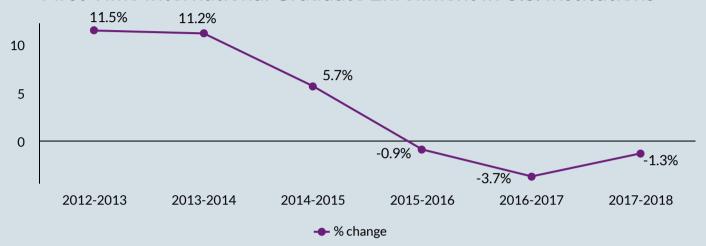


# International Graduate Students: Innovators, Researchers, and Entrepreneurs Policy B

**Policy Brief**June 2020

The strength of our nation's graduate education enterprise depends upon both domestic and international scholarship. International students bring a rich array of ideas and experiences that promote diversity within today's graduate student population and tomorrow's workforce. U.S. domestic and international students who learn and interact with their peers foster cross-cultural understanding and diplomacy, which are necessary for our increasingly globalized economy. For U.S. graduate education to remain the gold standard, policies should support the ability for American institutions to attract top international talent as well as allow graduates to apply their education and training as part of the U.S. workforce.

#### First-Time International Graduate Enrollment In U.S. Institutions\*



According to data from the Council of Graduate Schools (CGS), there were over 271,000 international students pursuing master's and doctoral education at CGS member institutions and regional affiliates. Between Fall 2018 and Fall 2019, the total number of international graduate applications received by U.S. degree-granting institutions increased by 3%, and first-time graduate enrollment increased by 4%.[1] These increases follow a two-year consecutive dip in both applications (-3% and -4%) and first-time enrollment (-1% and -1%) for Fall 2017 and Fall 2018, respectively.[2], [3]

Between Fall 2018 and Fall 2019, the number of first-time enrolled Chinese national students at a U.S. institution increased by 3%. During the same timeframe, the number of first-time enrolled Indian national students increased by 1%. These two countries contribute the largest share of international graduate students enrolled at U.S. institutions.[1]

### **Economic Impact and Innovation**







According to NAFSA, in Academic Year 2018-2019, undergraduate and graduate international students contributed \$41 billion to the economy and supported over 458,290 jobs.[4]







- Since 2000, immigrants have won 39% of the Nobel Prizes received by Americans in Chemistry, Medicine and Physics.
- In 2016, all 6 American winners of the Nobel Prize in economics and scientific fields were immigrants.
- In 2017, the sole American winner of the Nobel Prize in Chemistry was an immigrant.[5]







Immigrants generate a significant portion (28%) of high-quality patents. Presence of foreign-born graduate students can also have positive impacts on innovation and patenting by native-born students.[6]

Opportunities that allow international students to gain experience and employment in their field of study, such as the Optional Practical Training program, provide valuable enrichment and immersion in the U.S. workforce. Extending dual intent so that these highly-educated and trained individuals can become employed long-term is one solution to strengthening the U.S. economy and its global competitiveness.

## International Graduate Students: Making an Impact

#### Making Cloud Computing More Efficient, Reliable, and Secure

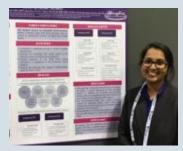
You might call him a painter. His work does require a tremendous amount of creativity, and Masoud Moshref Javadi has been known to write on the walls to work out problems. But, his artistic endeavors involve computer networks, data traffic, and operating systems. Masoud, a PhD recipient in Computer Engineering from the University of Southern California, developed a network management system called DREAM (Dynamic Resource Allocation for Software-defined Measurement), which makes the future of cloud computing more efficient, reliable, and secure. In 2015, he was one of only 15 PhD students across the U.S. awarded the prestigious Google PhD Fellowship, a two-year award created in 2009 to recognize and support outstanding graduate students doing exceptional work in computer sciences and related disciplines.



Masoud Moshref Javadi, PhD University of Southern California

#### Improving Women's Access to Pre-Natal Healthcare & Maternal Support

As a graduate student at Wayne State University, Jisha Panicker worked as an intern with the Henry Ford Health System's Women Inspired Neighborhood (WIN) Network: Detroit to improve women's access to pre-natal healthcare and maternal support. Her local engagement produced award-winning research with direct impact on Detroit's health services and the lives of women and families. In Fall 2016, Jisha received the Public Health Education and Health Promotion Student Award from the American Public Health Association. Her project sought to address the high infant mortality rate in Detroit despite its strong healthcare systems by creating a consortium of healthcare professionals in an enhanced group prenatal care (GPC) model.



Jisha Panicker, BDS, MPH Wayne State University

#### Providing Clean Drinking Water and an Education to Rural Communities in Sub-Saharan Africa

Prosper Zongo, a recent master's degree recipient in political science and international relations from the University of South Dakota, came to the U.S. from Burkina Faso on a Fulbright scholarship. He established the Prosper Zongo Foundation, an accredited non-profit organization in 2017 with the aim of providing clean drinking water to rural communities and accessible education to every child in Sub-Saharan Africa. Providing cleaner water to poor, rural communities has been a dream of Prosper's since childhood, when he remembers his mother walking several miles each day in order to provide the family with clean drinking water. The Foundation has built two wells in Burkina Faso and has plans to build more. Zongo intends to work for a year or two before returning to school to earn a doctorate in political science with a focus on the African continent.



Prosper Zongo, MA University of South Dakota

#### Learn how international graduate students are making a difference by visiting the CGS GradImpact Gallery: https://cgsnet.org/gradimpact-submissions/gallery

#### Sources:

- \*Council of Graduate Schools. Data points from Graduate Enrollment and Degrees reports, 2012-2018.
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- [2] Okahana, H., & Zhou, E.(2018). International graduate applications and enrollment: Fall 2017. Washington, DC: Council of Graduate Schools.
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- [4] NAFSA: Association of International Educators. (n.d.). NAFSA international student economic value tool. Retrieved from:
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