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## **International Postdoctoral Researchers and Their Importance to the Advancement of U.S. Science, Technology and National Security**

### **EXECUTIVE SUMMARY**

According to the National Academies of Science, postdoctoral researchers “account for a great deal of the extraordinary productivity of the U.S. academic science and engineering enterprise.” Recent estimates indicate more than half of all the postdocs currently conducting research in the U.S. are from other countries.<sup>1</sup> William Wulf, while serving as President of the National Academy of Engineering, commented before a subcommittee of the U.S. House of Representatives that “Foreign-born scientists and engineers have come to the U.S., stayed in large numbers, and we are more prosperous and more secure, in a large part, because of them!”<sup>2</sup>

The National Postdoctoral Association (NPA) is a professional association founded in 2003 whose mission is to advance the U.S. research enterprise by enhancing the quality of the postdoctoral experience, thereby maximizing the effectiveness of the research community. It welcomes continuing dialogue and feedback with regard to the best policies needed to maintain the extraordinary productivity of the U.S. academic science and engineering enterprise. In this spirit, the NPA offers the following recommendations for improvements in U.S. law and visa regulations to ensure continued access to international talent:

- a) Eliminate the “intent to return” requirement currently attached to J-1 non-immigrant visas;
- b) Facilitate the ease of obtaining a new visa in the same category as the previous visa for International Postdoctoral Researchers if they travel to their home country;
- c) Raise the cap on H1-B visas for International Postdoctoral Researchers who have U.S. and/or foreign advanced degrees;
- d) Enhance enforcement of Department of Labor laws regarding prevailing wages as required by the H-1B non-immigrant classification;
- e) Allow spouses of International Postdoctoral Researchers to work in the U.S.;
- f) Establish a new non-immigrant classification specifically for non-immigrant International Postdoctoral Research Scholars.

The National Postdoctoral Association asks Congress and the leaders of federal agencies --charged with administering and enforcing the nation’s immigration laws-- to consider these recommendations.

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<sup>1</sup>Davis, G. 2005. Doctors without orders. *American Scientist* 93(3, supplement). <http://postdoc.sigmaxi.org/results/>

<sup>2</sup>William A. Wulf, Ph.D., Statement before the Subcommittee on Immigration, Border Security, and Claims Committee on the Judiciary U.S. House of Representatives, *The Importance of Foreign-born Scientists and Engineers to the Security of The United States*, September 15, 2005.

Together, all stakeholders can develop effective policy solutions that address the recruitment and retention of the world's best and brightest research workforce.

## **BACKGROUND**

For decades, the U.S. has attracted the best and the brightest in all research fields. The large academic network and the many scientific initiatives enticed International Postdoctoral Researchers to come to the U.S. This has allowed the U.S. to remain a world leader in the advancement and innovation of science and technology.

Postdoctoral Researchers are highly educated, highly motivated, trained professionals, who are focused on the advancement of science and engineering. International Postdoctoral Researchers demonstrate this motivation by their willingness to relocate to a foreign country. Thomas A. Stewart, editor of Fortune magazine writes that "In this new era, wealth is the product of knowledge."<sup>3</sup> Scientific and technologic knowledge is a considerable part of this wealth.

Unfortunately, but understandably, the tragic events of 09/11 affected the way the U.S. handled the open exchange of foreign-born talent and the visa process substantially slowed down. Fortunately, the Department of State has made significant efforts to streamline and improve the process. The NPA understands that a balance is needed between immigration policy that can address national security concerns as well as allow the U.S. to remain a world leader in scientific and technological advancements.

### **RECOMMENDED POLICY CHANGES FOR INTERNATIONAL POSTDOCTORAL RESEARCHERS IN THE CONTEXT OF COMPREHENSIVE IMMIGRATION REFORM**

The NPA makes the following suggestions for change to current immigration law and federal immigration practice so that reform will facilitate the recruitment and retention of International Postdoctoral Researchers.

