### Nobel Laureates in Economics: International Collaboration and Social Impact

By Dr. Sandip K. Sureka and Kellie S. Wilkerson



Word cloud of official prize motivation of all the Nobel Prizes in Economics (1969-2023)

### **Table of Contents**

Executive Summary	1
I. Introduction	3
II. Immigrant Nobel Laureates by Nativity	5
III. Social Impact, International Collaboration, and Recent Trends	10
A. Young Immigrant Economists	11
B. Women in Economics	13
IV. Biographies of Select Past Nobel Laureates	15
V. Biography of 2023 Nobel Laureate	23
VI. Summary	27
About the Authors	28
Acknowledgements	28
About the IIR	28
Endnotes	29

#### **Executive Summary**

In this report, we identify the institutional affiliation and country of birth of Nobel Laureates in economics to highlight the importance of immigrant economists at the highest level of academic research in the discipline. The seminal works of economists enrich the theories and empirical methodologies that are used across disciplines in the social sciences. Often, economists play key roles in devising socioeconomic policies.

Nobel Laureates are a small group of scholars, but they collaborate with many other researchers across international borders and across disciplines. We highlight the international collaboration and professional activities of select Nobel Laureate economists to understand how economists contribute to knowledge creation at the global scale. Often, Nobel Laureates born outside of the United States contribute to social science research in the United States through their U.S. professional affiliation. U.S. native-born economists, along with immigrant economists, have established the United States and U.S. institutions as the global center for research in the discipline.

Economics is a fast-expanding discipline, and economists from relatively newer research areas are increasingly being awarded the Nobel Prize. Therefore, we also look at notable awards and accolades for young economists to identify possible future trends in the composition of immigrants among future Nobel Laureates and other prizes in the field.

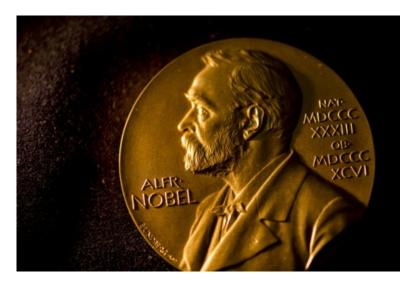


PHOTO CREDIT: Alexander Mahmoud

This year, the Nobel Prize in Economics was awarded to Claudia Goldin, who is the third woman to receive this award. In this report, we feature a biography of Claudia Goldin, along with profiles of four Nobel Laureates in Economics, their notable research, and the real-life implications of their work. Consistent with this year's award, we feature short biographies of both women previously awarded the Nobel Prize in Economics. We also highlight the contribution of George A. Akerlof, who is a second-generation immigrant, and Amartya Sen, a

December 2023

foreign Nobel Laureate who has made important contributions to U.S. academia.

#### **Key findings of the report include:**

- Immigrant Nobel Laureate economists: One out of every four Nobel Prizes in economics are awarded to U.S.-based immigrant\* economists. This rate is the highest among all the Nobel Prize categories.
- International collaboration: Immigrant, native-born, and non-U.S. scholars all benefit the U.S. discipline of economics through professional affiliations, scholarly collaborations, and research projects that transcend borders.
- Economists as policy advocates: Through both their research and roles as policy advisors, economists impact society in positive ways.
- Women in economics: Economics has historically been a male-dominated discipline, but women's representation is increasing. While the gender disparity in awardees of the Nobel Prize in Economics will likely prevail in the near future, there is potential for this gap to narrow over time.

<sup>\*</sup>Please note that the terms "immigrant" and "foreign-born" are used interchangeably throughout this report. Foreign-born refers to individuals who are not U.S. citizens at birth or who were born outside the United States, Puerto Rico, or other U.S. territories and whose parents are not U.S. citizens. The foreign-born may include naturalized U.S. citizens, Legal Permanent Residents, temporary residents, refugees and asylees, and others. Second-generation immigrants are U.S.-born individuals who have at least one foreign-born parent. Native born includes those who are U.S. citizens at birth, those born in the United States, Puerto Rico, or other U.S. territories, and those born abroad to a parent who is a U.S. citizen.

#### I. Introduction

The Nobel Prize is among the most prestigious awards in the world. The Nobel Prize is named after Alfred Nobel, who donated a large share of his wealth to establish the prize. The Nobel Prize has been awarded since 1901 to individuals and organizations for significant contributions in physics, chemistry, physiology or medicine, literature, and peace.



PHOTO CREDIT: © Nobel Media. Photo: Clément Morin

Later in 1968, the Nobel Foundation added economic sciences as another category for which the prize is awarded. Since 1901, Nobel Prizes have been awarded 621 times. Between 1901 and 2023, 965 individuals and 27 organizations have won Nobel Prizes (5 people and 2 organizations have won the Nobel Prize multiple times). Historically, the majority of Nobel Prizes were awarded to men. Since 1901, only seven percent of the individual Nobel Laureates (63 out of 965 Laureates) have been women. However, the gender gap in Nobel Prize recipients has narrowed slowly, with 56 percent of all female Laureates (35 women) being awarded the prize between 2001 and 2023 (see Figures 7 and 8 for detailed information about women Laureates by category and over time). Although the Nobel Prize is awarded globally, 46 percent of Nobel Laureates (441 individuals) were affiliated with U.S. institutions and 34 percent of the U.S.-affiliated Nobel Laureates (151 individuals) were immigrants. Among the 2023 recipients, 7 out of 11 Nobel Laureates (64 percent) are U.S.-affiliated, 4 of whom are immigrants to the United States. At 34 percent, the immigrant share among U.S.-affiliated Laureates is more than double the proportion of all immigrants in the United States, which currently stands around 14 percent.

The first Nobel Prize in Economics was awarded in 1969. The award was established based on a donation from Sweden's central bank, Sveriges Riksbank. Therefore, the award is officially known as the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel (referred to hereafter as the Nobel Prize in Economics). Economics is the only discipline in the social sciences that is awarded a Nobel Prize. The prize has been awarded 55 times to 93

individuals since the inception of the award.<sup>3</sup> Primarily, the Nobel Prize in Economics is awarded to economists for their contributions in the development of economic theories or methodological contributions in empirical analysis. For example, Paul Romer won the Nobel Prize in 2018 "for integrating technological innovations into long-run macroeconomic analysis."<sup>4</sup> His theoretical model explains the role of private investment in research and development for long-run economic growth. Joshua D. Angrist and Guido W. Imbens (an immigrant from the Netherlands) won the prize in 2021 "for their methodological contributions to the analysis of causal relationships."<sup>5</sup> They used natural experiments (policy changes, historical events, etc.) to determine the causal relationship between different variables.

