National Foundation for American Policy

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New Research: Three of the Six U.S. Nobel Prize Winners in Science Categories in 2025 Were Immigrants

Immigrants Have Been Awarded 40% of U.S. Nobel Prizes in Chemistry, Medicine and Physics Since 2000

Arlington, Va. – Immigrants have been awarded 40% of the Nobel Prizes won by Americans in chemistry, medicine and physics since 2000, according to an analysis by the National Foundation for American Policy (NFAP). In 2025, three of the six U.S. winners in the three Nobel Prize science categories were immigrants to the United States. In 2025, the only U.S. winner of the Nobel Prize in chemistry was an immigrant, and two of the three U.S. recipients of the Nobel Prize in physics were immigrants. In 2023, four of the six U.S. recipients of Nobel Prizes in medicine, chemistry and physics were immigrants to the United States. In 2021, three of the four U.S. recipients of Nobel Prizes in medicine, chemistry and physics were immigrants to America. Between 1901 and 2025, immigrants have been awarded 36% of the Nobel Prizes won by Americans in chemistry, medicine and physics. The National Foundation for American Policy is a nonpartisan public policy research organization based in Arlington, Virginia.

The study "Immigrants and Nobel Prizes: 1901-2025," can be found at https://nfap.com/.

Table 1
U.S. Nobel Prize Winners in Chemistry, Medicine and Physics: 2000-2025

Category	Immigrant	Native-Born	Percentage of Immigrant Winners
Physics	19	23	45%
Chemistry	17	23	43%
Medicine	12	26	32%
TOTAL	48	72	40%

Source: National Foundation for American Policy, Royal Swedish Academy of Sciences, George Mason University Institute for Immigration Research.

Omar M. Yaghi, who won the 2025 Nobel Prize in chemistry, has a remarkable immigrant journey. He was born into a refugee family in Jordan. At his father's urging, he obtained a visa to study in the United States while a teenager, arriving in America alone with limited English proficiency. Living in Troy, New York, he initially attended a community college and later graduated with a B.S. in chemistry from the State University of New York at Albany. He went on to earn a Ph.D. at the University of Illinois at Urbana-Champaign and held a series of faculty positions at Arizona State University, the University of Michigan, and UCLA in 2007, before joining the chemistry faculty at UC Berkeley.

Yaghi received the Nobel Prize "for the development of metal-organic frameworks," sharing the award with Susumu Kitagawa of Japan and Richard Robson of Australia. "The Nobel Prize laureates in chemistry 2025 have created molecular constructions with large spaces through which

gases and other chemicals can flow," according to the Royal Swedish Academy of Sciences. "These constructions, *metal–organic frameworks*, can be used to harvest water from desert air, capture carbon dioxide, store toxic gases or catalyse chemical reactions."

"I was born in a family of refugees, and my parents barely could read or write," he said in an interview with the Royal Swedish Academy of Sciences. "It is quite a journey, and science allows you to do it. Science is a great equalizing force in the world." He said, "Smart people, talented people, skilled people, exist everywhere. That's why we really should focus on unleashing their potential through providing them with opportunity."

In 2025, Michel H. Devoret, an immigrant from France, and John Clarke, an immigrant from the United Kingdom, shared the Nobel Prize for physics with John M. Martinis, who was born in the United States. The three men shared the prize "for the discovery of macroscopic quantum mechanical tunnelling and energy quantisation in an electric circuit." Devoret's affiliation at the time of the award was as a professor at Yale University and the University of California, Santa Barbara. Clarke's affiliation was as a professor at the University of California, Berkeley. Although no immigrants to the United States won the 2025 Nobel Prize in physiology or medicine, Shimon Sakaguchi was an assistant professor at Scripps Research in California from 1989 to 1991 before returning to Japan. Mary E. Brunkow and Fred Ramsdell, both born in America, shared the 2025 Nobel Prize in physiology or medicine with Sakaguchi.

