

## GEOPOLITICS OF KNOWLEDGE SECURITY

# Who Fills the Void When the United States Turns Away from Global Science?

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The United States is surrendering its advantage in global science, not through defeat but deliberate withdrawal. As visa revocations mount and research budgets collapse, international talent is fleeing. This self-inflicted isolationism creates a vacuum precisely when global collaboration on climate, pandemics, and artificial intelligence is most critical. The question is not whether the world will adapt, but how quickly—and at what cost.

The global geopolitical and science landscape is undergoing its most profound transformation since the Cold War. This is not a simplistic narrative of US scientific withdrawal from the world stage, but rather a strategic recalibration of its global presence—one so unfamiliar that it appears irrational to many observers. What we are witnessing is a mixture of increasing global competition in science, decisions by previous administrations, and an accelerated series of negative actions by the current administration.

This shift isn't merely cyclical politics—it represents a fundamental restructuring of how knowledge, talent, and innovation flow around the world. Indeed, US global dominance of science and higher education was unraveling well before the Trump Administration, with the massive investments in higher education and science by China and "excellence initiatives" in several other countries.

### Abandonment of Openness by the United States

US global dominance was built on openness—welcoming talent, fostering collaboration, and projecting intellectual leadership. Now, it is systematically dismantling this legacy through increasingly isolationist policies. Visa constraints, tariffs, and research funding cuts are pushing away international talent and allies, accelerating a self-inflicted decline, and creating space for middle powers to reshape global systems. The question is no longer whether the world will adapt to a retreating United States, but what patterns will emerge from the vacuum left behind.

The United States' rise as a scientific and economic superpower was rooted in its rejection of zero-sum thinking, from welcoming European refugees like Albert Einstein, John von Neumann, and Enrico Fermi in the 1930s to leveraging the Bayh-Dole Act's innovation ecosystem in the 1980s. Post-war investments in the National Aeronautics and Space

Administration (NASA) and Defense Advanced Research Projects Agency (DARPA) created a trilateral engine of academia, government, and industry that competitors could not replicate. This collaborative ecosystem became the country's strategic advantage. By 2020, immigrants had founded 55 percent of US billion-dollar startups—a testament to the nation's unique capacity to convert openness into advantage. International academics have added immeasurably to American higher education—for example, there are 420 Nobel Prize winners in the United States (44 percent of the global total have been awarded to Americans, and 36 percent of these awardees have been immigrants).

What happens when this advantage is deliberately surrendered?

### Visa Revocations and Declining Enrollment

The shift away from a historical openness to global talent is now producing measurable consequences. According to NAFSA, nearly 1,300 international students and scholars have had their visas revoked or their records terminated in the Student and Exchange Visitor Information System (SEVIS) since mid-March 2025. The American Immigration Lawyers Association (AILA) projects the number may be as high as 4,700. These enforcement actions target students across all types of higher education institutions.

The visa revocations are occurring against a backdrop of declining international student enrollment that began under the Biden Administration. According to NAFSA, "interest in US postgraduate education has plunged 40 percent since January 2025, while there is rising interest in Germany, France, and China as a study destination."

### The New Geography of Talent Mobility

As doors in the United States narrow for international talent, middle powers are strategically positioning themselves to capture displaced researchers and students. The *Economist's*

"footloose index" places Canada at the top, with the potential to gain 13 million skilled graduates if immigration barriers were removed, followed by Australia, while the United States has fallen to third position. A recent *Nature* poll reveals that 75 percent of US scientists who responded are considering leaving the country following the Trump Administration's research funding cuts and mass layoffs, with Europe and Canada being top destination choices.

A new geography of opportunity is emerging through targeted recruitment programs. Canada's Tech Talent Strategy courts US-based international talent with streamlined work permits. France's Talent Passport program actively recruits researchers in strategic fields like artificial intelligence. Even Norway is reportedly considering fast-track visas for American scientists fleeing funding instability.

At the same time, there is fear and resentment among foreign scholars about participating in conferences, seminars, and research projects in the United States. Some governments now warn their citizens to be aware that comments on social media or their own electronic devices may jeopardize entry into the United States. Similarly concerning is the practice of asking scholars to justify their funding sources and requiring them to [complete questionnaires](#) about various issues, including their connections to China.

## The Self-Sabotage of Scientific Capacity

This talent exodus is now compounded by a self-inflicted dismantling of its own research foundation. The National Science Foundation (NSF)—cornerstone of the country's innovation ecosystem—faces catastrophic budget cuts, with the Trump Administration proposing to slash its annual funding from \$9 billion to \$3 billion—a stunning 66 percent reduction. These budget cuts are forcing the cancellation of thousands of research grants, further accelerating the departure of scientists from US institutions. NSF Director Sethuraman Panchanathan has described these potential cuts as "devastating" and "a national security issue."

The contraction of US scientific capacity comes precisely when international collaboration is most essential. The existential challenges humanity faces—climate destabilization, pandemic prevention, and AI governance—demand transnational scientific cooperation. Yet at this critical juncture, the United

States has effectively triggered a neo-academic Cold War, which threatens to silo research into competing geopolitical blocs.

Evidence of this fragmentation is already measurable: US–China co-authored STEM papers declined by 15 percent between 2020 and 2022 as decoupling policies took effect. The retreat of the United States has created openings for alternative research hubs, with middle powers capitalizing on the vacuum. South Korea, Singapore, Australia, and Brazil are strategically positioning themselves as neutral collaboration zones, building scientific bridges precisely when the United States is burning them.

## Opportunities and Risks in a Transformed World

The convergence of visa revocations, enrollment declines, research funding cuts, and talent exodus presents an existential challenge to American scientific leadership. History offers a cautionary tale: Britain's mid-20th-century decline began not with military defeat but with restrictive immigration policies that depleted its scientific talent—a pattern the United States now appears to be repeating. Whatever the administration's intentions, the impact is likely to be economically damaging and geopolitically weakening for the United States' position in the world.

The world cannot wait for the United States to rediscover its role. Power abhors a vacuum—and the price of fragmentation is paid in stalled progress on global challenges and preventable crises. Reversing this trajectory demands rejecting the false dichotomy between national security and scientific openness—a stance advocated by over 1,900 National Academies members in a recent letter.

For US universities and research institutions, the implications are particularly severe: they face not merely cyclical enrollment declines but a structural realignment of global higher education. They must now prepare to exist in a world where their historical advantages—prestige, resources, and centrality to global knowledge networks—are rapidly eroding. Leading institutions will need to develop new partnerships and satellite presences abroad, much as businesses establish foreign subsidiaries to navigate protectionist barriers.

Will the United States recognize its self-sabotage before the point of no return? The world is already turning; the question is how far, and how irreversibly, the United States will let it go.

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