

# Diversity and Inclusion in Educational Institutions



# Diversity and Inclusion in Educational Institutions

Edited by

Fawzia Reza

Cambridge  
Scholars  
Publishing



Diversity and Inclusion in Educational Institutions

Edited by Fawzia Reza

This book first published 2022

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Copyright © 2022 by Fawzia Reza and contributors

All rights for this book reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN (10): 1-5275-7638-8

ISBN (13): 978-1-5275-7638-4

# CONTENTS

Foreword .....	vii
Acknowledgement.....	ix
Chapter One.....	1
Higher Education Challenges: Women in Economics <i>Inas R. Kelly</i>	
Chapter Two .....	22
Supporting Inclusive Practices within an Online Educational Institution <i>Fawzia Reza, Erin Maurer, and Kenneth Jandes</i>	
Chapter Three .....	49
Increased Engagement, Self-Efficacy, and Social Inclusion in Students with Autism <i>Elizabeth Burke and Belinda Dunnick Karge</i>	
Chapter Four.....	81
The Role of Intercultural Education in Fostering Diversity and Inclusion <i>Marisol de Lafuente Duff and Tony Duff</i>	
Chapter Five .....	103
In Pursuit of Educational Equity: English Language Learners and First-Generation College Students <i>Harpreet Kaur Dhir and Karina Becerra-Murillo</i>	
Chapter Six.....	125
The Untold Institutional and Community Supports of Latina Millennials Pursuing Graduate Degrees <i>Nadia Aguilar and Sharon H. Ulanoff</i>	
Chapter Seven.....	147
Pre-Service Special Education Teacher Self-Reflection and Cultural Reciprocity <i>C. Adrainne Thomas and Shandra Claiborne</i>	

Chapter Eight.....	167
Seeing the World through Other’s Eyes: Diverse Learnings and Participation in University Study Abroad Programs in Belize, Central America <i>Judith McConnell-Farmer (Mikkelson), Lenore Peachin Wineberg, and Tina L. Williams</i>	
Chapter Nine.....	188
The Challenges of Meeting the Holistic Needs of Black, Asian and/or Students Living in Poverty During a Pandemic: Does Cultural or Social Capital Matter? <i>Gwendolyn McMillon, Emily Caylor, Sherrayna Coleman, Mary Patillo-Dunn, and Yong Zeng</i>	
Chapter Ten .....	215
Challenging the Underrepresentation of Native Americans in Higher Education at an Urban, Comprehensive University <i>Janine Gasco and Cheryl McKnight</i>	
Chapter Eleven .....	236
Preparing Pre-Service Teachers to Educate Diverse Learners <i>Annette Mohan and Grace Jepkemboi</i>	
Chapter Twelve .....	246
Student Diversity, Equity, and Inclusion in Community Colleges <i>Adriene Davis</i>	
Chapter Thirteen.....	259
A Perspective on the Role of Educational Equity in Supporting Students <i>Sharon H. Ulanoff</i>	
Chapter Fourteen .....	274
Difficult Conversations: Moving Staff Towards More Inclusive Practices <i>Hillary M. Weissman</i>	
About the Contributors .....	290

## FOREWORD

I have a dream that my four little children will one day live in a nation where they will not be judged by the color of their skin but by the content of their character - Martin Luther King

A cursory view of any classroom will demonstrate that our classrooms have become increasingly diverse; various school administrators have also shared demographic information which illustrates the rich diversity in their schools. However, many educators do not fully understand how to tap into the rich funds of knowledge that every student brings to the classroom. Students who do not belong to the mainstream often do not get completely accepted into the school community. As an immigrant, scholar, and an educator, I have documented and witnessed how being on the periphery affects the social, emotional, and cognitive development of students. The doll test by Clark and Clark (1947) demonstrates how being marginalized and underrepresented impacts children's morale and development. When young children are routinely given negative messages about their race or cultural heritage, they can develop internalized racism; an acceptance of negative and stereotypical images with a negative self-worth, which extends not only to themselves, but to everyone in their race or culture.

It is difficult to provide a concrete/comprehensive definition for diversity because it is open to several interpretations. While many people define diversity only in terms of differences in race or ethnicity, diversity encompasses so much more. For example, it can also include variables such as gender, age, nationality, abilities, sexual orientation, political orientation, nationality, religion, education, socioeconomic background and values and beliefs of an individual. As an educator, I am always adding more to my repertoire of what constitutes diversity and as you review the chapters in this volume, you may discover additional perspectives that you can apply to your own practice.

This collection is a call for action and social justice; a desire to share and implement the vision of Dr. King. To make his dream a reality and successfully implement diversity, equity, and inclusivity, deliberate effort and concrete steps are necessary. Each chapter describes how diversity and

inclusion can be effectively practiced within synchronous and asynchronous institutions. To become a reflective practitioner, we need to be lifelong learners. I hope this book provides you the platform to become one.

## ACKNOWLEDGEMENT

I would like to thank all authors who agreed to contribute to this volume. Your thoughts, expertise, experience, and advocacy for social justice will create greater awareness of initiatives that are being taken to promote diversity and inclusion within educational institutions. Each of you generously donated your time and effort to make this volume possible. I hope that together we can facilitate change such that every student feels welcomed and represented.

I appreciate the opportunity Cambridge Scholars Publishing has provided me to serve as the editor for this book. I would especially like to thank Clementine Joly, my liaison throughout the process. She was always quick to respond to my questions and work diligently with me.

I would also like to thank my husband Ali Reza, who has always encouraged me in my efforts and desire to make a difference. He has been my most ardent supporter and I am truly blessed to have him as my friend, mentor, and a partner.

Finally, I would like to thank my daughters, Tania, and Sonia and my son in law Timothy Copeland for believing in me. Your love has given me the strength to explore uncharted territories.



# CHAPTER ONE

## HIGHER EDUCATION CHALLENGES: WOMEN IN ECONOMICS

INAS R. KELLY

### Abstract

The rampant discrimination against females in higher education, particularly in the field of economics, has spillover effects which affect student decisions. This chapter will examine these challenges in an area largely dominated by white males and how the dismal science is finally coming to a reckoning with its past.

*Keywords:* Economics, Misogyny, STEM, Discrimination, Major Choice

*“Economics is a disgrace. The lack of diversity and inclusion degrades our knowledge and policy advice. We hurt economists from undergraduate classrooms to offices at the White House. We drive away talent; we mistreat those who stay; and we tolerate bad behavior.”<sup>1</sup>*

### Introduction

On Monday, March 8<sup>th</sup>, 2021, there was a panel discussion on “Women in Economics” put together by undergraduate students in economics at Loyola Marymount University. It was International Women’s Day, and one of the students remembered some disturbing statistics about women in economics that had been shared in his econometrics class the previous year. It was also noted that the university was typical of many in that, while it consists of 58% females and 42% males, only 26% of economics majors are female. This is even lower than the national average of 35%, a figure which

---

<sup>1</sup> Claudia Sahm, “Economics Is a Disgrace,” macromom blog, 2020, <https://macromomblog.com/2020/07/29/economics-is-a-disgrace/>.

has declined in recent years.<sup>2</sup> Around 30% of doctoral degrees are awarded to females.<sup>3,4</sup> At the National Bureau of Economic Research, a prominent American private nonprofit research organization founded in 1920, a mere 22.3% of research affiliates are female.

