

## **Five of the 2021 Nobel Laureates from the United States are Foreign Born**

**By Fanni Farago, MA and Michele Waslin, PhD  
October 2021**

The Nobel Prize, first awarded in 1901, was established by Alfred Nobel to be given to outstanding individuals who accomplish work “for the greatest benefit to humankind” within their lifetimes. Nobel Prizes are awarded in Chemistry, Economics, Literature, Peace, Physics, and Physiology or Medicine.

The 2021 Nobel Prize winners have been announced, and this year seven of the 13 winners were from the United States, and among them, five of the U.S. winners were not born in the United States. The 2021 foreign-born U.S. Nobel Laureates are:

- David Card, PhD (Economics)
- Guido W. Imbens, PhD (Economics)
- David W.C. MacMillan, PhD (Chemistry)
- Syukuro Manabe, PhD (Physics)
- Ardem Patapoutian, PhD (Physiology/Medicine)

Nobel Laureates are identified by their country of residence and university or research institution with which they were affiliated at the time of the Nobel Prize announcement, not by country of citizenship. Therefore, we categorize a foreign-born<sup>1</sup> individual working at a U.S. university or living in the United States at the time of the award as a foreign-born U.S. winner. The foreign-born U.S. winners may be naturalized U.S. citizens, Legal Permanent Residents, or temporary residents.

Since 2010, there have been 28 foreign-born U.S. winners (Figure 1). The five foreign-born U.S. winners in 2021 is second only to 2016 when there were six.

Since 1901, there have been 947 individuals recognized as Nobel Laureates. Of those, 432, or 46 percent, have been U.S. Nobel Laureates; 284 were native-born U.S. citizens and 148 were foreign born individuals who either immigrated permanently to the United States or were at a U.S. institution of higher learning at the time they received the award. These 148 individuals account for 16 percent of all Nobel Laureates since 1901 (Figure 2). They also constitute 34 percent of all U.S. winners since 1901.

