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WALKING THE TIGHTROPE: PROTECTING RESEARCH FROM FOREIGN  
EXPLOITATION WHILE FOSTERING RELATIONSHIPS WITH FOREIGN  
SCIENTISTS

C. JOHN COX<sup>1\*</sup>

In recent years, there has been no shortage of concern about Chinese capture of American innovation. News reports abound of the People's Republic of China (PRC) infiltrating corporate,<sup>2</sup> military,<sup>3</sup> and university technology strongholds,<sup>4</sup> pushing troves of technology to Beijing. Using its draconian reach and leveraging extreme patriotism and fear instilled in its people from their youth, much of this work has been conducted by Chinese civilians conscripted into the unsought service of their homeland.<sup>5</sup> Using its

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<sup>2</sup> Jordan Robertson & Michael Riley, *The Big Hack: How China Used a Tiny Chip to Infiltrate U.S. Companies*, BLOOMBERG (Oct. 4, 2018), <https://www.bloomberg.com/news/features/2018-10-04/the-big-hack-how-china-used-a-tiny-chip-to-infiltrate-america-s-top-companies>[<https://perma.cc/8Q5K-Y4AQ>]; Nicholas Yong, *Industrial Espionage: How China Sneaks Out America's Technology Secrets*, BBC (Jan. 16, 2023), <https://www.bbc.com/news/world-asia-china-64206950>[<https://perma.cc/TA72-NBXN>].

<sup>3</sup> Ma Xiu & Peter W. Singer, *How China Steals US Tech to Catch Up in Underwater Warfare*, DEFENSE ONE (Jun. 8, 2021), <https://www.defenseone.com/ideas/2021/06/how-china-steals-us-tech-catch-underwater-warfare/174558>[<https://perma.cc/W76D-RWSY>]; Press Release, U.S. Department of Justice, Chinese National Admits to Stealing Sensitive Military Program Documents from United Technologies (Dec. 19, 2016), <https://www.justice.gov/opa/pr/chinese-national-admits-stealing-sensitive-military-program-documents-united-technologies>[<https://perma.cc/9ZHC-PTNE>].

<sup>4</sup> Matt Farwell and Katie Banner, *Arkansas Professor is Accused of Hiding Chinese Funding*, N.Y. TIMES (May 11, 2020), <https://www.nytimes.com/2020/05/11/us/politics/professor-simon-ang-wire-fraud-china.html>[<https://perma.cc/7UQ9-RC9Y>]; Ken Dilanian, *FBI Director Defends Investigations of Chinese Academics in Front of University Audience*, NBC NEWS (Dec. 2, 2022), <https://www.nbcnews.com/politics/national-security/fbi-director-wray-defends-investigations-chinese-academics-rcna59864>[<https://perma.cc/EZL8-SDFR>] (the FBI director specifically stated that there is no “more serious, more persistent threat to our innovation, our ideas and our economic security than the Chinese Communist Party and the Chinese government”).

<sup>5</sup> Yaqiu Wang, *Pressures Chinese Students Face from the Chinese Government While Studying at American Universities*, Address at the National Science, Technology, and Security Roundtable Meeting 10 (Oct. 11, 2023) (recording available at [https://www.nationalacademies.org/event/40654\\_10-2023\\_national-science-technology-and-security-roundtable-meeting-10](https://www.nationalacademies.org/event/40654_10-2023_national-science-technology-and-security-roundtable-meeting-10)[<https://perma.cc/WF7F-MP84?type=image>]).

civilians in this way extended China's reach in a way that went unnoticed for many years.

Now, the curtain has been pulled back on China's use of its citizens, its Thousand Talents program, and other initiatives, leaving American policy and lawmakers to figure out a solution.<sup>6</sup> Federal law and policy, including those outlined in National Security Presidential Memorandum-33 (hereinafter NSPM-33), have targeted China and other international actors, seeking to prevent undesired technology transfer to foreign countries.<sup>7</sup> These programs have leveraged a swath of tools, all aimed at stemming the flow of domestic innovation to unwanted overseas locations. Although these policies may have the intended impact, they also have a high potential to cultivate an atmosphere of paranoia in U.S. universities, especially among Chinese students. In a world where the United States is no longer leading the world in science and is falling behind in various technologies,<sup>8</sup> this side effect must not be overlooked, and the United States must plan strategically how it will respond.

This article will provide a brief overview of the NSPM-33 and the impact of this domestic policy on international relationships. It will then address how the purposes of NSPM-33 can be enhanced while bolstering foreign policy interests by adopting lessons learned supporting domestic violence survivors, concluding with a recommendation that NSPM-33's purposes be enhanced with international policy aimed at welcoming bright foreign minds to life in the United States.