While several recent articles have shed light on the unfortunate state for females in this dismal science,<sup>5</sup> many are unaware of these statistics. The reality is that poor representation by females in the field has been an issue for decades and has only recently come to light – with firm, empirical evidence that is still being ignored by some. For decades it was dismissed as a selection issue: Women do not *choose* economics because they are simply not interested in the subject, because the subject matter does not reflect their general beliefs, because the lifestyle associated with most jobs in the area is not conducive to having a family, or (perhaps the most insulting and evidence has clearly pointed to the contrary) because they are simply not good at it. It was not until results from a survey by the largest national economics organization, the American Economic Association, came out in 2019, that the extent of the toxic environment females in the field were subjected to was brought to light, with half of females reporting discrimination and harassment against them.<sup>6</sup> This in turn received substantial media attention and elicited a formal response by the American

---

<sup>2</sup> Justin Wolfers, “Why Women’s Voices Are Scarce in Economics,” *New York Times*, February 2, 2018, <https://www.nytimes.com/2018/02/02/business/why-womens-voices-are-scarce-in-economics.html>.

<sup>3</sup> Amanda Bayer and Cecilia Elena Rouse, “Diversity in the Economics Profession: A New Attack on an Old Problem,” *Journal of Economic Perspectives* 30, no. 4 (2016): 221–42, <https://doi.org/10.1257/jep.30.4.221>.

<sup>4</sup> While this chapter focuses on females, the lack of racial and ethnic diversity in the field is also visible. Only around 8% of doctoral degrees in economics are awarded to African Americans, Hispanics, and Native Americans.

<sup>5</sup> Bayer and Rouse, “Diversity in the Economics Profession: A New Attack on an Old Problem”; Veronika Dolar, “The Gender Gap in Economics Is Huge – It’s Even Worse than Tech,” *The Conversation*, March 2021, <https://theconversation.com/the-gender-gap-in-economics-is-huge-its-even-worse-than-tech-156275>; Shelly Lundberg and Jenna Stearns, “Women in Economics: Stalled Progress,” *Journal of Economic Perspectives* 33, no. 1 (2019): 3–22, <https://doi.org/10.1257/jep.33.1.3>; Shelly Lundberg, ed., *Women in Economics* (VOXeu CEPR, 2020), <https://voxeu.org/content/women-economics>.

<sup>6</sup> American Economic Association Committee on Equity, Diversity and Professional Conduct, “AEA Professional Climate Survey: Final Report,” 2019, <https://www.aeaweb.org/resources/member-docs/final-climate-survey-results-sept-2019>.

Economic Association condemning misogyny<sup>7</sup> and, soon after, a Professional Code of Conduct.<sup>8</sup>

This chapter will focus on the challenges that female economists in higher education face and how these challenges affect the future of the field. A background on the topic is first presented, followed by some relevant data and trends. Possible mechanisms are then explored, with a discussion of why we should care. Potential solutions are then offered.

## Background

In academia in general, females are less likely to be addressed by their professional titles<sup>9</sup> and are generally treated differently. They have a higher service burden and are more likely to agree to tasks that have low promotability.<sup>10</sup> In economics, they are less likely to be promoted,<sup>11</sup> less likely to be given credit for their contributions when co-authoring with males,<sup>12</sup> and are penalized in the presence of gender-neutral stop-the-clock policies,<sup>13</sup> where males end up using that time to conduct research while females spend the time childrearing. Textbooks that students are exposed to are more likely to show females in less prominent roles. In these textbooks, males account for over 90% of leaders and economists mentioned; females are even a minority of fictionalized people and are shown in less serious

---

<sup>7</sup> American Economic Association, “Statement of the AEA Executive Committee,” October 2017, 2017, <https://www.aeaweb.org/news/statement-of-the-aea-executive-committee-oct-20-2017>.

<sup>8</sup> American Economic Association, “AEA Code of Professional Conduct,” April 2018, 2018, <https://www.aeaweb.org/about-aea/code-of-conduct>.

<sup>9</sup> Julia A Files et al., “Speaker Introductions at Internal Medicine Grand Rounds: Forms of Address Reveal Gender Bias,” *Journal of Women’s Health* 26, no. 5 (February 16, 2017): 413–19, <https://doi.org/10.1089/jwh.2016.6044>.

<sup>10</sup> Linda Babcock et al., “Gender Differences in Accepting and Receiving Requests for Tasks with Low Promotability,” *American Economic Review* 107, no. 3 (2017): 714–47, <https://doi.org/10.1257/aer.20141734>.

<sup>11</sup> Donna K Ginther and Shulamit Kahn, “Women in Academic Economics: Have We Made Progress?,” National Bureau of Economic Research Working Paper Series No. 28743 (2021), <https://doi.org/10.3386/w28743>.

<sup>12</sup> Heather Sarsons et al., “Gender Differences in Recognition for Group Work,” *Journal of Political Economy* 129, no. 1 (August 28, 2020): 101–47, <https://doi.org/10.1086/711401>.

<sup>13</sup> Heather Antecol, Kelly Bedard, and Jenna Stearns, “Equal but Inequitable: Who Benefits from Gender-Neutral Tenure Clock Stopping Policies?,” *American Economic Review* 108, no. 9 (2018): 2420–41, <https://doi.org/10.1257/aer.20160613>.

roles, such as food, housework, and fashion.<sup>14</sup> This is often unintentional, as textbook authors attempt to prepare students for the future using dated tools from their past education.<sup>15</sup> They may also be responding to demand (from publishers or perceived demand from professors and students). The authors of the study examining textbooks analyzed eight leading introductory economics textbooks; those by the following authors: Acemoglu, Laibson, and List<sup>16</sup>; Bade and Parkin<sup>17</sup>; Hubbard and O'Brien<sup>18</sup>; Krugman and Wells<sup>19</sup>; Mankiw<sup>20</sup>; McConnell, Brue, and Flynn<sup>21</sup>; Parkin; and Schiller and Gebhardt.<sup>22</sup> They found that 77% of people mentioned in these textbooks are male, with a range of 66% to 90% across the eight textbooks. None of the textbooks met the three criteria for the Symons test,<sup>23</sup> used to analyze gender equality in business case studies: whether a female is included, whether she is in a leadership position, and whether she is speaking to another woman about business. The “Voluntary Economics Content Standards for Pre-College Economics Education,” developed in 1997 for schools, also only served to reinforce the androcentric nature of the field.<sup>24</sup>

---

<sup>14</sup> Betsey Stevenson and Hanna Zlotnik, “Representations of Men and Women in Introductory Economics Textbooks,” *AEA Papers and Proceedings* 108 (2018): 180–85, <https://doi.org/10.1257/pandp.20181102>.

<sup>15</sup> Stevenson and Zlotnik.