## **SHORT-TERM POLICY RECOMMENDATIONS**

### ***a) Eliminate the "intent to return" requirement***

From an immigration standpoint, International Postdoctoral Researchers are subject to the same provisions as any other J non-immigrant: obtain a sponsor; apply for the visa; provide proof of an "intent to return;" arrive in the U.S; and, depart when the program is completed. The NPA supports all of the above conditions except for the "intent to return" requirement found under the Immigration and Nationality Act (INA) 214(b). Establishing an "intent to return" to their country of origin is particularly difficult for young International Postdoctoral Researchers who are more likely to be unmarried with little property or other assets. By eliminating the requirement under INA 214(b), Congress would facilitate a "dual intent" environment which would greatly increase the nation's capacity to attract and retain the best and brightest. This provision would also allow International Postdoctoral Researchers the flexibility to focus on a career in the U.S., which in turn would lead to more U.S. generated discoveries, patents, medicines, and technological advancements.

### ***b) Facilitate the ease of obtaining a new visa in the same category as the previous visa for International Postdoctoral Researchers if they travel to their home country***

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<sup>3</sup> Thomas A. Stewart, Intellectual Capital: The New Wealth of Organizations, 1997.

The National Postdoctoral Association appreciates the steps taken by the U.S. government to address the issues raised in various reports on the mobility of foreign scientific and technological talent.<sup>4</sup> However, to retain and recruit the best talent, more must be done.

Most International Postdoctoral Researchers leave their family and friends to come to the U.S. to take part in the world's leading research. Unfortunately, once they have arrived, many fear leaving the U.S., because of concern about the time and procedural burdens involved in securing visas to return to the U.S. Although most International Postdoctoral Researchers must undergo a security clearance to get an initial visa, sometimes months must be spent waiting for the same clearance when they apply for another visa in the same category. This unknown and potentially extensive waiting period creates a unique burden on both the U.S. research enterprise and the International Postdoctoral Researcher who is eager to resume working. As a result, many remain in the U.S and sacrifice travel to international scientific conferences, international collaborations, and visits to their families.

*c) Increase the H-1B Visa Cap*

Although most International Postdoctoral Researchers conduct research in academic institutions that are not subject to the cap on H1-B visas, the presence of a strict cap in industry harms both postdocs and the U.S. private research enterprise. This situation occurs because the cap hinders transfer of technology and skills between the two. Because most employers in private industry do not qualify for the H-1B cap exemption, the International Postdoc cannot seek employment with that employer. Furthermore, absent the ability to transfer to other academic institutes, many International Postdoctoral Researchers must return home, which hinders the U.S. from retaining the knowledge that could be utilized for further intellectual and technological advancement.

The NPA supports initiatives currently introduced in the 110<sup>th</sup> Congress of the U.S.; Senate Bill S.1083, "*Securing Knowledge, Innovation and Leadership (SKIL)*" and House Bill H.R.1645, "*Security Through Regularized Immigration and a Vibrant Economy (STRIVE ACT)*." Both bills would raise the H-1B caps for persons with bachelor's degrees, for persons with advanced degrees from accredited U.S. institutes of higher education, and for persons with advanced degrees from foreign institutes that are deemed equivalent to a U.S. advanced degree.

*d) Enhance enforcement of prevailing wage laws*

*The Sigma Xi Research Society's Postdoc Survey* discovered that International Postdoctoral Researchers earn on average approximately \$2,000 less than their U.S. citizen counterparts, even after controlling for institution, field of research and funding mechanism.<sup>5</sup> The U.S. Department of Labor should allocate sufficient resources to enforce existing prevailing wage laws and work to educate employers as to existing requirements. This would discourage economic discrimination against International Postdoctoral Researchers, and also prevent institutions from hiring International Postdoctoral Researchers instead of U.S. citizens in order to save money.

*e) Allow employment by the spouse:*

Currently, the spouse of an H-1B visa-holder cannot work in the U.S. This is a major factor in determining whether or not an International Postdoctoral Researcher will remain home or come to the U.S. Allowing spouses to partake in paid employment for any purpose would better suit the needs of two-career couples. Further, it would add to the attractiveness of conducting research in the U.S. It should be noted that although a spouse of a J non-immigrant can currently be employed with authorization from the Department of Homeland Security (DHS), regulations restrict approval only to

<sup>4</sup> United States Government Accountability Office: Global Competitiveness: Implications for the Nation's Higher Education System. <http://www.gao.gov/new.items/d07135sp.pdf>. January 2007.

