The National Academies of
SCIENCES • ENGINEERING • MEDICINE

May 16, 2018

Honorable Carl C. Risch
Assistant Secretary
Bureau of Consular Affairs
Department of State
2201 C Street, NW
Washington, DC 20520

EMAIL: PRA_BurdenComments@state.gov

Dear Assistant Secretary Risch,

As the presidents of the National Academies of Sciences, Engineering, and Medicine, we wish to express our strong concern about the **Notice of Proposed Information Collection: Application for Immigrant Visa and Alien Registration** (Form DS-260, OMB Control Number 1405-0185) and the **Notice of Proposed Information Collection: Application for Nonimmigrant Visa** (Form DS-160 and DS-156, OMB Control Number 1405-0182), published in the *Federal Register* on March 30, 2018. If approved, the proposed collection of social media information would greatly expand the group of applicants for which similar collection was implemented last year. We continue to be concerned that these changes will further discourage scientists, engineers, physician-scientists, and students from other countries from pursuing research and education in the United States. These collaborations and exchanges are crucial to U.S. science, technology, and innovation, and to U.S. international leadership.

The United States has long benefited from the inflow of talented, foreign-born scientists and engineers, and physicians. Science, engineering, technology, mathematics, and medicine (STEMM) skills are critical contributors to national security, economic growth and prosperity, public health and an increasing standard of living for Americans. For example, the Council of Economic Advisors to the President of the United States reported that fifty percent of the growth in the U. S. economy since World War II resulted from scientific, engineering and medical research and innovation. Many countries, including our own, have specific policies to attract international talent in these crucial areas for our national development. Since 2000 alone, immigrants have received 39% of the Nobel Prizes won by Americans in Chemistry, Medicine and Physics. In 2016, all six American winners of the Nobel Prize in economics and scientific fields were immigrants. In addition, 25% of the members of the National Academy of Sciences, the National Academy of Engineering, and the National Academy of Medicine were born outside of the United States and emigrated as students or adults to the United States where they became American citizens.

The impact of this proposed collection is not limited to top scientists, engineers and physicians. The National Science Foundation's *Science and Engineering Indicators 2018*[1] report notes that, "In 2015, foreign-born individuals accounted for 29% to 30% of college-educated workers employed in science and engineering (S&E) occupations in the United States, which is higher than their representation in both the overall population (13%) and among all college graduates (17%)." For most American S&E positions, the higher the degree level, the greater the proportion of the workers who are foreign-born. For S&E occupations involving doctoral level degrees, over 45% of the workers were foreign-born in every S&E field except the social sciences.[2]

For many years, the United States has welcomed international students. Over one million international students currently study in this country[3]; 61.7% of these foreign graduate students are in STEM disciplines, as are 36.1 % of the foreign undergraduate students. These students influence not only the intellectual vitality of our nation's colleges and universities, but they contribute $39.4 billion annually to the U.S. economy. Many also become part of the pipeline of highly skilled, foreign-born STEM workers in the United States.

However, because of recent visa policy changes in the United States and increased opportunities in other countries, worrisome trends have appeared. Results from a fall 2017 survey conducted by the Council of Graduate Schools showed that both international graduate student applications and first time enrollment at U.S. institutions declined 3% and 1% respectively compared to fall 2016.[4] Those from Indian students declined by 15% and 13% respectively. India is the second largest sending country.

Science and technology is now a global enterprise, and research and educational opportunities are not limited to the United States. Scientific and technological innovation is also closely linked to economic success, so attracting these individuals to the United States enhances our national security and prosperity. Government policies promoting these opportunities play a key role in encouraging innovation.