<sup>16</sup> Daron Acemoglu, David Laibson, and John List, *Economics*, 2nd ed. (New York: Pearson, 2017).

<sup>17</sup> Robin Bade and Michael Parkin, *Foundations of Economics*, 8th ed. (New York: Pearson, 2017).

<sup>18</sup> R. Glenn Hubbard and Anthony Patrick O'Brien, *Economics*, 6th ed. (New York: Pearson, 2016).

<sup>19</sup> Paul Krugman and Robin Wells, *Economics*, 4th ed. (New York: Worth Publishers, 2015).

<sup>20</sup> N. Gregory Mankiw, *Principles of Microeconomics*, 8th ed. (Boston: Cengage, 2018).

<sup>21</sup> Campbell R. McConnell, Stanley L. Brue, and Sean Masaki Flynn, *Economics: Principles, Problems, and Policies* (New York: McGraw Hill Education, 2017).

<sup>22</sup> Michael Parkin, *Economics*, 12th ed. (New York: Pearson, 2015).

<sup>23</sup> Lesley Symons and Herminia Ibarra, “What the Scarcity of Women in Business Case Studies Really Looks Like,” *Harvard Business Review*, 2014, <https://hbr.org/2014/04/what-the-scarcity-of-women-in-business-case-studies-really-looks-like>; Stevenson and Zlotnik, “Representations of Men and Women in Introductory Economics Textbooks.”

<sup>24</sup> Margaret Lewis and Kimmarric McGoldrick, “Moving Beyond the Masculine Neoclassical Classroom,” *Feminist Economics* 7, no. 2 (January 1, 2001): 91–103, <https://doi.org/10.1080/13545700110059252>.

The discrimination that academic female economists face may partially be attributed to statistical discrimination or implicit bias, which can largely be unintentional in nature. Yet there is now substantial evidence that much of the discrimination against females in economics may be less benign, with overt discrimination and harassment being quite mainstream, rendering the discrimination much more harmful in nature than that in other STEM fields. Almost half (49%) of both white and black female economists reported being discriminated against or treated unfairly on the basis of sex, with 54% of Latina female economists reporting this. In contrast, only 4% of white men, 3% of black men, and 2% of Latino men reported being discriminated against due to gender.<sup>25</sup> As the title of a recent *New York Times* article read, “For Women in Economics, the Hostility is Out in the Open.”<sup>26</sup> This article referenced a recent study that presented further evidence of discrimination against women in economics: that they receive more interruptions and aggressive, derogatory comments during seminars than their male counterparts.<sup>27</sup> The 2019 Nobel Prize in Economic Sciences<sup>28</sup> was won by three prominent economists: Abhijit Banerjee, Esther Duflo, and Michael Kremer. Duflo was the first female economist (and second female) to win the award and, at 46, the youngest recipient. In spite of these clear accomplishments, her contribution was downplayed by several media outlets and she was even referred to only as Banerjee’s wife by one.<sup>29</sup>

One stark example of harassment is represented by the anonymous comments posted by graduate students in economics on the Job Market Rumors website. When women are under discussion, the language tends to be significantly less academic and more personal, often referring to the female economist’s physical appearance and minimizing their professional

---

<sup>25</sup> Committee on Equity, Diversity and Professional Conduct, “AEA Professional Climate Survey: Final Report.”

<sup>26</sup> Ben Casselman, “For Women in Economics, the Hostility Is Out in the Open,” *New York Times*, February 23, 2021, <https://www.nytimes.com/2021/02/23/business/economy/economics-women-gender-bias.html>.

<sup>27</sup> Pascaline Dupas et al., “Gender and the Dynamics of Economics Seminars,” National Bureau of Economic Research Working Paper Series No. 28494 (2021), <https://doi.org/10.3386/w28494>.

<sup>28</sup> The full name for the award is The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel.

<sup>29</sup> Meera Jagannathan, “As Esther Duflo Wins the Nobel Prize in Economics, Here’s the Uphill Battle Women Face in the Field,” *MarketWatch*, October 15, 2019, <https://www.marketwatch.com/story/as-esther-duflo-wins-the-nobel-prize-in-economics-heres-the-uphill-battle-women-face-in-the-field-2019-10-14>.

contributions.<sup>30</sup> For example, the third most common word in posts about females on this website is “hot,” while the third most common word about males is “job.”<sup>31</sup> Often, extremely negative generalizations are made about female economists on this website.<sup>32</sup> This only further reinforces the stereotypical view of males as an “in-group” in the field and females as an “out-group.”<sup>33</sup> This hostile environment can be felt by female faculty members as well as female students, both undergraduate and graduate.

## Data and Trends

Over a century ago, it was rare but not unheard of to find females in the field of economics. Females wrote 6% of dissertations in 1912, a percentage which rose to almost 20% in 1920. Unfortunately, the upward trend did not continue, and the percentage fell back to 7% in 1940.<sup>34</sup> Currently, females represent about 26% of economists.<sup>35</sup>

According to data from the Committee on the Status of Women in the Economics Profession (CSWEP), females now represent about 23% of all economics faculty.<sup>36</sup> Breaking it down according to rank, they make up a low 14% of full professors, 26% of associate professors, and 28% of assistant professors (Figure 1). While the slightly increasing trend for full professors may initially look promising, the stable or slightly downward trend in assistant professors, lower in rank, in recent years suggests that this may not continue, reflecting the “leaky pipeline.”

---

<sup>30</sup> Alice Wu, “Gender Stereotype in Academia: Evidence from Economics Job Market Rumors Forum,” Working Papers (Princeton University, Woodrow Wilson School of Public and International Affairs, Center for Health and Wellbeing., 2017), <https://ideas.repec.org/p/pri/cheawb/2017-09.html>.

<sup>31</sup> Wu.

<sup>32</sup> Wolfers, “Why Women’s Voices Are Scarce in Economics.”

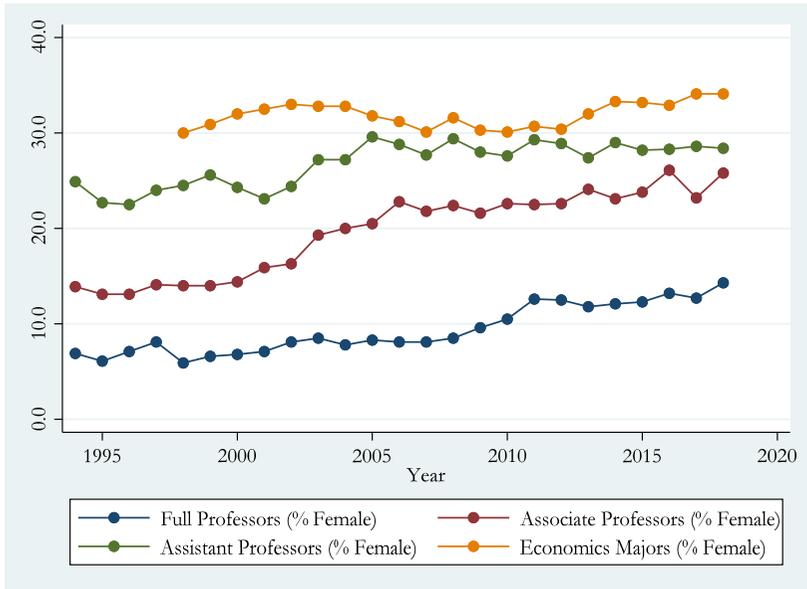
<sup>33</sup> Wu, “Gender Stereotype in Academia: Evidence from Economics Job Market Rumors Forum”; Henri Tajfel and John C Turner, *The Social Identity Theory of Intergroup Behavior*, *Political Psychology: Key Readings*, *Key Readings in Social Psychology*. (New York, NY, US: Psychology Press, 2004), <https://doi.org/10.4324/9780203505984-16>.