Among the findings of this report:

- Since 1901, immigrants have been awarded 38% of the U.S. Nobel Prizes in physics, 38% in chemistry and 33% in medicine.
- Immigration laws matter, particularly in determining whether the United States gains from increased globalization and rising educational achievement in the world. The Immigration and Nationality Act of 1965 eliminated the discriminatory national origin quotas and opened the door to Asian immigrants, while the Immigration Act of 1990 increased employment-based green card numbers. Those two pieces of legislation have been essential factors in attracting international students to the country and enhancing America's ability to assimilate talented individuals into its culture and economy.
- The rise in immigrant Nobel Prize winners reflects an overall increase in the reputation and capability of American institutions and researchers post-1960, and a greater openness to immigration has helped make the United States the leading global destination for research in many different science and technology fields, including computer and information sciences, cancer research and others.
- One can see the increasing influence and importance of immigrants on science in America reflected in Nobel Prize winners. Between 1901 and 1959, immigrants won 22 Nobel Prizes in chemistry, medicine and physics, but won 96 prizes in these fields *more than four times as many* between 1960 and 2025.
- The pre-1960 immigrant (and U.S.) Nobel Prize total would have been lower if not for the many Jewish scientists who overcame significant restrictions against immigration in the 1930s and fled to the United States to escape European fascism.
- Since 2000, immigrants have been awarded 45% of the U.S. Nobel Prizes in physics, 43% in chemistry and 32% in medicine.

In 2024, three immigrants to America won the Nobel Prize in economics. "This year's laureates in the economic sciences—Daron Acemoglu, Simon Johnson and James Robinson—have demonstrated the importance of societal institutions for a country's prosperity," according to the

Royal Swedish Academy of Sciences <u>press release</u> issued for the 2024 Nobel Prize in economics. Acemoglu immigrated from Turkey, and Johnson and Robinson immigrated from the United Kingdom. Immigrants also have been awarded 31% of the Nobel Prizes won by Americans in economics, including 28% since 2000, according to a National Foundation for American Policy analysis. (Economics awards through 2024.)

In 2023, Katalin Karikó, an immigrant from Hungary, and Drew Weissman shared the Nobel Prize in physiology or medicine "for their discoveries concerning nucleoside base modifications that enabled the development of effective mRNA vaccines against COVID-19." Karikó and Weissman are affiliated with the University of Pennsylvania. Karikó solved the problem plaguing mRNA: the body fought the new chemical after an injection. "While mRNA is best known for Covid vaccines, the technology's greatest promise may be in treating cancer and other diseases," according to the *Wall Street Journal*. In 2023, Pierre Agostini, an immigrant to the United States from France and a professor at Ohio State, shared the Nobel Prize in physics with two French scientists "for experimental methods that generate attosecond pulses of light for the study of electron dynamics in matter." In 2023, immigrants Moungi G. Bawendi (born in France) and Alexei I. Ekimov (born in the former USSR) shared the Nobel Prize in chemistry with Louis E. Brus (born in the U.S.) "for the discovery and synthesis of quantum dots." The scientists are credited with planting the seeds for nanotechnology.

The achievements of immigrants, in the form of Nobel Prizes, successful businesses, and contributions in other fields, are a testament to the American Dream. Being open to immigration has enabled America to attract talented and ambitious individuals and to benefit from their scientific and technological innovations.

About the National Foundation for American Policy

Established in 2003, the National Foundation for American Policy (NFAP) is a 501(c)(3) nonprofit, nonpartisan public policy research organization based in Arlington, Virginia focusing on trade, immigration and related issues. The Advisory Board members include Columbia University economist Jagdish Bhagwati, Ohio University economist Richard Vedder, Cornell Law School professor Stephen W. Yale-Loehr and former INS Commissioner James W. Ziglar. Over the past 24 months, NFAP's research has been written about in the *Wall Street Journal*, the *New York Times*, the *Washington Post* and other major media outlets. The organization's reports can be found at www.nfap.com. X.com: @NFAPResearch

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