## **I. NSPM-33: Its Purpose and Its Impact**

NSPM-33 was one of the final acts of the Trump administration, and it is one perpetuated during President Biden's term. Signed on January 14,

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<sup>6</sup> Emily Weinstein, *Mapping China's Sprawling Efforts to Recruit Scientists*, DEFENSE ONE (Nov. 30, 2020), <https://www.defenseone.com/ideas/2020/11/mapping-chinas-sprawling-efforts-recruit-scientists/170373>[<https://perma.cc/D7DG-MCWX>].

<sup>7</sup> Presidential Memorandum on United States Government-Supported Research and Development National Security Policy, National Security Presidential Memorandum – 33 (Jan. 14, 2021) (available at <https://trumpwhitehouse.archives.gov/presidential-actions/presidential-memorandum-united-states-government-supported-research-development-national-security-policy/>[<https://perma.cc/5G29-PEHY>]).

<sup>8</sup> Jeffrey Mervis, *U.S. Science No Longer Leader the World. Here's How Top Advisers Say the Nation Should Respond*, SCIENCE (Jan. 21, 2022), <https://www.science.org/content/article/u-s-science-no-longer-leads-world-here-s-how-top-advisers-say-nation-should-respond>[<https://perma.cc/M26P-28JJ>].

2021, it directed action designed to buttress government-funded research and development (R&D) “against foreign government interference and exploitation.”<sup>9</sup> Acknowledging that some foreign governments—specifically naming the People’s Republic of China (PRC) as an example—take advantage of open scientific research conducted by the United States and other countries, NSPM-33 outlined steps to protect intellectual capital developed with U.S. taxpayer dollars.<sup>10</sup>

Steps required by NSPM-33 include the following:

- Enhancing awareness of the risk posed by certain foreign governments;
- A requirement that R&D funding recipients to disclose information about potential conflicts of interest and commitment;
- The establishment of research security programs at institutions receiving more than 50 million dollars in Federal science and engineering support; and
- Increased scrutiny of foreign students and researchers.

Each of these requirements intends to protect U.S. investment from undue foreign influence and exploitation while still “maintaining an open environment to foster research discoveries and innovation that benefit our nation and the world.”<sup>11</sup>

In its effort to advance these goals (protecting against foreign government influence and exploitation while trying to maintain an open environment for research), the Biden Administration published implementation guidance in January 2022.<sup>12</sup> This implementation guidance called on federal agencies to “continue to support open and transparent

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<sup>9</sup> NSPM-33.

<sup>10</sup> NSPM-33.

<sup>11</sup> NSPM-33.

<sup>12</sup> NATIONAL SCIENCE AND TECHNOLOGY COUNCIL, EXEC. OFF. OF THE PRESIDENT, Guidance for Implementing National Security Presidential Memorandum 33 (NSPM-33) on National Security Strategy for United States Government-Supported Research and Development (Jan. 2022) (hereinafter “NSPM-33 Implementation Guidance”).

scientific inquiry” while simultaneously asking that they identify and address risks.

Concerned about ostracizing bright foreign minds and chilling their participation in the U.S. science and research community, the implementation guidance specifically required implementation of NSPM-33 and its requirements “in a nondiscriminatory manner that does not stigmatize or treat unfairly members of the research community, including members of ethnic or racial minority groups.”<sup>13</sup>

However, effectuating a policy of including foreign scientists while thwarting foreign government exploitation is easier said than done. Political actions often have unanticipated consequences, especially when balancing two interests in tension.

Take, for example, the Congressional action regarding Confucius Institutes across U.S. university campuses. Confucius Institutes began popping up on U.S. university campuses in 2004.<sup>14</sup> Heralded by the PRC as “a bridge reinforcing friendship” between China and the rest of the world,<sup>15</sup> they soon became associated with pushing PRC propaganda, silencing discussion about Tibet, Taiwan, and Tiananmen Square, and “pressuring host universities to silence or censor talks on topics considered controversial by Beijing.”<sup>16</sup>

In response to the growing concern about these controversial institutes, Section 1062 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2021 prohibits the Department of Defense from providing funding to any “institution of higher education that hosts a Confucius Institute, other than amounts provided directly to students as educational assistance.” The impact of this prohibition had a significant effect: the

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<sup>13</sup> NSPM-33 Implementation Guidance at 1.

<sup>14</sup> THOMAS LUM & HANNAH FISCHER, CONG. RSCH. SERV., IF11180, CONFUCIUS INSTITUTES IN THE UNITED STATES: SELECTED ISSUES (2023).

<sup>15</sup> Pratik Jakhar, *Confucius Institutes: The Growth of China’s Controversial Cultural Branch*, BBC (Sep. 6, 2019) <https://www.bbc.com/news/world-asia-china-49511231> [<https://perma.cc/Q9SZ-DR6M>]; see also LUM *supra* note 13.