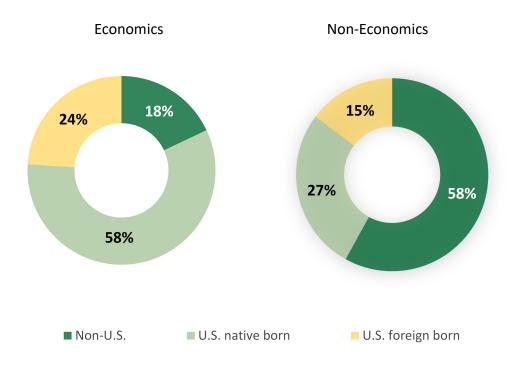
The Nobel Prize is awarded to economists from a range of research areas within economics; commonly, each year's prize features economists from a different area than the previous year. Fifty-three percent of prizes (29 out of 55) have been awarded to multiple scholars. When multiple economists are awarded the prize in one year, they typically come from the same area of research. Oftentimes, the Nobel Prize is awarded to economists who have done research that has implications for recent socioeconomic issues. For example, following the financial crisis of 2007-2009, Eugene F. Fama, Lars Peter Hansen, and Robert J. Shiller were awarded the Nobel Prize in 2013 "for their empirical analysis of asset prices." The financial crisis was associated with a sharp fall in housing prices and price volatility of financial assets like collateralized debt obligations.

#### What Do Nobel Prize Winners Receive?

Nobel Prize awardees receive a diploma, a medal, and prize money equivalent to \$1 million in 2023. A Nobel Prize can be awarded to up to three individuals or organizations within each prize category. When a Nobel Prize is shared by multiple awardees, the prize money is divided among them based on the prize-share determined by the Nobel Foundation for each awardee. A person or organization who receives the Nobel Prize is known as a "Nobel Laureate."

#### **II. Immigrant Nobel Laureates by Nativity**

In this section, we look at the importance of immigrants among all Nobel Prize winners. Using information from the Nobel Foundation, we identify each individual Laureate's country of institutional affiliation, as defined by the institutional affiliation indicated in the official prize announcement. It should be noted that country of affiliation does not imply country of citizenship or any particular immigration status, such as lawful permanent resident. Using biographical information from the Nobel Foundation and other sources, we identify the city of birth of each individual Laureate. We categorize each Nobel Laureate into one of the three following types of nativity: U.S. foreign born, U.S. native born, and non-U.S. Laureates. A U.S. foreign born (or immigrant) Laureate is someone who was born outside of the United States, Puerto Rico, or other U.S. territories, and who had primary institutional affiliation with an U.S. institution at the time of the award. U.S.-affiliated Nobel Laureates who were born in the U.S. territories are categorized as U.S. native born. We should note that we categorize native born based on the birth city of the individual, not the citizenship status of the individual's parent. Finally, anyone who was not born in U.S. territories and was not affiliated with an U.S. institution at the time of the award is considered a non-U.S. Nobel Laureate.



**Figure 1: Nativity of Nobel Laureates** 

DATA SOURCE: Data compiled by the IIR based on information from the Nobel Foundation.

Figure 1 shows the nativity of individual Nobel Laureates in economics compared to other prize categories. U.S.-affiliated scholars have dominated the list of economics Nobel Laureates, with 83 percent of the Nobel Laureates in the discipline having had a primary affiliation with a U.S. institution. In contrast, only 42 percent of non-economics Nobel Laureates have a primary affiliation with a U.S. institution. With fourteen Nobel Laureates in economics, the University of Chicago is the leading university in terms of institutionally affiliated individual prize winners. Other top universities include: Harvard University (11), Massachusetts Institute of Technology (9), Princeton University (8) and Stanford University (7). The top two non-U.S. universities with high numbers of Nobel Prize recipients in economics are Cambridge University and the London School of Economics having, respectively, four and three Nobel Laureates in economics.

If we look at the nativity of Nobel Laureates within each category (Figure 2), we can see that economics has the highest fraction of U.S.-affiliated Nobel Laureates (82 percent) followed by Medicine (55 percent). Peace is the category with the lowest fraction of U.S.-affiliated individuals (11 percent). A quarter of Nobel Laureates in economics are immigrants to the United States; this fraction is the largest among all categories of the Nobel Prize.

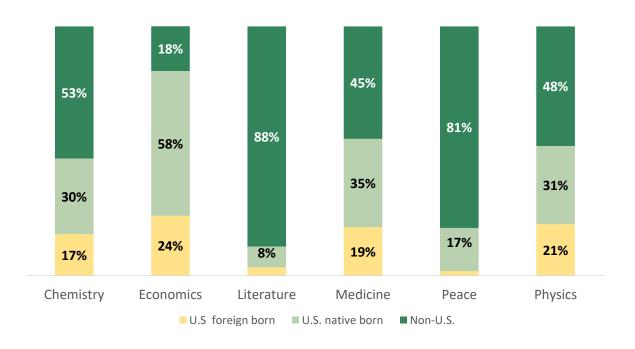


Figure 2: Nativity of All Nobel Laureates by Category

DATASOURCE: Data compiled by the IIR based on information from the Nobel Foundation

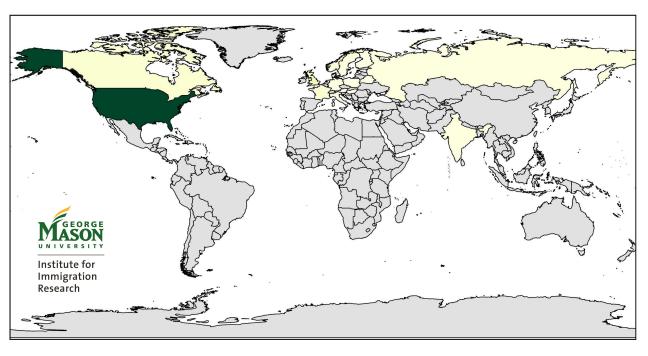


Figure 3: Country of Birth of All Nobel Laureates in Economics

Number of laureates

53 1

DATA SOURCE: Data compiled by the IIR based on information from the Nobel Foundation

Out of the 76 U.S.-affiliated Nobel Laureates in economics, 22 Laureates (29 percent of U.S. Laureates) were born abroad. The percentage of foreign-born Laureates in economics is slightly lower than the percentage of foreign-born in non-economics categories (34 percent). Among the 22 immigrant U.S. Laureates, four were born in Canada and four in the United Kingdom. As Figures 3 and 4 illustrate, all the immigrant Nobel Laureates in economics were born in Asia, Europe, or North America. Most of the immigrant Nobel Laureates in economics obtained graduate education in the United States (Ronald Coase is a notable exception, though Coase was a long-time faculty member at the University of Chicago Law School). As we can see in Figure 5, Nobel Laureates outside of economics come from more diverse countries of origin.