<sup>34</sup> Lundberg and Stearns, “Women in Economics: Stalled Progress.”

<sup>35</sup> RePEc, “Female Representation in Economics, as of April 2021,” 2021, <https://ideas.repec.org/top/female.html>.

<sup>36</sup> American Economic Association Committee on the Status of Women in the Economics Profession, “Committee on the Status of Women in the Economics Profession (CSWEP) Annual Survey of U.S. Economics Departments, United States, 1994-2018” (Inter-university Consortium for Political and Social Research [distributor], 2020), <https://doi.org/10.3886/ICPSR37118.v4>.

Figure 1: Trends in Female Faculty and Students, 1994-2018



Note: Author's calculations using data from CSWEP.<sup>37</sup>

The trend over 21 years, between 1998 and 2018, reveals little growth in the percentage of economics majors (Figure 1). In Table 1, we see that the growth over time is at an average annual rate of about 0.26%, insignificant at conventional levels.

<sup>37</sup> Committee on the Status of Women in the Economics Profession, "Committee on the Status of Women in the Economics Profession (CSWEP) Annual Survey of U.S. Economics Departments, United States, 1994-2018."

Table 1: Growth in Economics Majors, 1998-2018

<i>Dependent variable:</i>	Growth in Economics Majors
Time	0.00259 (0.00143)
Constant	3.436** (0.0167)
Observations	21
R-squared	0.148

Standard errors in parentheses

\*\* p<0.01, \* p<0.05

Currently around 34% of economics majors are female (up from 30% in 1998), in spite of females making up about 55% of all undergraduate students. This is in contrast to other STEM fields, in which about 56% of majors are female.<sup>38,39</sup>

In European countries, the trends are similar. In the UK, approximately 15% of full economics professors are female,<sup>40</sup> only slightly higher than in the US. This figure is 23% in the Netherlands.<sup>41</sup> Similarly, in the UK females comprise 57% of all undergraduate students but only 33% of economics majors.<sup>42</sup> The percentages of females in other undergraduate majors are generally higher, such as that for math (37%), statistics (42%), chemistry (42%), medicine (55%), and biology (60%).<sup>43</sup>

<sup>38</sup> Dolar, “The Gender Gap in Economics Is Huge – It’s Even Worse than Tech”; Bayer and Rouse, “Diversity in the Economics Profession: A New Attack on an Old Problem.”

<sup>39</sup> While this is largely driven by biology majors, the sheer popularity of economics as a major makes the low percentages more surprising than, say, figures for engineering.

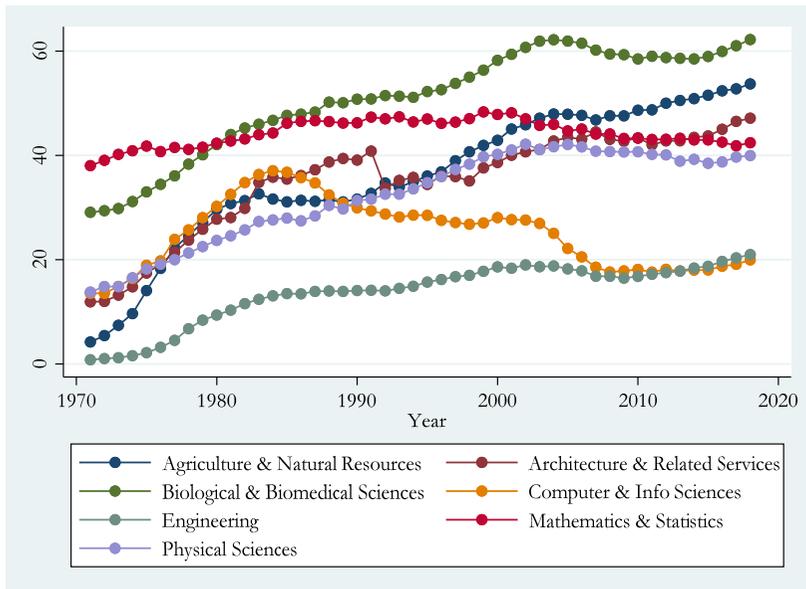
<sup>40</sup> Kim Gittleson, “Where Are All the Women in Economics?,” BBC News, October 13, 2017, <https://www.bbc.com/news/business-41571333>.

<sup>41</sup> Teresa Bago D’Uva and Pilar Garcia-Gomez, “At ESE Females and Non-Dutch Are Lagging behind in Rank and Earnings,” 2020, <https://esb.nu/esb/20060005/at-ese-females-and-non-dutch-are-lagging-behind-in-rank-and-earnings>.

<sup>42</sup> Marina Della Giusta, “Women and Economics,” University of Reading, 2021, <https://www.res.org.uk/uploads/assets/uploaded/508cee63-3e30-457a-803a0c3710d074a4.pdf>.

<sup>43</sup> Giusta.

Figure 2: Trends in Percent Female for STEM Majors, 1971-2018



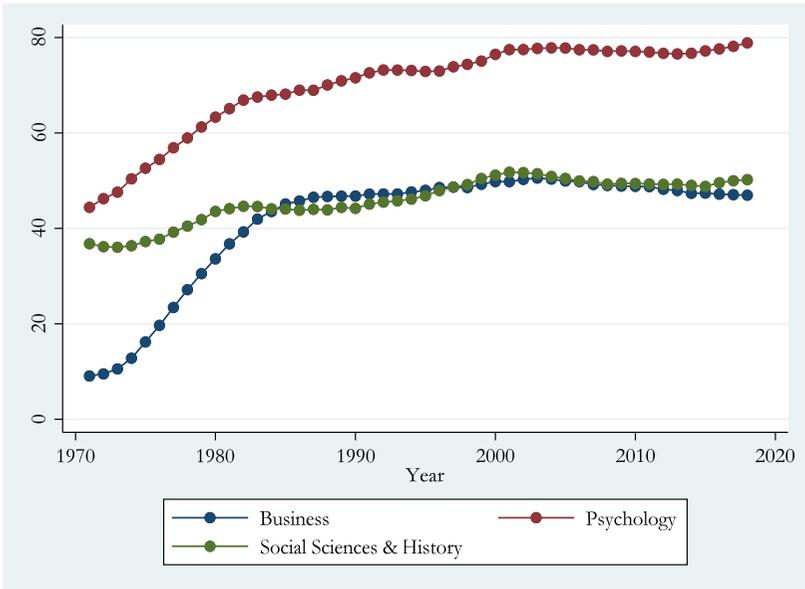
*Note:* Author’s calculations using data from the National Center for Education Statistics (NCES).