<sup>16</sup> Jakhar, *supra* note 14.

number of universities with Confucius Institutes plummeted after its enactment.<sup>17</sup>

However, in addition to their negative aspects, Confucius Institutes—for better or for worse—also maintained connections with Chinese students studying abroad in the United States, offering them a sense of home away from home.<sup>18</sup> Furthermore, although the curtailment of funding potentially stemmed undue PRC influence on U.S. campuses, it also reduced China-related cultural events, opportunities for U.S. students to learn Mandarin, and a mechanism to foster understanding between U.S. and Chinese students.<sup>19</sup> These actions, coupled with the increased scrutiny of foreign students and researchers called for by NSPM-33, make U.S. universities less desirable for Chinese students.<sup>20</sup> After all, although Chinese students present a potential espionage threat, they also present an opportunity. Many Chinese students “harbor reservations about their country’s direction,” and the United States would benefit from ensuring “that Chinese students maintain access to Western free thought and the institutions that safeguard it, rather than block those students at the gates.”<sup>21</sup>

## II. Chinese Students: Leveraging What the PRC Most Fears

Rather than isolate foreign, Chinese-speaking students, U.S. policy should help them feel at home. As a U.S. official told new media in 2019, “We want to be able to tap into [the Chinese] talent pool and not lose them back to China.”<sup>22</sup> To do this, U.S. influence needs to counteract the PRC’s influence over its citizens. This requires understanding what the PRC’s relationship with its people is.

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<sup>17</sup> LUM *supra* note 13.

<sup>18</sup> Wang, *supra* note 4.

<sup>19</sup> *Id.*

<sup>20</sup> Han Chen, *Chinese Students Cooling on U.S. Higher Education*, AXIOS (May 8, 2023), <https://www.axios.com/2023/05/08/chinese-students-us-education>[<https://perma.cc/256L-D4GX>].

<sup>21</sup> Diana Fu, *America Should Open Its Arms to Chinese Students*, N.Y. TIMES (Nov. 17, 2022), <https://www.nytimes.com/2022/11/17/opinion/america-chinese-students.html>[<https://perma.cc/7B3B-GDX8>].

<sup>22</sup> See Zachary Cohen & Alex Marquardt, *US Intelligence Warns China is Using Student Spies to Steal Secrets*, CNN (Feb. 1, 2019), <https://www.cnn.com/2019/02/01/politics/us-intelligence-chinese-student-espionage/index.html>[<https://perma.cc/C4QB-G3SC>].

To the PRC, its citizens are both a threat and a tool: a threat to the governing communist party and a tool to advance the party's interests. As one researcher into the PRC has pointed out, "Outwardly confident, an increasingly authoritarian [PRC] manifests mounting mistrust of its people, treating its own citizens as a potentially hostile force to be controlled and, if necessary, subdued."<sup>23</sup>

Despite this fear, the PRC sees value in using its citizens, especially those abroad, as pawns in advancing China's ruling party's interests. Through hundreds of talent plans, including the Thousand Talents program, the PRC leverages Chinese-speaking students around the globe to steal foreign technology.<sup>24</sup> Participants in these programs form a contractual relationship with Chinese universities or companies that usually requires being subject to Chinese laws and a requirement to share new technology with Chinese officials without informing U.S. employers or hosts (unless given special authorization from the PRC).<sup>25</sup>

However, these programs are not the only way the PRC "recruits" talent. According to a former Central Intelligence Agency (CIA) officer familiar with the PRC's intelligence activity, "We know without a doubt that anytime a graduate student from China comes to the U.S., they are briefed when they go, and briefed when they come back."<sup>26</sup>

The experience of Yaqiu Wang, an individual born in China who is now the Research Director for China, Hong Kong, and Taiwan at the Freedom House, highlights how aggressive the PRC can be with Chinese students studying abroad.<sup>27</sup> After returning to China from studying political science

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<sup>23</sup> Isabel Hilton, *The Chinese Communist Party's Fear of its People Spells Trouble*, THE ECONOMIST (Jun. 15, 2018), <https://www.economist.com/open-future/2018/06/15/the-chinese-communist-partys-fear-of-its-people-spells-trouble>[<https://perma.cc/SPD9-TWS6>]. See also Stephen McDonnell, *Why China Censors Banned Winnie the Pooh*, BBC (Jul. 17, 2017), <https://www.bbc.com/news/blogs-china-blog-40627855>[<https://perma.cc/ACH9-9P3S>] (highlighting how Chinese citizens posting memes juxtaposing Xi Jinping with Winnie the Pooh led to the PRC blocking the Chinese name for the animated character on social media sites to protect the PRC's leader's image).

<sup>24</sup> *The China Threat*, FED. BUREAU OF INVESTIGATION, <https://www.fbi.gov/investigate/counterintelligence/the-china-threat/chinese-talent-plans> (last visited Dec. 1, 2023)[ <https://perma.cc/EDG5-PXTV>].