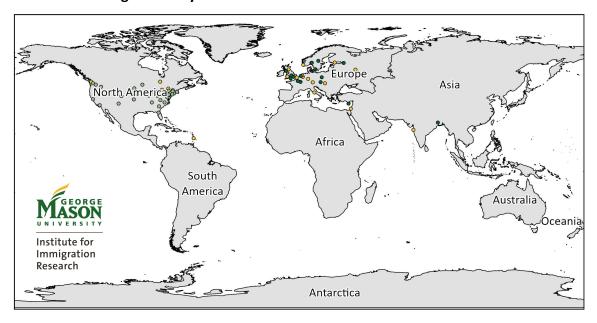


Figure 4: City of Birth of All Nobel Laureates in Economics

- Non-U.S.
- U.S. native born
- U.S. foreign born

DATA SOURCE: Data compiled by the IIR based on information from the Nobel Foundation

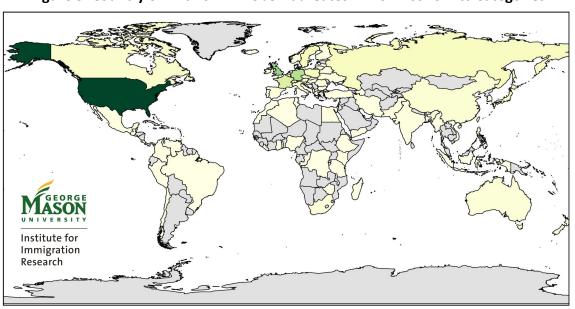


Figure 5: Country of Birth of All Nobel Laureates in Non-Economics Categories

Number of laureates

240 1

DATA SOURCE: Data compiled by the IIR based on information from the Nobel Foundation

Figure 6 shows that the percentage of U.S.-affiliated economists among all the economics Laureates has increased over time. Since 2001, only three economics Nobel Laureates (6 percent) were non-U.S. economists. In most decades, about a third of the U.S.-affiliated Nobel Laureate economists are immigrants. Historically, when we look at the country composition of non-economics Laureates since 1901, we see a steady increase in the frequency of U.S.-affiliated Nobel Laureates after the 1920s. Since the second World War, about half of the non-economics Laureates have been U.S.-affiliated.

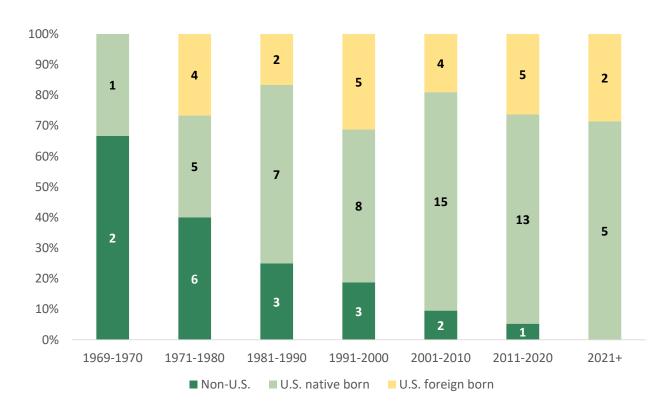


Figure 6: Nativity of Nobel Laureates in Economics over Time

DATA SOURCE: Data compiled by the IIR based on information from the Nobel Foundation

We would like to note that our identification method of immigrant Nobel Laureates only identifies first-generation immigrants. There are, however, certainly native-born Nobel Laureates who are second or higher-generation immigrants. For example, George A. Akerlof (see his biography below) and William Nordhaus won the Nobel Prize in Economics in 2001 and 2018, respectively, and are the children and grandchildren of immigrants. <sup>8,9</sup> Due to limited ancestral information, we do not always identify the second or higher-generation immigrants in our overall analysis.

### III. Social Impact, International Collaboration, and Recent Trends

Through their research, economists play a crucial role in shaping socioeconomic policies. This impact is exemplified by the research of 2021 Nobel Prize winners in economics (see below). Economists also affect government policies in their role as policy advisors. Joseph Stiglitz (2001 Laureate) and Ben Bernake (2022 Laureate) were the chairs of the Council of Economic Advisers (CEA), which advises the President of the United States on economic policy. Ben Bernake has also served as the chairman of the Board of Governors of the Federal Reserve System.

# Research of 2021 Nobel Laureates in Economics and Their Policy Relevance

In 2021, three people were awarded the Nobel Prize: David Card, Joshua Angrist, and Guido Imbens. Angrist, along with his coauthor Alan Krueger, estimated that one additional year of schooling increases yearly earnings by 9 percent. 10 Prior to this study, social scientists had expected that education has a positive effect on individual's earnings, but due to methodological challenges, there was no reliable estimate of the extent of the impact. In other research, Nobel Laureate David Card and his coauthor Alan Krueger found that raising the minimum wage in New Jersey in 1992 had no effect on employment in fast-food restaurants, which challenged the conventional wisdom about the relationship between the minimum wage and unemployment. 11 In a separate study, Card looked at the effect of a large influx of Cuban immigrants in 1980 on Miami's labor market for low skilled workers. Card found that immigration did not have any negative effect on the wage or employment of local workers. 12 Imbens, along with Angrist, were instrumental in laying the foundations of the empirical methodologies that were used in these three studies.

This body of research helped economists uncover important causal relationships and had important relevance to socioeconomic policy, including public investment in school and mandatory schooling laws, minimum wage laws, and immigration.

#### A. Young Immigrant Economists: Contributions to the Expanding Discipline

One of the reasons for a significant share of immigrant Nobel Laureates in economics could be the high number of international graduate students in PhD programs in U.S. institutions. In 2020, 60 percent of PhD recipients in economics were awarded to international students with temporary visas. As indicated by several lists of influential young economists in recent times, we can expect U.S.-affiliated economists to keep dominating the Nobel Prize in Economics in the coming decades, with a mix of native and immigrant economists making the list. For example, 23 of the 2014 International Monetary Fund's (IMF) 25 Brightest Young Economists are U.S.-affiliated, and 14 out of 23 U.S.-affiliated economists are foreign born. Five of the U.S. affiliated immigrant economists and two of the non-U.S. economists in the IMF's list are French. In recent years, economists originating from France are making significant contributions to the U.S. academic economics landscape. The dominance of U.S.-affiliated economists is also evident in the British weekly newspaper *The Economist's* "Decade's Eight Best Young Economists" in 2018. All of the young economists in *The Economist's* list in 2018 are U.S.-affiliated scholars, with a mix of native-born and immigrant Americans.

Economics is an expanding field and we can expect, accordingly, that economists from growing branches of the field will be awarded Nobel Prizes in the future. We have seen in the recent past that economists from relatively newer research areas are being awarded the Nobel Prize. For example, a Nobel Prize in 2019 was awarded to three economists for their contributions in using Randomized Control Trials (RCTs) in development economics (see Esther Duflo's biography below for more about RCTs). This area of research, which draws methodological inspiration from medical clinical trials, became popular beginning in the early 1990s.

