelligence is fixed, so disagreement implies a growth mindset. As such, the colors in the scale are reversed so that the reds imply a fixed-mindset and blues imply a growth mindset, the latter which is most desirable. A large majority of students did reveal a growth mindset. Still, approximately 30% of all students gave responses that implied a fixed mindset, that intelligence is something that someone either has or does not have, and there is not much that one can do to improve that. This was more pronounced for women than men. On a question specifically about mathematical ability, slightly fewer students had a fixed mindset, and on economics ability even fewer students had a fixed mindset. In fact, the percentage of students that revealed a fixed mindset about economics ability was approximately half of those that revealed a fixed a mindset about learning new things generally.

The results suggest that the scholar spotlights may very well have been effective to improve belonging and relevance. Admittedly, a simple end-of-semester survey is not sufficient to establish evidence for causation. The author refers the reader to existing studies for more convincing causal evidence for the benefits of introducing curricular innovations of this nature, such as [Buckles \(2019\)](#). Concerning credible causal estimation, a common standard for research in the economics discipline, [Buckles \(2019\)](#) gives the advice to the American Economic Association that "those willing to work toward greater diversity and inclusion in economics should not ignore the wealth of resources and inventive strategies that do not (yet) meet this standard." The intention of this paper is to contribute one such inventive strategy.

5 Conclusion

Following in the evidence-based suggestions many current economics scholars on improving diversity in the economics discipline, I developed a "scholar spotlights" curriculum to embed into and enhance an otherwise standard undergraduate principles of macroeconomics curriculum. The design of these spotlights aim to enhance students' feelings of belonging in the economics discipline and to enhance their perceptions of the relevance of the curriculum. End-of-semester survey results suggest that student feelings of belonging and perceptions of curricular relevance was very high, across genders and across both first-generation and non-first-generation students. While a majority of students exhibited views for a growth mindset, the proportion exhibiting fixed mindsets is large enough to warrant future work. The evidence suggests the curriculum innovation is a positive step forward to improving diversity in the economics discipline.