Figure 1: Nobel Laureates 2010-2021

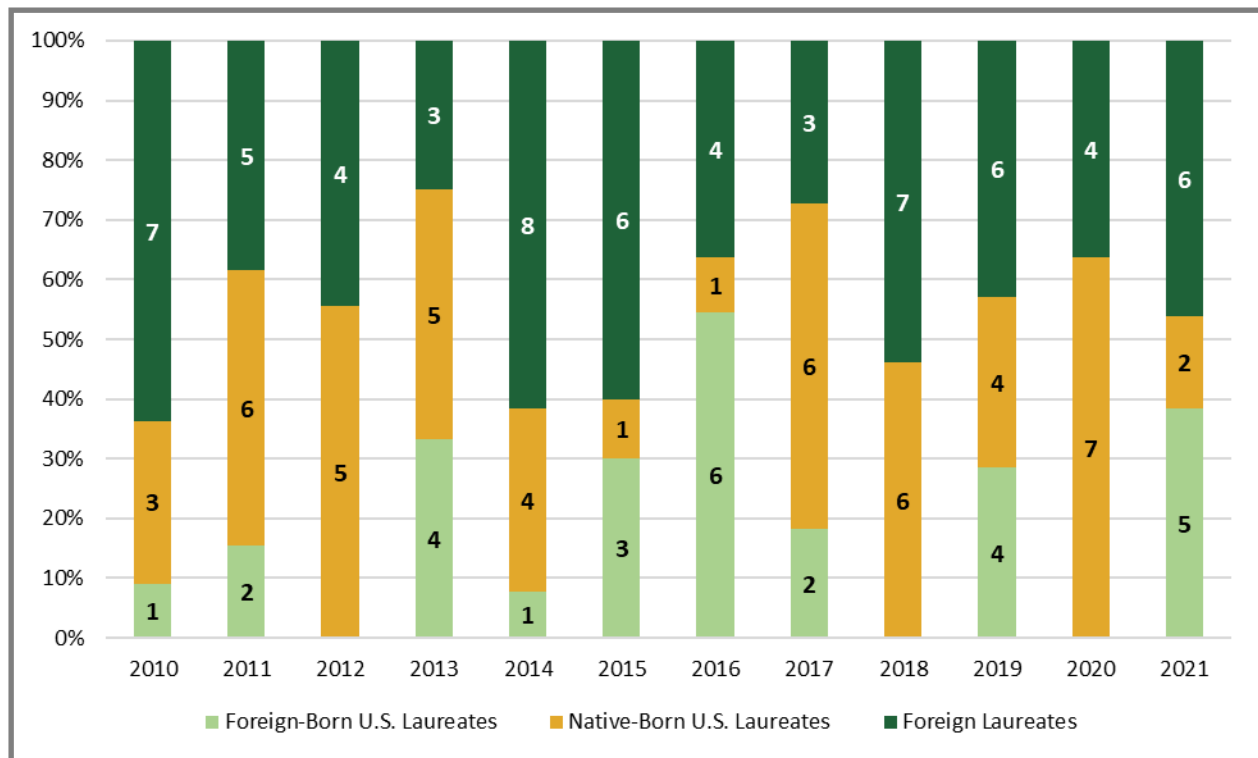
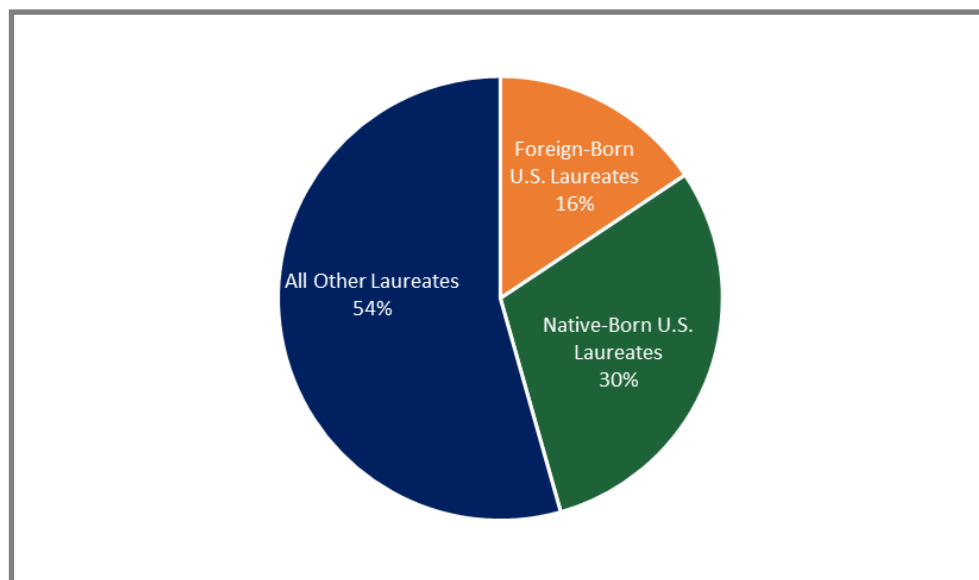


Figure 2: Nobel Laureates 1901-2021



Source: IIR Analysis of all Nobel Prize Winners. <https://www.nobelprize.org/prizes/lists/all-nobel-prizes/>

## The 2021 Foreign-Born U.S. Nobel Laureates and Other Notable Winners

Below are short biographies for each of the 2021 foreign-born U.S. Nobel Laureates. In addition, we profile a foreign 2021 Nobel Laureate, Abdulrazah Gurnah, who escaped Tanzania and resides in Britain. Gurnah was recognized for his work writing about the refugee experience. Finally, we profile the 2021 MacArthur “Genius” Fellows who are either immigrants in the United States or whose work reflects the immigrant experience.

### Chemistry

**David W.C. MacMillan, PhD**, is a Distinguished Professor of Chemistry at Princeton University. Dr. MacMillan was born in 1968 in Bellshill, United Kingdom and completed his undergraduate studies at the University of Glasgow. He immigrated to the United States in 1990 to pursue his PhD at the University of California, Irvine. The 2021 Chemistry Prize was awarded to Drs. Macmillan and Benjamin List, a German chemist affiliated with the Max Planck Institute for Coal Research in Germany. They were awarded for inventing organocatalysis, an innovative tool for constructing molecules. Their research has been impactful on pharmaceutical research and on lessening the impact of chemistry on the environment.<sup>2</sup>



Photo courtesy of  
Princeton University



Photo courtesy of  
Princeton University

### Physics

**Syukuro Manabe, PhD**, is a renowned meteorologist, currently affiliated with Princeton University’s Program in Atmospheric & Oceanic Sciences. Dr. Manabe was born in 1931 in Shingu, Ehime Prefecture, Japan. He immigrated to the United States in 1958 to pursue his career as a meteorologist. He is one of three awardees for the 2021 Prize in Physics, recognized for their essential contributions to understanding the Earth’s climate. Specifically, Dr. Manabe demonstrated “how increased levels of carbon dioxide in the atmosphere lead to increased temperatures on the surface of the Earth.”<sup>3</sup>

## Economic Sciences

Three U.S.-based economists were awarded the 2021 Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel. Two of them, Drs. David Card and Guido W. Imbens, are foreign-born U.S. winners.