In order to get a sense of some of the current areas of influential research, we can look at research areas of leading young economists. For example, the John Bates Clark Medal (or Clark Medal) is the most prestigious prize in economics after the Nobel Prize. It is awarded to U.S.-affiliated economists under 40 years of age. <sup>16</sup> In the last decade, the research areas of Clark Medalists have included inequality, international economics, econometric theory, role of institutions, role of government policy in price settings of firms, market design, market integration, contract theory, discrimination and gender gaps, and the economics of the media. Half of the 26 Clark medalists from the last century have won the Nobel Prize. We are likely to see some economists from these research areas awarded the Nobel Prize in the future. In Table 1, we list selected economists under the age of 60 who have not won the Nobel Prize but who have made significant contributions in their field and have received prestigious awards for young economists.

Table 1: Select Influential Economists Aged Under 60 Years

Name (Age, Country)	Institute	Research Area
Daron Acemoglu (56, Turkey/ United States)	Massachusetts Institute of Technology	Institutions, political economy
Susan Athey (53, United States)	Stanford University	Industrial organization, auction theory, econometrics
Raj Chetty (44, India/United States)	Harvard University	Social mobility
Melissa Dell (40, United States)	Harvard University	Institutions, political economy
Parag Pathak (43, United States)	Massachusetts Institute of Technology	Market design
Thomas Piketty (52, France)	Paris School of Economics	Income and wealth inequality
Emmanuel Saez (50, France/ United States)	University of California, Berkeley	Income and wealth inequality
Gabriel Zucman (36, France/ United States)	University of California, Berkeley	Income and wealth inequality

# B. Women in Economics: The Gender Gap Persists, but More Women are Being Recognized

Women are notably more underrepresented in economics academia than in other social science disciplines.<sup>17</sup> For example, the majority of new PhDs in sociology (63 percent), anthropology (67 percent), and psychology (73 percent) are women. 18 Since the 1990s, women have comprised about one-third of PhD recipients in economics. <sup>19</sup> The gender gap is wider in academic faculty positions in economics, especially in senior positions. However, the proportion of women in senior faculty positions in economics is rising. For example, the percentage of female associate professors in economics in U.S. universities has increased from 11 percent to 23 percent between 1993 and 2017. During the same time period, the fraction of women among full professors in economics has increased from 6 percent to 13 percent. In recent times, women are also getting recognized more frequently with awards and accolades for young economists. Susan Athey became the first woman to receive the Clark Medal in 2007, 60 years after the inception of the award. Since then, four more women have won the award. Seven (28 percent) of the IMF's best young economists and half of The Economist's "Decade's Eight Best Young Economists" are women. Based on these trends, we can expect that an increasing share of the Nobel Prize in Economics will go to women in coming years. We might also see more female Nobel Laureates in economics coming from other disciplines of social science, as was the case for political scientist Elinor Ostrom (see biography below).

International collaboration in economics, like other science disciplines, has been a key feature of Nobel Laureates' research. 20 The collaboration goes beyond one's country of birth and country of organizational affiliation. One of the key differences between the natural sciences and the social sciences, like economics, is that many theories cannot be readily applied across societies. Therefore, economists look to study socio-economic phenomena across countries to understand relationships between different events and policy implications under varying social, political, and economic contexts. In this report, we feature this year's Nobel Laureate in economics along with four additional past Laureates in economics – one from each type of nativity and one second-generation immigrant – to highlight notable international scholarly collaboration. This includes two past female Laureates in economics: Elinor Ostrom, who was U.S. native born, and Esther Duflo, who was an immigrant. There is no foreign female Laureate in economics; therefore, we highlight Amartya Sen as the non-U.S. Laureate. Additionally, we feature George A. Akerlof's biography as a second-generation Nobel Laureate. For each Nobel Laureate, we highlight key work that led to their Nobel Prize and their professional activities across borders. We present the biographies in ascending order of the year in which they won the Nobel Prize.

18% 16% 16% 14% 14% 12% 10% 8% 6% 6% 4% 4% 3% 2% 2% 0% Chemistry Economics Literature Medicine **Physics** Peace

Figure 7: Percentage of Nobel Prizes Awarded to Women by Category

DATA SOURCE: Data compiled by the IIR based on information from the Nobel Foundation

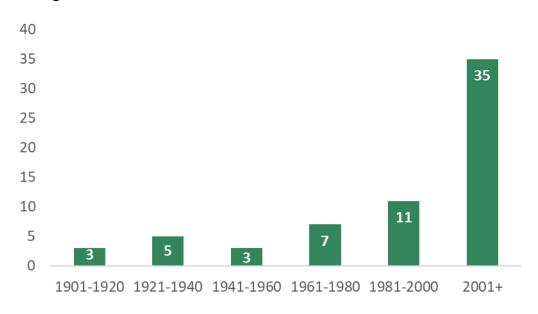


Figure 8: Number of Nobel Prizes Awarded to Women over Time

DATA SOURCE: Data compiled by the IIR based on information from the Nobel Foundation Note: Marie Curie is the only woman to win the Nobel Prize multiple times. She won the prize in physics (1903) and in chemistry (1911). She has been included twice in Figures 7 and 8.

#### **IV. Biographies of Select Nobel Laureates in Economics**

### Amartya Sen: A Non-U.S. Nobel Laureate with Significant Contributions to U.S. Academia

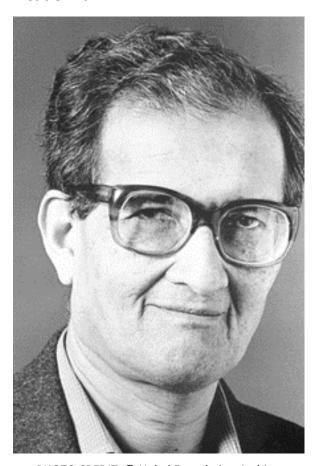


PHOTO CREDIT: © Nobel Foundation Archive

Amartya Sen was recognized in 1998 as the sole winner of The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel. Sen's theoretical and empirical works earned him the Nobel Prize "for his contributions to welfare economics." Sen was born in 1933 to a family of academics in India. He "was born on a University campus and seem[s] to have lived all [his] life in one campus or another." Sen earned his PhD in 1959 from Cambridge University, where he was a faculty member at the time his Nobel Prize was awarded. In the academy, he is regarded as a philosopher and economist.

In applying social choice theory to issues around welfare economics, inequality, and famine, Sen centered his work at the intersection of philosophy and economics. These two fields worked in unison for Sen as

he addressed questions around collective choice and social welfare. His theoretical works explained conditions under which collective decisions, through voting for example, maximize social wellbeing (welfare). Sen's work also laid the foundations for theories of aggregating individual welfare into a measure of social welfare. His theoretical work around welfare economics, famine, inequality, poverty, and addressing the challenges faced by society's poorest incorporates individuals' values into collective decision-making. Amartya Sen viewed welfare from a broader perspective, not just by the measure of per capita income. He developed indices that are more precise and reliable indicators for poverty and development. These indices and variations among them have been used by social scientists to measure the depth of poverty and progress in standards of living in developing countries.