Figure 2: Survey results on students' sense of relevance of the class content

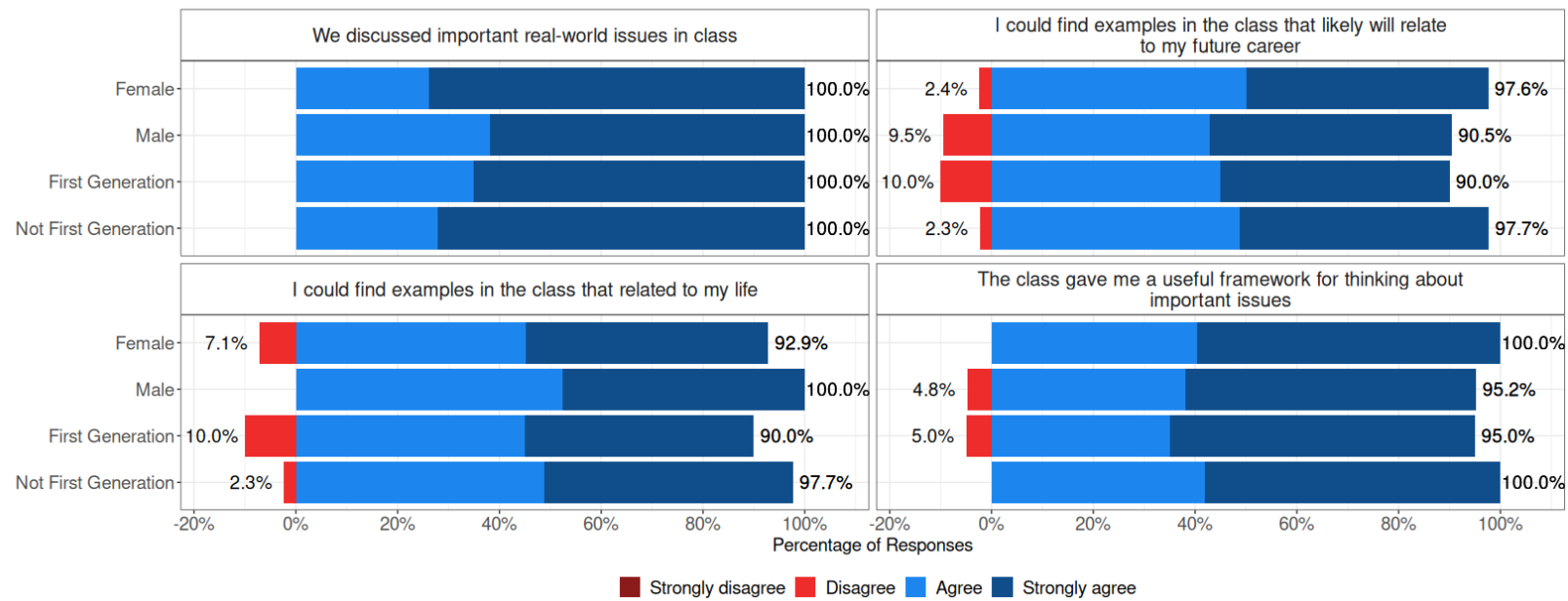


Figure 3: Survey results on students' feeling of belonging in the class and the economics discipline