Figures 2-4 show trends in the percent of females in STEM fields, social sciences fields, and other fields, respectively, from 1971 to 2018. These data come from the National Center for Education Statistics (NCES). Figure 2 reveals the surge in female representation for biological sciences, from 29.1% in 1971 to 62.2% in 2018. We also see that the only STEM field with a consistently lower female representation than economics is engineering.<sup>44</sup>

Business, however, shows a higher representation of female majors than economics, with a stark upward trend between 1971 (9.1%) and 2003 (50.6%), before falling slightly to 47% in 2018 [Figure 3]. The figure also shows that 50.2% of the general “social sciences and history” category, which encompasses economics, is female.

<sup>44</sup> Note that “computer and information sciences” exhibits an interesting trend, starting at 13.6% in 1971, going up to 37.1% in 1984, then falling to 20% in 2018.

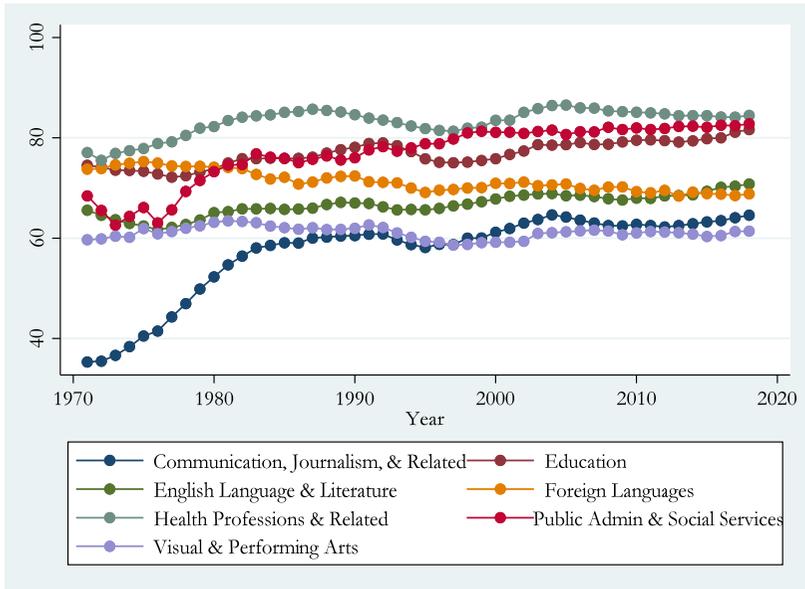
Figure 3: Trends in Percent Female for Social Sciences Majors, 1971-2018



*Note:* Author's calculations using data from the National Center for Education Statistics (NCES).

In contrast, female representation is particularly high in the fields shown in Figure 4. The percentage of females majoring in the following fields is over 60% in 2018: communication and journalism, English language and literature, health professions, visual and performing arts, education, foreign languages, and public administration/social services. For education, almost 82% of majors are female.

Figure 4: Trends in Percent Female for Majors in Other Fields, 1971-2018



*Note:* Author's calculations using data from the National Center for Education Statistics (NCES).

## Exploring Mechanisms

There are several channels whereby we ultimately see fewer female economics majors in undergraduate institutions. Prior theories that should be given less weight include differences in ability and preferences. In terms of preferences, females do have higher probabilities of selecting into areas within economics that have a more microeconomic focus (health, labor, environmental) as opposed to a more macroeconomic focus (growth, development, finance). They are also more likely to be risk-averse.<sup>45</sup> The lack of knowledge of the vast selection of areas within economics when students are first introduced to the subject can be problematic. Addressing this is one potential solution.<sup>46</sup>

<sup>45</sup> Nancy Ammon Jianakoplos and Alexandra Bernasek, "Are Women More Risk-Averse?," *Economic Inquiry* 36, no. 4 (1998): 620–30, <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1465-7295.1998.tb01740.x>.

<sup>46</sup> Lundberg, *Women in Economics*.

Other reasons include the aforementioned hostile environment, lack of female representation,<sup>47</sup> the motherhood penalty,<sup>48</sup> and the institutional structure that allows for gender gaps in salary and promotion to persist. Another reason is that females are more likely to select another major after receiving a poor grade in an introductory economics course, whereas males are more likely to continue with the major even after receiving a poor grade.<sup>49</sup> The authors of the study found, using 16 years of data from a liberal arts college, that the overall economics GPA for female majors was significantly higher than that for males, reflecting their sensitivity to grades in the introductory course.

Janet Yellen, the first female Chair of the Federal Reserve, says that females face obstacles “from the way beginning economics courses are taught to overly aggressive questioning questions in college seminars.”<sup>50</sup> Yellen was appointed as Chair of the Federal Reserve from 2014 to 2018 by President Obama but not reappointed by President Trump. A survey of 1500 professional economists in the U.S. and Canada conducted around 1997 revealed that almost all female economists agreed that there was a “good-old-boy” network in the economics profession.<sup>51</sup> Gender differences in promotion are also rampant, with most recent estimates showing that women in economics are 15% less likely to be promoted from assistant professor to associate professor after controlling for publications, citations,

---

<sup>47</sup> Scott E Carrell, Marianne E Page, and James E West, “Sex and Science: How Professor Gender Perpetuates the Gender Gap\*,” *The Quarterly Journal of Economics* 125, no. 3 (August 1, 2010): 1101–44, <https://doi.org/10.1162/qjec.2010.125.3.1101>.

<sup>48</sup> Donna K. Ginther, “The Economics of Gender Differences in Employment Outcomes in Academia,” in *Biological, Social, and Organizational Components of Success for Women in Academic Science and Engineering*, ed. National Academies Press (US) (Washington (DC), 2006), <https://www.ncbi.nlm.nih.gov/books/NBK23781/>.

<sup>49</sup> Kevin Rask and Jill Tiefenthaler, “The Role of Grade Sensitivity in Explaining the Gender Imbalance in Undergraduate Economics,” *Economics of Education Review* 27, no. 6 (2008): 676–87, <https://doi.org/https://doi.org/10.1016/j.econedurev.2007.09.010>.

<sup>50</sup> Martin Crutsinger, “Yellen Says Women Face Many Obstacles in Economics Careers,” *PBS*, March 8, 2021, <https://www.pbs.org/newshour/economy/yellen-says-women-face-many-obstacles-in-economics-careers>.