Hosting and conducting scientific meetings in the United States for the world's top scientific talent also increases our intellectual leadership and our economic and national security. Current research collaborations are strengthened, and new ones are proposed. If administrative hurdles become too high in this country, potential research partners will take their talent and ideas elsewhere, creating a double loss for the United States. This is already occurring. The National Academy of Sciences serves as the U.S. adhering organization for approximately two dozen international scientific organizations. Representatives of our committees periodically present bids to the international bodies to hold their meetings in the United States. These meetings are generally three to six years in the future, so current policies have long-term impact. In 2017, our U.S. National Committee for Crystallography lost a bid to host the 2023 General Assembly of the International Union of Crystallography in San Diego, CA. Delegates from other countries specifically cited U.S. visa policy concerns as an influencing factor in their decision. Since this was well before the State Department announced its current proposed change, we have

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[1] National Science Board. 2018. *Science and Engineering Indicators 2018.* NSB-2018-1. Alexandria, VA: National Science Foundation. Science and Engineering Indicators 2018. Available at https://www/nf/gov/statistics/indicators/.

[2] Ibid.

[3] Institute of International Education, *2017 Open Doors Report*, "Enrollment," November 13, 2017, available at https://www.iie.org/Research-and-Insights/Open-Doors/Data/International-Students/Enrollment.

[4] Okahana, H., & Zhou, E. (2018). International graduate applications and enrollment: Fall 2017. Washington, DC: Council of Graduate Schools. Available at http://cgsnet.org/ckfinder/userfiles/files/Intl_Survey_Report_Fall2017.pdf.

solid grounds to fear a further decline in interest in research and academic exchanges and partnerships with the United States.

Combined with policies and procedures implemented in 2017, the clear message being sent to the world is that the United States no longer welcomes the world's most highly educated people to make a life in and contribute to our country. The extreme vetting of over 14 million nonimmigrants a year will require millions of hours of processing time and will potentially cause long delays that further frustrate and/or turn away the very individuals that we want and need to attract.

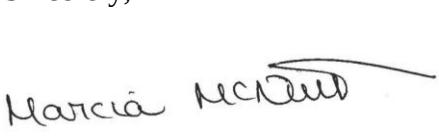
To be sure, ensuring the safety of our nation's citizens is of primary importance, but so is the need to lead our nation responsibly into the increasingly globalized future where our economic competitiveness, improved health, and national security rests on the following principles:

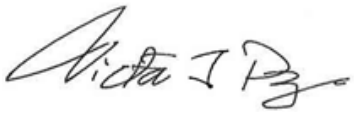
- The United States must sustain and strengthen its traditional commitment to long-term basic research that has been proven to create the flow of new ideas that fuel societal progress.[5]
- The United States must offer the most compelling and supportive setting to study and undertake research so that we can develop, recruit, and retain the best and brightest students, scientists, engineers, and health professionals from within the United States and throughout the world.[6]
- The United States must maintain its ability to draw the most capable and entrepreneurial people from throughout the globe, which depends on welcoming visa policies for legitimate and qualified students and researchers.[7]

The U.S. benefits tremendously from the flow of foreign-born scientists, engineers, physician-scientists and students, but admittedly problems can occur. What is needed is a judicious approach and a nuanced policy built on evidence-based recommendations. The National Academies of Science, Engineering, and Medicine strongly encourages you to modify your proposed practices, and stands ready to assist in this conversation.

Thank you for your consideration of these concerns.

Sincerely,





Marcia McNutt, President	C. D. Mote, Jr., President	Victor J. Dzau, President
National Academy of Sciences	National Academy of Engineering	National Academy of Medicine

[5] Committee on Prospering in the Global Economy of the 21st Century (U.S.), & Committee on Science, Engineering, and Public Policy (U.S.). 2007. *Rising Above the Gathering Storm: Energizing and employing America for a brighter economic future.* Washington, D.C.: National Academies Press.

[6] Ibid.

[7] Committee on Science, Security, and Prosperity (U.S.) & Committee on Scientific Communication and National Security (U.S.). 2009. *Beyond "Fortress America": National Security Controls on Science and Technology in a Globalized World.* Washington, D.C.: National Academies Press.