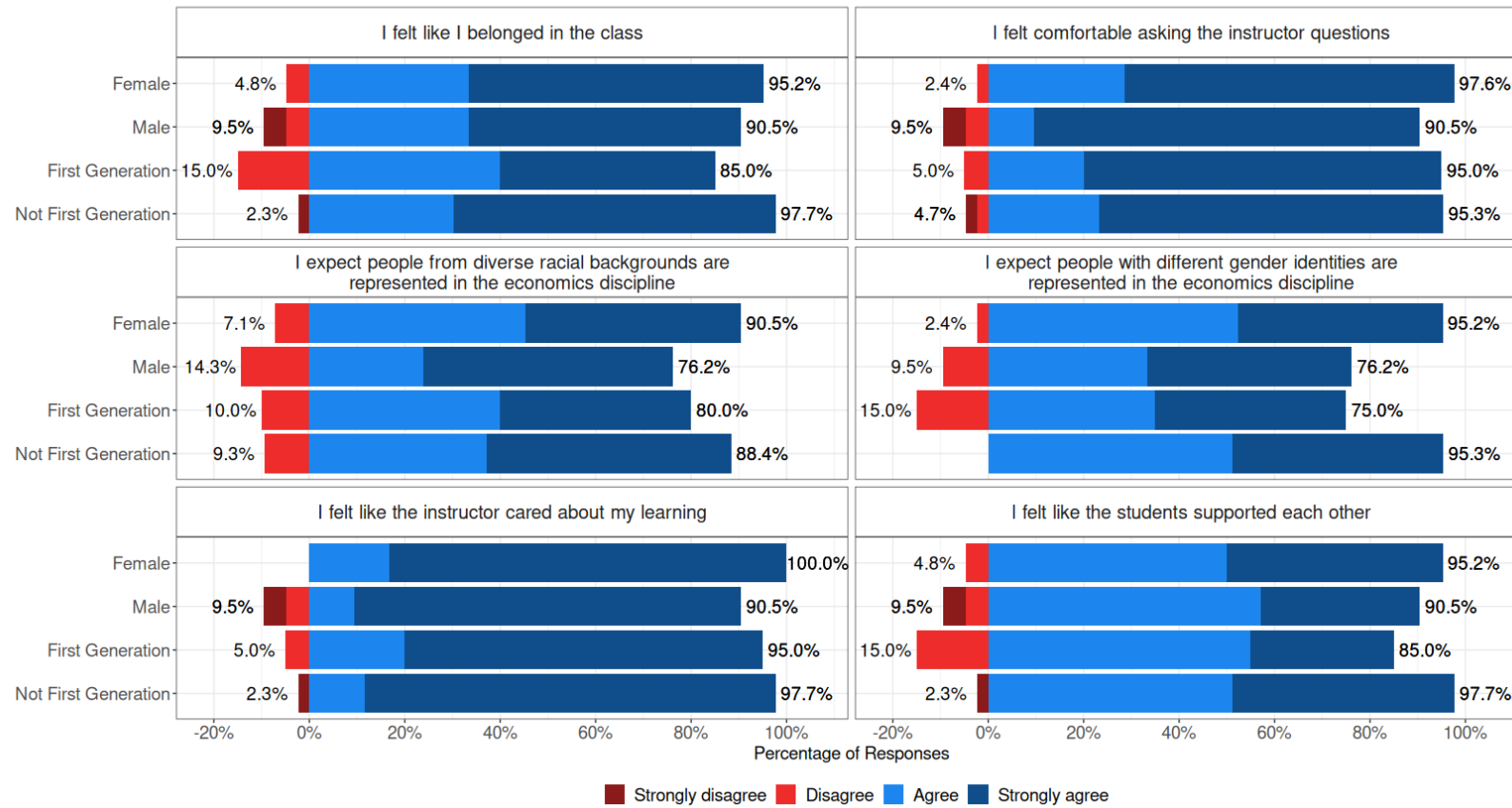
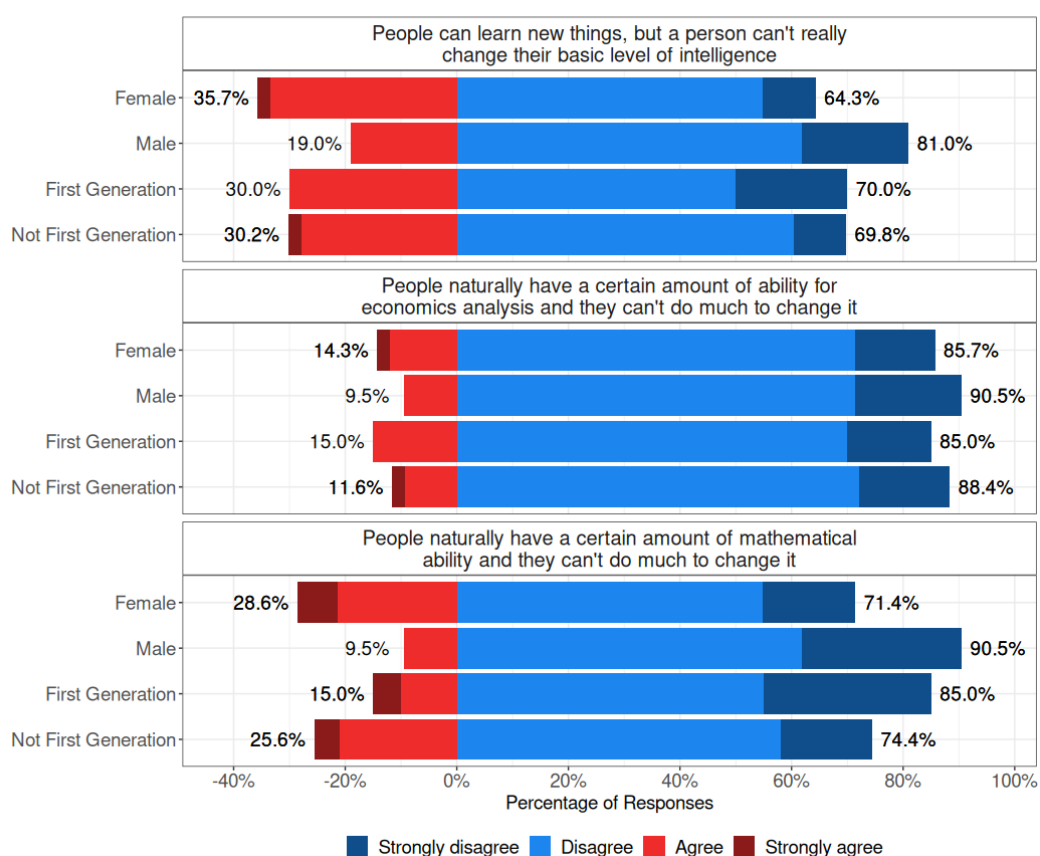


Figure 4: Survey results on students' mindset. Disagreement implies a growth mindset.



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