**David Card, PhD**, originally from Canada, is a Professor of Economics at the University of California, Berkeley. He was awarded half of the economics prize for his empirical contributions to labor economics. His research discovered new insights of the labor market effects of immigration, education, and minimum wage. Among his research is a 1990 article, "The Impact of the Mariel Boatlift on the Miami Labor Market."<sup>4</sup> Card studied the effect that the large influx of Cuban workers in 1980 had on the Miami labor market. He found that the labor force grew by 7%, with a greater increase in less-skilled occupations and industries. But he found no effect on the wages or unemployment rates of non-Cuban workers nor non-boatlift Cuban workers. There was, in fact, "rapid absorption" of the Mariel immigrants into the Miami workforce.



Photo courtesy of UC Berkeley

**Guido W. Imbens, PhD**, is a Professor of Economics at Stanford University. Born and raised in the Netherlands, Imbens immigrated to the United States to pursue his PhD at Brown University. He received a quarter of the economics prize. He and the third winner, Joshua Angrist, were recognized for their research tools that help economists test big theories.<sup>5</sup>



Photo courtesy of Stanford University

## Physiology/Medicine

**Ardem Patapoutian, PhD**, is a Professor at the Howard Hughes Medical Institute at Scripps Research in La Jolla, California. He was born in Beirut, Lebanon in 1967. He was awarded the 2021 Physiology and Medicine Nobel Prize together with Dr. David Julius of the University of California, San Francisco. They were recognized for discoveries that contribute to our understanding of how the human nervous system responds to heat, cold, and pressure.<sup>6</sup>



Photo courtesy of Scripps Research

## Other Notable Winners

### Literature

**Abdulrazak Gurnah, PhD**, is the 2021 Nobel Laureate in Literature and is a retired professor of English and Postcolonial Literatures at the University of Kent in England. He was born and raised in Tanzania until he fled to England as a refugee in the late 1960s. The Nobel committee recognized him for his "uncompromising and compassionate penetration of the effects of colonialism and the fate of the refugee in the gulf between cultures and continents."<sup>7</sup> He has written 10 novels, many of which focus on the refugee experience. His novels have educated people worldwide about East Africa's cultural diversity, and his characters "find themselves in a hiatus between cultures and continents, between a life that was and a life emerging."<sup>8</sup>



Photo courtesy of Getti Images

## 2021 MacArthur Immigrant Fellows

The MacArthur Fellowship, colloquially known as the “Genius Grant,” is an annual prize awarded by the John D. and Catherine T. MacArthur Foundation to individuals who have demonstrated exceptional creativity and dedication in their professional pursuits.<sup>9</sup> While MacArthur nominees and winners can be from any field, they must be either U.S. residents or citizens.<sup>10</sup> In 2021, three of the 25 MacArthur Fellows, or 12 percent, are immigrants. They are:

- **Daniel Alarcón**, a Writer and Radio Producer, who was born in Lima, Peru. Alarcon chronicles “the social and cultural ties that connect Spanish-speaking communities across the Americas.”<sup>11</sup>
- **Don Mee Choi**, a Poet and Translator who was born in Seoul, South Korea. She was recognized for “bearing witness to the effects of military violence and U.S. imperialism on the civilians of the Korean Peninsula.”
- **Ibrahim I. Cissé**, a Biological Physicist who was born and raised in Niger. Cissé develops “microscopy tools to investigate the subcellular processes underlying genetic regulation and misfunction.”

In addition to these three immigrant MacArthur Fellows, the following 2021 Fellows were rewarded for their work in immigrant communities or for portraying the immigrant experience.

- **Cristina Ibarra**, a Documentary Filmmaker who “craft[s] nuanced and compelling narratives about Latino families living in borderland communities...Her films depict intergenerational life, displacement, labor struggles, and community violence, often from the perspective of Chicana and Latina youth.”
- **Daniel Lind-Ramos**, a Sculptor and Painter known for “transforming everyday objects into assemblages that speak to the global connections inherent in Afro-Caribbean and diaspora legacies.”
- **Monica Muñoz Martinez**, a Public Historian, who “bring[s] to light long-observed cases of racial violence along the U.S.-Mexico border and their reverberations in the present.”
- **Alex Rivera**, a Filmmaker and Media Artist who “explor[es] issues of migration, globalization, and technology with an activist orientation.”