<sup>51</sup> William L Davis, “Economists’ Perceptions of Their Own Research: A Survey of the Profession,” *The American Journal of Economics and Sociology* 56, no. 2 (May 19, 1997): 159–72, <http://www.jstor.org/stable/3487253>; Wolfers, “Why Women’s Voices Are Scarce in Economics.”

grants, and grant dollars.<sup>52</sup> This does not take into account the lower likelihood female economists have of publishing and the higher standard they face.<sup>53</sup> In economics, males are tenured at approximately the same rate regardless of whether or not they coauthor. Females, on the other hand, are less likely to receive tenure the more they coauthor.<sup>54</sup>

## Why We Should Care

*“[There is] evidence that it is important to include both men and women economists at the table when formulating and debating economic policy. If demographic differences such as sex help to shape our views on policy questions, the inclusion of women will expand the debate and enlarge the scope of perspectives.”*<sup>55</sup>

An important study has shown that choice of major affects occupational sorting; the authors find that females choose majors with lower potential earnings and subsequently sort into jobs with lower potential earnings conditional on their major choice.<sup>56</sup> Were it only due to preferences, one might argue that the smaller female representation in the field of economics should not be an issue (although one might wonder where the stark differences in preferences are stemming from). Yet increasingly more evidence points to this not being the case. In the presence of discrimination, optimal matches are not taking place. This should not only appeal to our humanity as being inherently *wrong*, but from a societal and economic point of view, this leads to a suboptimal solution from a social welfare standpoint. The stagnant nature of the low percentage of female economics majors has potentially led the whole field to stall and not progress as it should.

---

<sup>52</sup> Ginther and Kahn, “Women in Academic Economics: Have We Made Progress?”

<sup>53</sup> E Hengel, “Publishing While Female. Are Women Held to Higher Standards? Evidence from Peer Review,” Cambridge Working Papers in Economics (Faculty of Economics, University of Cambridge, 2017), <https://ideas.repec.org/p/cam/camdae/1753.html>.

<sup>54</sup> Sarsons et al., “Gender Differences in Recognition for Group Work.”

<sup>55</sup> Ann Mari May, David Kucera, and Mary G. McGarvey, “Mind the Gap,” *Finance & Development, International Monetary Fund* 55, no. 2 (2018), <https://www.imf.org/external/pubs/ft/fandd/2018/06/including-more-women-economists-influences-policy-and-research/may.htm>.

<sup>56</sup> Carolyn Sloane, Erik Hurst, and Dan Black, “A Cross-Cohort Analysis of Human Capital Specialization and the College Gender Wage Gap,” *National Bureau of Economic Research Working Paper Series* No. 26348 (2019), <https://doi.org/10.3386/w26348>.

Female economists offer a different perspective; they are more likely to prefer government intervention, to support environmental protection, to view military expenditures as excessive, and to support interdisciplinary research.<sup>57</sup> These different views offer more solutions to problems from a policy perspective and encourage debate in order to reach the optimal solution. Fields therefore benefit from diversity and exposure to a variety of opinions, which leads to innovation, creativity, and collaboration, and thus moves the field forward. Public policy choices may therefore be expanded due to the novel views introduced by the female gender.<sup>58</sup>

## Possible Solutions

*“Ultimately, the solution to there being too few women in the field is to add more women.”*<sup>59</sup>

Eventually, a change in *culture* needs to take place so that female economists do not feel marginalized. Seeing female representation among faculty is important for female students in deciding on a major. In fact, a higher share of female faculty is correlated with a higher share of female students graduating six years later.<sup>60</sup> Yet there is the so-called “leaky pipeline,”<sup>61</sup> which begins from societal gender differences at a young age and leads to fewer female economics majors, fewer female economics Ph.D.s, and subsequently fewer female faculty members in economics. In

---

<sup>57</sup> May, Kucera, and McGarvey, “Mind the Gap.”

<sup>58</sup> Ann Mari May, Mary G. McGarvey, and Robert Whaples, “Are Disagreements among Male and Female Economists Marginal Atbest? A Survey of AEA Members and Their Views on Economics and Economic Policy,” *Contemporary Economic Policy* 32, no. 1 (January 1, 2014): 111–32, <https://doi.org/https://doi.org/10.1111/coep.12004>; Lundberg, *Women in Economics*.

<sup>59</sup> Larry Bean and Darcy Rollins Saas, “It’s a Good Time to Be a Woman in Economics,” *Federal Reserve Bank of Boston*, March 25, 2021, <https://www.bostonfed.org/news-and-events/news/2021/03/research-womens-history-month-advice.aspx>.

<sup>60</sup> Galina Hale and Tali Regev, “Gender Ratios at Top PhD Programs in Economics,” *Economics of Education Review* 41 (2014): 55–70, <https://doi.org/https://doi.org/10.1016/j.econedurev.2014.03.007>.

<sup>61</sup> Shelly Lundberg, “Report: Committee on the Status of Women in the Economics Profession (CSWEP),” *American Economic Review* 107, no. 5 (2017): 759–76, <https://doi.org/10.1257/aer.107.5.759>; Kasey Buckles, “Fixing the Leaky Pipeline: Strategies for Making Economics Work for Women at Every Stage,” *Journal of Economic Perspectives* 33, no. 1 (2019): 43–60, <https://doi.org/10.1257/jep.33.1.43>.

order to progress, the field of economics needs more majors at the undergraduate level – and yet this is not happening. It has been shown that in societies where gender social norms are well-established, both females *and* males suffer, in that they are forced into roles they would not otherwise have chosen for themselves.<sup>62</sup> (This, an economist would argue, is economically inefficient, leading to a poor match between an individual's skills and their careers and in turn hurting the economy.)

A field experiment shows that female representation matters. Students in the experimental group were exposed to successful women who majored in economics at the same university. The intervention significantly impacted female students' enrollment in further economics classes, increasing the probability of majoring in economics by 8 percentage points, almost doubling the number of majors.<sup>63</sup>

Representation on its own, however, is insufficient. This has only been shown to make a substantial difference when cultural norms supporting diversity and inclusion are well-established.<sup>64</sup> The culture needs to change if we want to see change happen.

Potential solutions include the following: (1) *Better information*. Providing undergraduate student with more information about the vast selection of areas within economics at an early stage can increase female representation.<sup>65</sup> This can be achieved through improving course information, providing more relevant instructional content, and offering comprehensive career counseling. (2) *Encouragement*. Female students can be encouraged directly to major in economics or through the presence of role models.<sup>66</sup> (3) *Mentoring*. Intensive mentoring programs should be offered at each stage of the trajectory from first-year undergraduate student to full professor, to address the leaky pipeline.<sup>67</sup> An example is the

---

<sup>62</sup> Núria Rodríguez-Planas and Natalia Nollenberger, "Let the Girls Learn! It Is Not Only about Math ... It's about Gender Social Norms," *Economics of Education Review* 62 (2018): 230–53,

<https://doi.org/https://doi.org/10.1016/j.econedurev.2017.11.006>.

<sup>63</sup> Catherine Porter and Danila Serra, "Gender Differences in the Choice of Major: The Importance of Female Role Models," *American Economic Journal: Applied Economics* 12, no. 3 (2020): 226–54, <https://doi.org/10.1257/app.20180426>.

<sup>64</sup> Justus A Baron et al., "Representation Is Not Sufficient for Selecting Gender Diversity," *National Bureau of Economic Research Working Paper Series* No. 28649 (2021), <https://doi.org/10.3386/w28649>.