<sup>5</sup> Davis, G. 2005. Doctors without orders. *American Scientist* 93(3, supplement). <http://postdoc.sigmaxi.org/results/>

employment earnings that will be above and beyond general family support. Not only should DHS take a look at amending its current regulations for J spouses, but Congress should also address employment authorization for spouses of H-1B visa holders.

*f) Establish a new non-immigrant classification:*

There are many ways to enhance the current visa policies for J and H non-immigrants. With some significant changes to current policy both visa categories could be enhanced to encompass the truly unique work that International Postdoctoral Researchers do for U.S. science and Technology and the unique relationship between research institutes and the International Postdoctoral Researchers. However, every time employers hire an International Postdoctoral Researcher, they face the dilemma of choosing between the J and H programs. Either category has pros and cons, but neither really encompasses the unique situation of International Postdoctoral Researchers.

The NPA believes the only way to truly capture the unique contributions that these individuals make to the U.S. research enterprise is to establish a new non-immigrant classification for International Postdoctoral Researchers. The NPA makes the following long-term policy recommendations as a first step for creating this category. Understanding that these recommendations are the first step, the NPA is committed to working with the leaders of the federal government to achieve this goal.

## **LONG-TERM POLICY RECOMMENDATIONS FOR A NEW NON-IMMIGRANT CLASSIFICATION**

Department of Homeland Security Non-immigrant Classification:

- Allow dual intent
- Five year validity
- Subject to prevailing wage
- Salary does not have to be from employer (i.e. Grants, Fellowships, etc.)
- Spouse could be employed
- Easily transferable to other institutions
- Sixty-day grace period to depart the U.S., find another job, etc.
- Consulting authorized as form of employment

Department of State corresponding Visa:

- Issued for full five years (understand reciprocity comes into play)
- Allow unlimited entries within validity of visa
- If applicable, security clearances processed in two months or less
- Security clearance valid for five years (matching DHS validity)

*Rationale:* International Postdoctoral Researchers contribute to the advancement of science by lending their expertise to research projects, to developing patentable technologies, and to developing societal-relevant products. A visa that is easily transferable and not subject to caps would not only facilitate mobility among different academic establishments, but also between academia and industry-- therefore facilitating the transfer of technology and skills and potentially the speed at which technologies are brought to market.

This provision would also promote collaborations that are now currently hampered because of the link between the visa and a particular research institution. Allowing for consulting activity would maximize

the use of the International Postdoctoral Researchers competences and in turn would maximize the benefits for the U.S.

The creation of an International Postdoctoral Research Scholar Nonimmigrant Classification under the Department of Homeland Security would:

- a) foster research and development;
- b) track appropriately specific areas of research;
- c) collect fees for the appropriate background controls; and,
- d) show that the U.S. is committed to retaining its place as a world leader in the scientific and technological arena by maintaining an attractive environment for research.

## CONCLUSION

U.S. universities and research institutions attract highly talented and motivated International Postdoctoral Researchers who have invested many years of their lives in higher education. In response, the NPA has made it a goal to enhance the lives of these foreign nationals who provide immense scientific benefits to the U.S.

National security remains a high priority as a result of the war on terrorism. Catheryn Cotton, Director of the International Office at Duke University summed it up best: "Our real security, our future, our success... depends on all those who, if allowed to enter our universities and research facilities and to travel freely, will spread the message of democracy, not in speeches and political tracts, but in being what America lets them be, in showing others the confidence and success that comes from the American experience, in contributing their knowledge, their skills, and their understanding of America to the world."<sup>6</sup>

International Postdoctoral Researchers represent 50-72% of the pool of postdoctoral researchers in the U.S and produce more peer-reviewed publications than U.S. Postdoctoral Researchers.<sup>7</sup> This robust research productivity is at stake and could be lost, unless an outdated legislative framework is remedied. It is critical that our leaders in Congress recognize the importance of this unique set of individuals and work to create legislation that encourages the best and brightest to continue to come to the U.S. The NPA is committed to working with the leaders of the federal government to achieve this goal.

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<sup>6</sup> Catheryn Cotton, Written Testimony before the Senate Foreign Relations Committee, *Addressing the New Reality of Current Visa Policy on International Students and Researchers*, October 6, 2004.

<sup>7</sup> Davis, G. 2005. Doctors without orders. *American Scientist* 93(3, supplement). <http://postdoc.sigmaxi.org/results/>