International collaboration has been central to his work, and Sen has been affiliated and held several professorships with universities across India, the United Kingdom, and the United States. Even though he is a non-U.S. Nobel Laureate, he has significantly contributed to U.S. academia through professional affiliations with U.S. institutions that lasted more than 30 years. He has been a professor of Economics and Philosophy at Harvard University and has held academic positions at Cornell University, the University of California at Berkley, and Stanford University. Sen has coauthored with scholars from the United States, the United Kingdom, France, and Belgium. To develop his theories, he has also studied socio-economic events and data from many developing countries.

#### Do All the Famines Occur Because of Food Shortages?

Societal well-being is central to welfare economics, and Sen dedicated his career to addressing these concerns; he came to be known as the "conscience of his profession."<sup>24</sup> After witnessing the Bengal famine of 1943, Sen became invested in engaging with the causes of famine and how social and economic factors could provide practical solutions to alleviating starvation from perceived food shortages.<sup>25</sup> Using historical data on food supply during famines in countries in South Asia and Sub-Saharan Africa, he studied the causes of famine. Contrary to common beliefs, he showed that food shortage is not always the primary reason for famines. He finds, instead, that limited access to food due to many economic and social reasons can cause famine even when there are sufficient quantities of food. His analysis helps us better understand the importance of the distribution of resources in addressing poverty, famines, and other inequalities. 26 Sen's work has been adopted by policy makers and nongovernmental organizations who actively address food crises.<sup>27</sup>

#### George A. Akerlof: A Second-Generation Immigrant Nobel Laureate Economist



PHOTO CREDIT: © Nobel Foundation Archive

George A. Akerlof won the Nobel Prize in 2001 jointly with Michael Spence and Joseph Stiglitz "for their analyses of markets with asymmetric information." Akerlof was born in New Haven, Connecticut in 1940. His Swedish-immigrant father was a member of the chemistry faculty at Yale University. Akerlof believes many of his childhood experiences had a lasting impact on how he thinks and how he views a problem. For example, his father's unemployment during his childhood made him think about the causes of unemployment and inspired him to work on theories of unemployment in macroeconomics.

Akerlof, through his research in economics, challenged several conventional economic theories of his time. In his most cited paper, "The Market for 'Lemons': Quality

Uncertainty and the Market Mechanism," Akerlof explained that when one side of the market has incomplete information about the quality of products or services offered in that market, bad quality can drive out good quality products or services from the market. <sup>29</sup> He applied this idea to explain phenomena observed in several markets. For example, in the market for used cars where buyers of a car have less information about the quality of a used car than the seller, an owner of a used car will only sell a car at the prevailing price if the value of the car (i.e. the quality of the car) is below the market price. That way, at any price, the average quality of cars available in the market will be of value less than the market price. Therefore, in the used car market, good quality cars will not be available. This paper has influenced other research and the concept of markets with information asymmetry has become part of most microeconomics textbooks.

Using the same idea, Akerlof explained why a private market for health insurance for older people might not exist. In the market for health insurance, a potential insured person will have better information than an insurance company about how many health insurance claims will be made. Among the older age group, who needs insurance most, only the individuals who expect that the cost of health care will be higher than the premium for health insurance will buy health insurance. This mechanism will result in fewer healthy people buying health insurance, which will cause the insurance companies to pay more money in claims than the premiums they will receive. Eventually, insurance companies will be reluctant to sell health insurance to older people. He explains this as the rationale for government-provided Medicare for older people.

Akerlof has made theoretical contributions in macroeconomics as well as in microeconomics. George Akerlof is an University Professor at Georgetown University. In the past, he has held professional positions abroad, including in India and the United Kingdom. He often uses his observations in other countries to develop and explain his theories.

# How does a Nobel Laureate Economist Think?

Nobel Laureate George A. Akerlof is in the process of reflecting on insights gained as a child that have carried over to how he has been thinking throughout his career. In a recent conversation with the Institute for Immigration Research (IIR) after a lecture at George Mason University, Professor Akerlof offered one important insight: "To get the right answer, ask the right question."

# Elinor Ostrom: An U.S. Native-Born Nobel Laureate with Research Projects in Other Countries that Helped Her Develop Theories

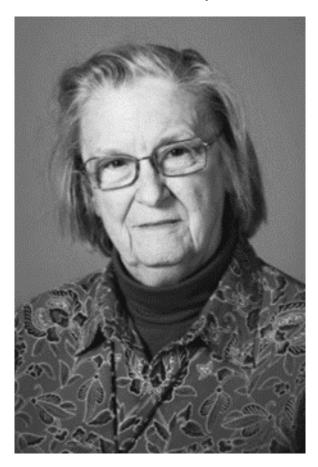


PHOTO CREDIT: © Nobel Foundation Archive

In 2009, Elinor Ostrom became the first woman to win the Nobel Prize in Economics. The Nobel Prize in Economics was awarded for her analyses on "economic governance: the organization of cooperation."<sup>30</sup> Ostrom won "for her analysis of economic governance, especially the commons"31 and shared the prize with Oliver E. Williamson, who focused on the "boundaries of the firm."32 A political scientist by training and practice, Ostrom relied on a different methodological approach than traditional economists, and her fieldwork and observations allowed for development of a newer approach to understand the effectiveness of governance in managing common resources.<sup>33</sup> Born in the United States in 1933, Ostrom has been affiliated with a number of institutions across the nation.

Not only was Ostrom the first woman to win a Nobel Prize in Economics but she was the first in her family to go to college. Ostrom received her undergraduate degree from the University of California, Los Angeles (UCLA). The career opportunities for women were somewhat limited at that time. Elinor states "when I started to look for a position after graduation, it was somewhat of a shock to me to have future employers immediately ask whether I had typing and shorthand skills. The presumption in those days was that the appropriate job for a woman was as a secretary or as a teacher in a grade school or high school." The limited career prospects with an undergraduate degree prompted her to attend a graduate program in economics. However, she could not get into a PhD program in economics, as she had not taken any mathematics courses beyond high-school algebra and geometry, which was a norm for female students at the time. She decided to instead join a PhD program in political science at

UCLA. Political science was also a male-dominated discipline at the time and only 10 percent of her class of 40 students were women.<sup>35</sup>

To develop her theories, Ostrom has also studied the use of common resources in many developing countries including Nepal, Nigeria, and Kenya and has coauthored with scholars from different disciplines within the social sciences.