<sup>65</sup> Lundberg, *Women in Economics*; Tatyana Avilova and Claudia Goldin, "What Can UWE Do for Economics?," *AEA Papers and Proceedings* 108 (2018): 186–90, <https://doi.org/10.1257/pandp.20181103>.

<sup>66</sup> Hale and Regev, "Gender Ratios at Top PhD Programs in Economics."

<sup>67</sup> Lundberg, *Women in Economics*.

mentoring program offered to junior and mid-career female economists by the Committee on the Status of Women in the Economics Profession (CSWEP). (4) *Awareness of implicit bias*. Workshops offered by universities for both students and faculty on implicit bias can raise awareness of the differential assessment of men and women, as well as other marginalized groups. (5) *Awareness of consequences*. Noting that not addressing the lack of female representation in the field “limits our collective ability to understand familiar issues from new and innovative perspectives”<sup>68</sup> helps shed light on the ramifications that ignoring this issue can have. (6) *Early intervention*. Empowering girls at a very young age can ensure that gender norms are not established prior to schooling.<sup>69</sup>

There are several initiatives that are raising awareness about the importance of females in economics. The largest organization advocating for women in this context is the Committee on the Status of Women in the Economics Profession (CSWEP), established by the American Economic Association in 1971. Other examples include the *Feminist Economics* journal (started in 1994), a *Women in Economics* podcast series at the Federal Reserve Bank of St. Louis,<sup>70</sup> a *Women in Economics Initiative* created by the Centre for Economic Policy Research (CEPR),<sup>71</sup> the Marginal Revolution University web page on Women in Economics,<sup>72</sup> as well as active Women in Economics student organizations at Yale University,<sup>73</sup> the University of California at Berkeley,<sup>74</sup> and Harvard.<sup>75</sup>

These initiatives and organizations can help move the needle forward in a positive direction. They have already shed light on the issue and shown, through careful experimentation, that many of the offered solutions *work*. Economics is an extremely important field for policy and global

<sup>68</sup> Bayer and Rouse, “Diversity in the Economics Profession: A New Attack on an Old Problem.”

<sup>69</sup> Rodríguez-Planas and Nollenberger, “Let the Girls Learn! It Is Not Only about Math ... It’s about Gender Social Norms.”

<sup>70</sup> Federal Reserve Bank of St. Louis., “Women in Economics Podcast Series,” 2021, <https://www.stlouisfed.org/timely-topics/women-in-economics>.

<sup>71</sup> Centre for Economic Policy Research, “Women in Economics,” 2021, <https://cepr.org/content/women-economics>.

<sup>72</sup> Marginal Revolution University, “Women in Economics,” 2021, <https://learn.mru.org/women-economics-series/>.

<sup>73</sup> Department of Economics, “Women in Economics,” Yale University, 2021, <https://economics.yale.edu/eventsseminars/women-in-economics>.

<sup>74</sup> Berkeley University of California, “Undergraduate Women in Economics,” 2021, <https://uweb.berkeley.edu/>.

<sup>75</sup> Claudia Goldin, “Undergraduate Women in Economics,” Harvard University, 2021, <https://scholar.harvard.edu/goldin/UWE>.

sustainability; females can offer new perspectives and encourage collaboration through interdisciplinary work. As educators, we must be concerned not only for the future of our students but that of the health of the world. Addressing this issue through the simple, relatively inexpensive solutions mentioned above would be a step in the right direction.

## Bibliography

- Acemoglu, Daron, David Laibson, and John List. *Economics*. 2nd ed. New York: Pearson, 2017.
- American Economic Association. "AEA Code of Professional Conduct." April 2018, 2018. <https://www.aeaweb.org/about-aea/code-of-conduct>.
- . "Statement of the AEA Executive Committee." October 2017, 2017. <https://www.aeaweb.org/news/statement-of-the-aea-executive-committee-oct-20-2017>.
- Antecol, Heather, Kelly Bedard, and Jenna Stearns. "Equal but Inequitable: Who Benefits from Gender-Neutral Tenure Clock Stopping Policies?" *American Economic Review* 108, no. 9 (2018): 2420–41. <https://doi.org/10.1257/aer.20160613>.
- Avilova, Tatyana, and Claudia Goldin. "What Can UWE Do for Economics?" *AEA Papers and Proceedings* 108 (2018): 186–90. <https://doi.org/10.1257/pandp.20181103>.
- Babcock, Linda, Maria P Recalde, Lise Vesterlund, and Laurie Weingart. "Gender Differences in Accepting and Receiving Requests for Tasks with Low Promotability." *American Economic Review* 107, no. 3 (2017): 714–47. <https://doi.org/10.1257/aer.20141734>.
- Bade, Robin, and Michael Parkin. *Foundations of Economics*. 8th ed. New York: Pearson, 2017.
- Baron, Justus A, Bernhard Ganglmair, Nicola Persico, Timothy Simcoe, and Emanuele Tarantino. "Representation Is Not Sufficient for Selecting Gender Diversity." *National Bureau of Economic Research Working Paper Series* No. 28649 (2021). <https://doi.org/10.3386/w28649>.
- Bayer, Amanda, and Cecilia Elena Rouse. "Diversity in the Economics Profession: A New Attack on an Old Problem." *Journal of Economic Perspectives* 30, no. 4 (2016): 221–42. <https://doi.org/10.1257/jep.30.4.221>.
- Bean, Larry, and Darcy Rollins Saas. "It's a Good Time to Be a Woman in Economics." *Federal Reserve Bank of Boston*, March 25, 2021. <https://www.bostonfed.org/news-and-events/news/2021/03/research-womens-history-month-advice.aspx>.
- Buckles, Kasey. "Fixing the Leaky Pipeline: Strategies for Making