Daniel Alarcón



Don Mee Choi



Ibrahim I. Cissé



Cristina Ibarra



Daniel Lind-Ramos



Monica Muñoz Martinez



Alex Rivera

All Photos Courtesy of the MacArthur Foundation

## Endnotes

<sup>1</sup> Please note that the terms “immigrant” and “foreign-born” are used interchangeably throughout this report. Foreign born refers to individuals who are not a U.S. citizen at birth or who were born outside the U.S., 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. 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.

<sup>2</sup> Nobel Foundation. 2021. “Press release: The Nobel Prize in Chemistry 2021.” Accessed October 12, 2021. (<https://www.nobelprize.org/prizes/chemistry/2021/press-release/> ).

<sup>3</sup> Metz, Cade, Marc Santora and Cora Engelbrecht. 2021. “Nobel Prize in Physics Awarded for Study of Humanity’s Role in Changing Climate,” *The New York Times*. Accessed on October 12, 2021. ([https://www.nytimes.com/2021/10/05/science/nobel-prize-physics-manabe-klaus-parisi.html#:~:text=Prize%20in%20Medicine-,Nobel%20Prize%20in%20Physics%20Awarded%20for%20Study%20of%20Humanity's%20Role,foundation%2CE2%80%9D%20the%20committee%20said](https://www.nytimes.com/2021/10/05/science/nobel-prize-physics-manabe-klaus-parisi.html#:~:text=Prize%20in%20Medicine-,Nobel%20Prize%20in%20Physics%20Awarded%20for%20Study%20of%20Humanity's%20Role,foundation%2CE2%80%9D%20the%20committee%20said).)).

<sup>4</sup> Card, David. 1990. “The Impact of the Mariel Boatlift on the Miami Labor Market,” *Industrial and Labor Relations Review*, 43(2):245-257. Accessed October 13, 2021. ([The Impact of the Mariel Boatlift on the Miami Labor Market on JSTOR](#)).

<sup>5</sup> Nobel Foundation. 2021. “Press Release: Press release: The Prize in Economic Sciences 2021.” Accessed on October 12, 2021. )<https://www.nobelprize.org/prizes/economic-sciences/2021/press-release/> ).

<sup>6</sup> Nobel Foundation. 2021. “Press Release: The Nobel Prize in Physiology or Medicine 2021.” Accessed October 12, 2021. (<https://www.nobelprize.org/prizes/medicine/2021/press-release/> ).

<sup>7</sup> Taylor, Derrick Bryson. 2021. “2021 Nobel Prize Winners: Full List.” *The New York Times*. Accessed on October 12, 2021. (<https://www.nytimes.com/article/nobel-prize-2021.html> ).

<sup>8</sup> BBC 2021. “Nobel Literature Prize 2021: Abdulrazak Gurnah Named Winner.” Accessed October 12, 2021 (<https://www.bbc.com/news/entertainment-arts-58828947> ).

<sup>9</sup> MacArthur Foundation. “Fellows Data: Frequently Asked Questions.” Accessed on October 12, 2021. (<https://www.macfound.org/fellows-faq>).

<sup>10</sup> Ibid.

<sup>11</sup> All biographies are from MacArthur Foundation. Accessed on October 12, 2021. ([www.macfound.org/programs/fellows](http://www.macfound.org/programs/fellows) ).





Institute for  
Immigration Research

Dr. James C. Witte, *Director*  
Dr. Michele Waslin, *Program Coordinator*  
Katharine Rupp, *Office Manager*  
Dhruv Deepak, *Graduate Research Assistant*  
Fanni Farago, MA, *Graduate Research Assistant*  
Merve Ulukaya, *Communications Assistant*  
Amanda Warner, *Graduate Research Assistant*

### **About the Institute for Immigration Research**

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 research examining the economic contributions of all immigrant in the United States. The IIR produces high quality, timely research and analysis intended to promote informed action.

The IIR was founded in 2012 through the generous donation of Ms. Diane Portnoy and is a joint venture with The Immigrant Learning Center, Inc. of 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.