#### **Are Common Resources Always Overused?**

Ostrom challenged the long-held notion that people collectively overuse natural resources and would not survive in the long-term due to over-exploitation.<sup>36</sup> Ostrom showed that many common resources are efficiently managed by communities and may not be overused. Ostrom utilized evidence of practices in small, local communities that establish shared rules and expectations around natural resource usage and management. These practices allow for resources to be naturally cared for in a way that is sustainable both ecologically and economically.<sup>37</sup>

Based on this evidence, Ostrom developed the Institutional Analysis and Development (IAD) framework to investigate the structure of institutions and their implications for how common resources are used. Using this framework, she identified different types of rules that govern how a common resource could be used and their implications for the sustainability of common resources. She also founded the International Forestry Resources and Institutions (IFRI), which uses the IAD framework to understand the role of government arrangements on forests and forest-dependent communities. IFRI works with organizations from 11 countries in North America, Latin America, Asia, and Africa. Ostrom's work has improved the general understanding of how to conserve common resources through effective governance.

# Esther Duflo: An Immigrant Nobel Laureate with Substantial International Collaboration and Global Impact



PHOTO CREDIT: © Nobel Foundation Archive

At the age of 46, Esther Duflo won the Nobel Prize in Economic Sciences in Memory of Alfred Nobel in 2019. She became the second woman, and youngest ever, to win this prize. She won the Nobel Prize in Economics along with Abhijit Banerjee and Michael Kremer "for their experimental approach to alleviating global poverty." Apart from this prestigious award, the French-American Economist and Professor has received numerous accolades in the United States, including the Elaine Bennett Research Prize (2002) and was a MacArthur Foundation Fellow (2009). Duflo's outstanding achievements in policy evaluation and design have earned her awards internationally.<sup>39</sup>

"I'm short, I'm French, I have a pretty strong French accent," Duflo states. Born in Paris, France, Esther Duflo was raised in a middle-

class educated home, ultimately contributing to her future work. Both parents in the household were science and math focused: her father was a professor of mathematics and her mother a pediatrician. From an early age, Duflo became determined to aid individuals impacted by global poverty. In college at Ecole Normale Supérieure, she was a familiar face at her local soup kitchen and spent time volunteering in a prison. Her interest in the issue of global poverty led her to pursue a degree in economics. In 1999, Duflo earned her PhD in Economics from the Massachusetts Institute of Technology (MIT). She subsequently earned a position at MIT, becoming a Professor of Poverty Alleviation and Development Economics in the Department of Economics.

Esther Duflo has led research projects in many countries, including India, Morocco, Kenya,

Ghana, and Chile (see below). She has also collaborated with researchers from countries around the world. The countries of birth of Duflo's significant co-authors include Belgium, India, the United Kingdom, and the United States.

#### The Use of RCT in Fighting Poverty

While working at MIT, Duflo and two other immigrant researchers, Abhijit Banerjee and Sendhil Mullainathan, created the Abdul Latif Jameel Poverty Action Lab (J-PAL). Her work as a co-founder and co-director significantly improved poverty alleviation strategies. Duflo and her colleagues at J-PAL primarily use Randomized Control Trials (RCTs) to study the effects of different types of interventions on poverty alleviation and other socioeconomic outcomes. In RCTs, researchers choose a sample of the population they want to study. Each person in the sample is randomly divided into two groups: the "treatment group" (the group that receives an intervention) and the "control group" (the group that does not receive the intervention, but is used as a comparison group). J-PAL researchers have studied the effectiveness of many different strategies for improving quality of life, especially among people living in poverty. Over the last 20 years, J-PAL has expanded global branches and conducted research projects in 95 countries. 41 This program's initiatives and research have also impacted poverty alleviation programs in African and Asian countries. 42 Much of J-PAL's research has contributed to policy changes that have impacted the lives of 60 million people across the globe. 43 In Duflo's various publications, she consistently focuses on comprehending impoverished communities in order to contribute to the creation and assessment of social policies. At J-Pal, Duflo has worked in the areas of governance, financial inclusion, education, health, and the environment.<sup>44</sup>

#### V. Biography of 2023 Nobel Laureate

#### Claudia Goldin



PHOTO CREDIT: Harvard University

Claudia Goldin is the Nobel Laureate in economics in 2023. She received the Nobel Prize "for having advanced our understanding of women's labour market outcomes."45 She was born in 1946 in New York, NY. Goldin is a Professor of Economics at Harvard University. This year's award is significant for multiple reasons. First, Goldin is the third woman to win the Nobel Prize in Economics, but she is the first woman to win the award alone. Second, although the role of gender on various aspects of labor market outcomes has been studied by economists for a long time, Goldin is the first Nobel Laureate in economics whose research primarily focuses on women. Her research has helped us better understand the economics of gender, including the

historical female labor force participation, gender wage gap, and the role of expectation in women's careers.

Goldin's research explains that expectations about the future play a key role in women's career trajectories and decisions and, therefore, have important implications for labor force participation and earnings of women. People form expectations based on present and past experience; when women have had fewer career opportunities, their expectations about the future are pessimistic, and they have fewer incentives to invest in education and training. Low investment results in fewer career opportunities when they enter the labor force, even when overall economic career opportunities have improved. In understanding this role of expectations, Goldin's research helps us understand why progress in female labor force participation rates happens slowly. 46

Goldin's research also helps us better understand the historical gender pay gap, the impact of parenthood on women's earnings, and many other aspects of women's experiences in the labor market. Goldin also has studied historical labor markets in Europe to gain comparative insights. Goldin has coauthored with scholars born in Belgium and the United Kingdom, has held a visiting position in Israel, and received honorary doctorates from multiple universities across Europe.

#### **U-Shaped Female Labor Force Participation Rate**

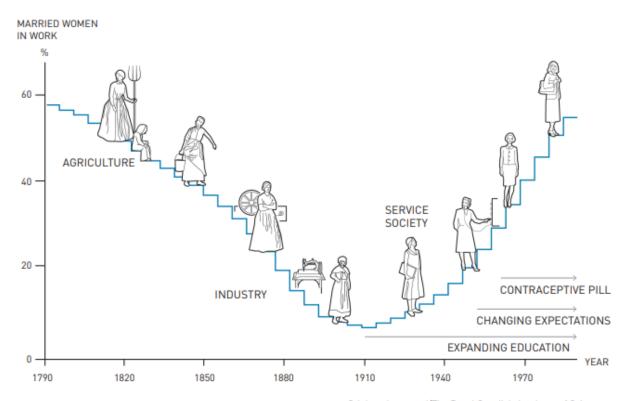
Before Claudia Goldin's research, historical information on female labor force participation was less well known and the reported data were often incomplete. Goldin combined information from historical records and census data to show that the reported female labor force participation rate before the twentieth century was much lower than actual female labor force participation during that time. Goldin identified the source of the underreporting: many women were categorized as "wife" in the census data, when they in fact participated in incomegenerating economic activities like agriculture, textiles, and dairy production. Goldin also showed that the Industrial Revolution of the nineteenth century made it difficult for women to participate in the formal labor force; the rate started to fall and reached its lowest point in the early twentieth century. In more recent time, women's labor force participation has risen in tandem with the availability of effective contraception, expanded educational opportunities, and more optimism about future labor force conditions. All of these historical developments have contributed to a U-shaped historical labor force participation rate for women, with a gradual fall in the rate during the nineteenth century before rising again in the twentieth century.