- Economics Work for Women at Every Stage.” *Journal of Economic Perspectives* 33, no. 1 (2019): 43–60.  
<https://doi.org/10.1257/jep.33.1.43>.
- Carrell, Scott E, Marianne E Page, and James E West. “Sex and Science: How Professor Gender Perpetuates the Gender Gap\*.” *The Quarterly Journal of Economics* 125, no. 3 (August 1, 2010): 1101–44.  
<https://doi.org/10.1162/qjec.2010.125.3.1101>.
- Casselmann, Ben. “For Women in Economics, the Hostility Is Out in the Open.” *New York Times*, February 23, 2021.  
<https://www.nytimes.com/2021/02/23/business/economy/economics-women-gender-bias.html>.
- Centre for Economic Policy Research. “Women in Economics,” 2021.  
<https://cepr.org/content/women-economics>.
- Committee on Equity, Diversity and Professional Conduct, American Economic Association. “AEA Professional Climate Survey: Final Report,” 2019. <https://www.aeaweb.org/resources/member-docs/final-climate-survey-results-sept-2019>.
- Committee on the Status of Women in the Economics Profession, American Economic Association. “Committee on the Status of Women in the Economics Profession (CSWEP) Annual Survey of U.S. Economics Departments, United States, 1994-2018.” Inter-university Consortium for Political and Social Research [distributor], 2020.  
<https://doi.org/10.3886/ICPSR37118.v4>.
- Crutsinger, Martin. “Yellen Says Women Face Many Obstacles in Economics Careers.” *PBS*, March 8, 2021.  
<https://www.pbs.org/newshour/economy/yellen-says-women-face-many-obstacles-in-economics-careers>.
- D’Uva, Teresa Bago, and Pilar Garcia-Gomez. “At ESE Females and Non-Dutch Are Lagging behind in Rank and Earnings,” 2020.  
<https://esb.nu/esb/20060005/at-esec-females-and-non-dutch-are-lagging-behind-in-rank-and-earnings>.
- Davis, William L. “Economists’ Perceptions of Their Own Research: A Survey of the Profession.” *The American Journal of Economics and Sociology* 56, no. 2 (May 19, 1997): 159–72.  
<http://www.jstor.org/stable/3487253>.
- Department of Economics. “Women in Economics.” Yale University, 2021.  
<https://economics.yale.edu/eventsseminars/women-in-economics>.
- Dolar, Veronika. “The Gender Gap in Economics Is Huge – It’s Even Worse than Tech.” *The Conversation*, March 2021.  
<https://theconversation.com/the-gender-gap-in-economics-is-huge-its-even-worse-than-tech-156275>.

- Dupas, Pascaline, Alicia Sasser Modestino, Muriel Niederle, Justin Wolfers, and The Seminar Dynamics Collective. "Gender and the Dynamics of Economics Seminars." *National Bureau of Economic Research Working Paper Series* No. 28494 (2021). <https://doi.org/10.3386/w28494>.
- Federal Reserve Bank of St. Louis. "Women in Economics Podcast Series," 2021. <https://www.stlouisfed.org/timely-topics/women-in-economics>.
- Files, Julia A, Anita P Mayer, Marcia G Ko, Patricia Friedrich, Marjorie Jenkins, Michael J Bryan, Suneela Vegunta, et al. "Speaker Introductions at Internal Medicine Grand Rounds: Forms of Address Reveal Gender Bias." *Journal of Women's Health* 26, no. 5 (February 16, 2017): 413–19. <https://doi.org/10.1089/jwh.2016.6044>.
- Ginther, Donna K. "The Economics of Gender Differences in Employment Outcomes in Academia." In *Biological, Social, and Organizational Components of Success for Women in Academic Science and Engineering*, edited by National Academies Press (US). Washington (DC), 2006. <https://www.ncbi.nlm.nih.gov/books/NBK23781/>.
- Ginther, Donna K, and Shulamit Kahn. "Women in Academic Economics: Have We Made Progress?" *National Bureau of Economic Research Working Paper Series* No. 28743 (2021). <https://doi.org/10.3386/w28743>.
- Gittleton, Kim. "Where Are All the Women in Economics?" *BBC News*, October 13, 2017. <https://www.bbc.com/news/business-41571333>.
- Giusta, Marina Della. "Women and Economics." University of Reading, 2021. <https://www.res.org.uk/uploads/assets/uploaded/508cee63-3e30-457a-803a0c3710d074a4.pdf>.
- Goldin, Claudia. "Undergraduate Women in Economics." Harvard University, 2021. <https://scholar.harvard.edu/goldin/UWE>.
- Hale, Galina, and Tali Regev. "Gender Ratios at Top PhD Programs in Economics." *Economics of Education Review* 41 (2014): 55–70. <https://doi.org/https://doi.org/10.1016/j.econedurev.2014.03.007>.
- Hengel, E. "Publishing While Female. Are Women Held to Higher Standards? Evidence from Peer Review." Cambridge Working Papers in Economics. Faculty of Economics, University of Cambridge, 2017. <https://ideas.repec.org/p/cam/camdae/1753.html>.
- Hubbard, R. Glenn, and Anthony Patrick O'Brien. *Economics*. 6th ed. New York: Pearson, 2016.
- Jagannathan, Meera. "As Esther Duflo Wins the Nobel Prize in Economics, Here's the Uphill Battle Women Face in the Field." *MarketWatch*, October 15, 2019. <https://www.marketwatch.com/story/as-esther-duflo-wins-the-nobel-prize-in-economics-heres-the-uphill-battle-women->

- face-in-the-field-2019-10-14.
- Jianakoplos, Nancy Ammon, and Alexandra Bernasek. “Are Women More Risk-Averse?” *Economic Inquiry* 36, no. 4 (1998): 620–30. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1465-7295.1998.tb01740.x>.
- Krugman, Paul, and Robin Wells. *Economics*. 4th ed. New York: Worth Publishers, 2015.
- Lewis, Margaret, and Kimmarie McGoldrick. “Moving Beyond the Masculine Neoclassical Classroom.” *Feminist Economics* 7, no. 2 (January 1, 2001): 91–103. <https://doi.org/10.1080/13545700110059252>.
- Lundberg, Shelly. “Report: Committee on the Status of Women in the Economics Profession (CSWEP).” *American Economic Review* 107, no. 5 (2017): 759–76. <https://doi.org/10.1257/aer.107.5.759>.
- . ed. *Women in Economics*. VOXeu CEPR, 2020. <https://voxeu.org/content/women-economics>.
- Lundberg, Shelly, and Jenna Stearns. “Women in Economics: Stalled Progress.” *Journal of Economic Perspectives* 33, no. 1 (2019): 3–22. <https://doi.org/10.1257/jep.33.1.3>.
- Mankiw, N. Gregory. *Principles of Microeconomics*. 8th ed. Boston: Cengage, 2018.
- Marginal Revolution University. “Women in Economics,” 2021. <https://learn.mru.org/women-economics-series/>.
- May, Ann Mari, David Kucera, and Mary G. McGarvey. “Mind the Gap.” *Finance & Development, International Monetary Fund* 55, no. 2 (2018). <https://www.imf.org/external/pubs/ft/fandd/2018/06/including-more-women-economists-influences-policy-and-research/may.htm>.
- May, Ann Mari, Mary G. McGarvey, and Robert Whaples. “Are Disagreements among Male and Female Economists Marginal Atbest? A Survey of AEA Members and Their Views on Economics and Economic Policy.” *Contemporary Economic Policy* 32, no. 1 (January 1, 2014): 111–32. <https://doi.org/https://doi.org/10.1111/coep.12004>.
- McConnell, Campbell R., Stanley L. Brue, and Sean Masaki Flynn. *Economics: Principles, Problems, and Policies*. New York: McGraw Hill Education, 2017.
- Parkin, Michael. *Economics*. 12th ed. New York: Pearson, 2015.
- Porter, Catherine, and Danila Serra. “Gender Differences in the Choice of Major: The Importance of Female Role Models.” *American Economic Journal: Applied Economics* 12, no. 3 (2020): 226–54. <https://doi.org/10.1257/app.20180426>.
- Rask, Kevin, and Jill Tiefenthaler. “The Role of Grade Sensitivity in Explaining the Gender Imbalance in Undergraduate Economics.”