#### "The Prize in Economic Sciences 2023"



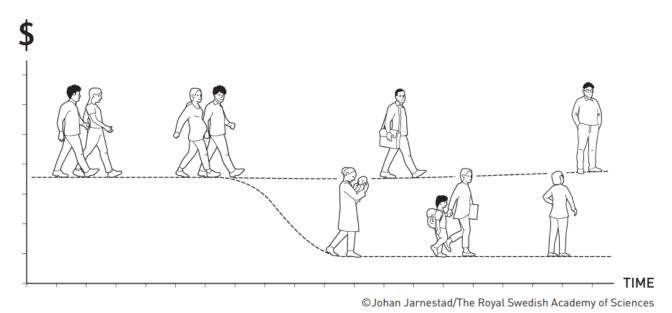
©Johan Jarnestad/The Royal Swedish Academy of Sciences

### "The U-shaped Curve"



©Johan Jarnestad/The Royal Swedish Academy of Sciences

#### "The Parenthood Effect"



### "The Importance of Expectations"



©Johan Jarnestad/The Royal Swedish Academy of Sciences

#### **VI. Summary**

Economists and other social scientists play a key role in understanding individual human behavior and its implications for society. International collaboration in the social sciences is central to the intellectual journeys of influential scholars in the field. Nobel Laureates in economics are no exception and they work with scholars across international borders and draw insights from societies from different parts of the world. U.S. institutions have been the epicenter for excellence in economics and other social science disciplines. As we can learn from the professional activities of the Nobel Laureates in economics, immigrant and foreign economists have enriched economics as a discipline and made significant impacts on socioeconomic policies in the United States and beyond. Among academic economists, women are underrepresented, but their representation is improving slowly over time. This year's Nobel Prize in Economics is a significant milestone for women in the profession as well as for women in general.



PHOTO CREDIT: © Nobel Foundation Archive

#### **About the Authors**

**Sandip K. Sureka** is a PhD in economics and is the Shrivastava Family Postdoctoral Fellow at the Institute for Immigration Research (IIR).

**Kellie S. Wilkerson** is a PhD student in the Department of Sociology at George Mason University and a Graduate Research Assistant at the Institute for Immigration Research (IIR).

#### **Acknowledgements**

The Institute for Immigration Research thanks Dr. Michelle S. Dromgold-Sermen and Professor James Witte for providing valuable feedback, suggestions, editing, and fact checking support. The IIR also thanks Jessica L. Benítez and Maíra Arantes Rodrigues for their research assistance, and Katharine Rupp for providing production assistance on the report.

#### **About the IIR**

The Institute for Immigration Research (IIR) is a multidisciplinary research institute at George Mason University. The IIR's mission is to produce valid, reliable, and objective multidisciplinary research on immigrants and immigration to the United States and to disseminate this information through peer-reviewed academic journals, as well as in print and digital formats that make this research easily accessible to policy-makers, the media, the business community, and the general public.

Our faculty affiliates, graduate students, and partners are at the forefront of immigration research. The IIR produces high quality, timely research and analysis that examines the economic contributions of all immigrants in the United States, with a particular emphasis on immigrant entrepreneurs with high levels of education and skills.

The IIR is a joint venture between George Mason University and The Immigrant Learning Center, Inc. (ILC) of Massachusetts. The IIR was founded in 2012 through the generous donation of Ms. Diane Portnoy, educator and philanthropist from Malden, Massachusetts.

The IIR is located on the campus of George Mason University in Fairfax, Virginia, outside the nation's capital, Washington, DC. Its strategic location allows the IIR to draw on unparalleled academic, government, and private resources to advance its mission in research, education, and professional opportunities for current and future scholars of immigration studies. Through conferences, workshops, lectures, and other events, the IIR is able to engage in community outreach with one of the most diverse populations in the United States.

#### **Endnotes:**

- 1. Nobel Foundation. 2023. "What to Read: Jon Fosse." NobelPrize.Org. Retrieved October 25, 2023. https://www.nobelprize.org/what-to-read-jon-fosse/.
- 2. Nobel Foundation. 2023. "What to Read: Jon Fosse." NobelPrize.Org. Retrieved October 25, 2023. https://www.nobelprize.org/what-to-read-jon-fosse/.
- 3. Nobel Foundation. 2023. "All Prizes in Economic Sciences." NobelPrize.Org. Retrieved October 25, 2023. https://www.nobelprize.org/prizes/lists/all-prizes-in-economic-sciences.
- 4. Nobel Foundation. 2008. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2018." NobelPrize.Org. Retrieved October 25, 2023. https://www.nobelprize.org/prizes/economic-sciences/2018/romer/facts/.
- 5. Nobel Foundation. 2021. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2021." NobelPrize.Org. Retrieved November 13, 2023. https://www.nobelprize.org/prizes/economic-sciences/2021/summary/.
- Nobel Foundation. 2013. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2013." NobelPrize.Org. Retrieved October 25, 2023. https:// www.nobelprize.org/prizes/economic-sciences/2013/press-release/.
- 7. Nobel Foundation. 2023. "Nobel Prize Facts." NobelPrize.Org. Retrieved October 25, 2023. https://www.nobelprize.org/prizes/facts/nobel-prize-facts.
- 8. Nobel Foundation. 2001. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2001." Accessed November 15, 2023. https://www.nobelprize.org/prizes/economic-sciences/2001/akerlof/facts/.
- 9. American Immigration Council. 2018. "The Nobel Prize Winners Show the Power of Welcoming Newcomers." Immigration Impact (blog), October 24, 2018. https://immigrationimpact.com/2018/10/24/nobel-prize-winners-power-welcoming-immigrants/.
- 10. Angrist, Joshua D., and Alan B. Krueger. 1991. "Does Compulsory School Attendance Affect Schooling and Earnings?." *The Quarterly Journal of Economics* 106(4):979–1014. doi: 10.2307/2937954.
- 11. Card, David, and Alan Krueger. 1993. "Minimum Wages and Employment: A Case Study of the Fast Food Industry in New Jersey and Pennsylvania." Cambridge, MA: National Bureau of Economic Research. https://doi.org/10.3386/w4509.
- 12. Card, David. 1990. "The Impact of the Mariel Boatlift on the Miami Labor Market." *Industrial and Labor Relations Review* 43(2):245–57. doi: 10.2307/2523702.

- 13. Wessel, David. 2021. "Who Earned PhDs in Economics in 2020?" Brookings. Accessed October 25, 2023. https://www.brookings.edu/articles/who-earned-phds-in-economics-in-2020/.
- 14. Michael, Boby. 2014. "IMF Lists 25 Brightest Young Economists." *International Business Times UK*. Accessed October 25, 2023. https://www.ibtimes.co.uk/imf-lists-25-brightest-young-economists-1462827.
- 15. The Economist. 2018. "Our Pick of the Decade's Eight Best Young Economists." Accessed October 25, 2023. https://www.economist.com/christmas-specials/2018/12/18/our-pick-of-the-decades-eight-best-young-economists.
- 16. American Economic Association. Accessed October 25, 2023. https://www.aeaweb.org/about-aea/honors-awards/bates-clark.
- 17. Casad, Bettina J., Christina E. Garasky, Taylor R. Jancetic, Anne K. Brown, Jillian E. Franks, and Christopher R. Bach. 2022. "U.S. Women Faculty in the Social Sciences Also Face Gender Inequalities." *Frontiers in Psychology* 13:792756. doi: 10.3389/fpsyg.2022.792756.
- 18. Casad, Bettina J., Christina E. Garasky, Taylor R. Jancetic, Anne K. Brown, Jillian E. Franks, and Christopher R. Bach. 2022. "U.S. Women Faculty in the Social Sciences Also Face Gender Inequalities." *Frontiers in Psychology* 13:792756. doi: 10.3389/fpsyg.2022.792756.
- 19. Lundberg, Shelly, and Jenna Stearns. 2019. "Women in Economics: Stalled Progress." *Journal of Economic Perspectives* 33(1):3–22. doi: 10.1257/jep.33.1.3.
- 20. Farago, Fanni. 2022. "The 2022 Nobel Laureates: International Collaboration & Groundbreaking Knowledge Production."
- 21. Nobel Foundation. 1998. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 1998." NobelPrize.Org. Accessed October 25, 2023. https://www.nobelprize.org/prizes/economic-sciences/1998/sen/biographical/.
- 22. Nobel Foundation. 1998. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 1998." NobelPrize.Org. Accessed October 25, 2023. https://www.nobelprize.org/prizes/economic-sciences/1998/sen/facts/.
- 23. Nobel Foundation. 1998. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 1998." NobelPrize.Org. Accessed October 25, 2023. https://www.nobelprize.org/prizes/economic-sciences/1998/sen/facts/.
- 24. Anon. 2023. "Amartya Sen | Biography, Education, Books, Famine, Nobel Prize, & Facts | Britannica." Accessed October 25, 2023. https://www.britannica.com/biography/Amartya-Sen.

- 25. Anon. 2023. "Amartya Sen | Biography, Education, Books, Famine, Nobel Prize, & Facts | Britannica." Accessed October 25, 2023. https://www.britannica.com/biography/Amartya-Sen.
- 26. Nobel Foundation. 1998. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 1998." NobelPrize.Org. Accessed October 25, 2023. https://www.nobelprize.org/prizes/economic-sciences/1998/sen/facts/.
- 27. Encyclopedia Britannica. 2023. "Amartya Sen | Biography, Education, Books, Famine, Nobel Prize, & Facts | Britannica." Accessed October 25, 2023. https://www.britannica.com/biography/Amartya-Sen.
- 28. Nobel Foundation. 2001. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2001." Accessed November 15, 2023. https://www.nobelprize.org/prizes/economic-sciences/2001/akerlof/facts/.
- 29. Akerlof, George A. 1970. "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism." *The Quarterly Journal of Economics* 84(3): 488-500. https://doi.org/10.2307/1879431.
- 30. Nobel Foundation. 2009. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2009." NobelPrize.Org. Accessed October 25, 2023. https://www.nobelprize.org/prizes/economic-sciences/2009/press-release/.
- 31. Nobel Foundation. 2009. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2009." Accessed October 25, 2023. https://www.nobelprize.org/prizes/economic-sciences/2009/ostrom/facts/.
- 32. Nobel Foundation. 2009. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2009." NobelPrize.Org. Retrieved October 25, 2023. https://www.nobelprize.org/prizes/economic-sciences/2009/press-release/.
- 33. Ostrom Workshop. "Nobel Prize in Economic Sciences." Accessed October 25, 2023. https://ostromworkshop.indiana.edu/about/ostroms-history/nobel-prize/index.html.
- 34. Nobel Foundation. 2009. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2009." Accessed October 27, 2023. https://www.nobelprize.org/prizes/economic-sciences/2009/ostrom/biographical/.
- 35. Nobel Foundation. 2009. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2009." Accessed October 27, 2023. https://www.nobelprize.org/prizes/economic-sciences/2009/ostrom/biographical/.
- 36. Nobel Foundation. 2009. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2009." Accessed October 25, 2023. https://www.nobelprize.org/prizes/economic-sciences/2009/ostrom/facts/.

- 37. Nobel Foundation. 2009. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2009." Accessed October 25, 2023. https://www.nobelprize.org/prizes/economic-sciences/2009/ostrom/facts/.
- 38. Ostrom, Elinor. n.d. "Beyond Markets and States: Polycentric Governance of Complex Economic Systems."
- 39. NobelPrize.org. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2019." Accessed October 26, 2023. https://www.nobelprize.org/prizes/economic-sciences/2019/duflo/biographical/.
- 40. NobelPrize.org. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2019." Accessed October 26, 2023. https://www.nobelprize.org/prizes/economic-sciences/2019/duflo/biographical/.
- 41. The Abdul Latif Jameel Poverty Action Lab (J-PAL). "20 Years of Improving Lives Through Evidence: 20th Anniversary." Accessed October 27, 2023. https://www.povertyactionlab.org/2022/jpal-20th-anniversary.
- 42. Parker, Ian. "The Poverty Lab." The New Yorker, May 10, 2010. https://www.newyorker.com/magazine/2010/05/17/the-poverty-lab.
- 43. The Abdul Latif Jameel Poverty Action Lab (J-PAL). "20 Years of Improving Lives Through Evidence: Policy Engagement." Accessed October 27, 2023. https://www.povertyactionlab.org/2022/informing-policy-practice.
- 44. Adriano, Andreas. "Poverty Fighters: Abhijit Banerjee and Esther Duflo IMF F&D." IMF. Accessed October 26, 2023. https://www.imf.org/en/Publications/fandd/issues/2020/06/MIT-poverty-fighters-abhijit-banerjee-and-esther-duflo.
- 45. Nobel Foundation. 2023. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2023." Accessed October 25, 2023. https://www.nobelprize.org/prizes/economic-sciences/2023/summary/.
- 46. "History Helps Us Understand Gender Differences in the Labour Market." Accessed October 26, 2023. https://www.nobelprize.org/uploads/2023/10/popular-economicsciencesprize2023.pdf.



**Address:** 4400 University Drive, MSN 1D7

Fairfax, VA 22030

Website: iir.gmu.edu

**Phone:** (703) 993-5833

Email: iir@gmu.edu

Twitter: @IIRGMU