<sup>25</sup> *Id.*

<sup>26</sup> Cohen and Marquardt, *supra* note 21.

<sup>27</sup> Wang, *supra* note 4.

in the U.S., PRC officials met her at the airport.<sup>28</sup> They took her to a local hotel, questioning her about posts on Twitter that she thought were anonymous and threatening her with legal action unless she was willing to send information to the PRC.<sup>29</sup> They intimidated her, threatened her, and appealed to devotion to her homeland and parents, leveraging fear and extreme patriotism instilled in her through schooling in an attempt to control and manipulate her.<sup>30</sup> Unfortunately for the PRC, although its attempts to use her for information frightened her deeply, she ultimately turned her back on the PRC and its objectives in favor of advancing democracy and basic freedoms enshrined in the U.S. Constitution.<sup>31</sup> Dedicating her life to revealing how the PRC treats its citizens, she now knows this was not unique to her—the PRC commonly employs these tactics.<sup>32</sup>

The PRC's efforts to control its people are not constrained to its borders. By use of WeChat, "a super-app that combines the functions of social media, messaging, financial services, travel, food delivery, [and] ride-hailing" that happens to be controlled and monitored by the Chinese government, the PRC keeps tabs on and controls information received by 1.2 billion users worldwide.<sup>33</sup> The PRC's control of this super-app lets it block websites that do not comply with censorship requirements, controlling the news and other information users see.<sup>34</sup> Furthermore, users who attempt to bypass the PRC's controls are penalized for doing so.<sup>35</sup> China's ruling party wants to know what its citizens are saying, and it wants to control the messages they receive.

The PRC's treatment of its own citizens parallels the way domestic violence offenders lord over those close to them. The U.S. Department of Justice defines domestic violence as "a pattern of abusive behavior in any relationship that is used by one partner to gain or maintain power and

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<sup>28</sup> *Id.*

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

<sup>33</sup> Yaqiu Wang, *WeChat is a Trap for China's Diaspora*, FOREIGN POLICY (Aug. 14, 2020), [https://foreignpolicy.com/2020/08/14/wechat-ban-trump-chinese-diaspora-china-surveillance/\[https://perma.cc/B7TN-5B4L\]](https://foreignpolicy.com/2020/08/14/wechat-ban-trump-chinese-diaspora-china-surveillance/[https://perma.cc/B7TN-5B4L]).

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*



control over another intimate partner;” and control is what the PRC’s goal is with its citizens.<sup>36</sup> Abusive behavior ranges from physical and sexual abuse through psychological and technological abuse. Less commonly known than physical and sexual abuse, psychological abuse includes threatening harm to a partner, or people close to the partner, and isolation from family, friends, school, or work.<sup>37</sup> Technological abuse includes behavior aimed at harming, controlling, exploiting, or monitoring others using established or emerging technologies.<sup>38</sup>

As exemplified by Ms. Wang’s experience, the PRC uses these domestic violence control tactics to maintain power and control over its citizens.<sup>39</sup> Students interrogated like her are subjected to psychological abuse, and WeChat users suffer technological abuse. Although it has proven very difficult for survivors of domestic violence to leave their abusers,<sup>40</sup> understanding that Chinese citizens are essentially trapped in an abusive relationship—with their government as the perpetrator—enables the United States to formulate policy to help them break free.

### III. Empowering Students and Gaining Allies

Effective American policy should seek to break the PRC’s grip on Chinese citizens who come to study at U.S. universities by recognizing the abusive relationship the PRC has with its people and responding accordingly. Fortunately, the United States can draw from the growing body of research and policy focused on helping those who suffer domestic abuse to leave their abusers.

Research shows that a variety of factors prevent those who suffer domestic violence from leaving their abusers. These factors include the following: cognitive failure to recognize they are being abused (which includes self-blaming attitudes and learned helplessness), economic

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<sup>36</sup> *Domestic Violence*, OFF. ON VIOLENCE AGAINST WOMEN, U.S. DEP’T OF JUSTICE, <https://www.justice.gov/ovw/domestic-violence> (last updated Dec. 6, 2023)[<https://perma.cc/P3VC-W3TU>].

<sup>37</sup> *Id.*

<sup>38</sup> *Id.*

<sup>39</sup> Wang, *supra* note 4.

<sup>40</sup> Daniela Bi Basilio et al., *Conceptualising the Separation from an Abusive Partner as a Multi-Factorial, Non-Linear, Dynamic Process: A Parallel with Newton’s Laws of Motion*, 13 FRONT. PSYCHOL. at 02 (2022) (available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9403895/>[<https://perma.cc/E4KK-VKJ8>]).

independence, economic stability, and the type and quality of support received from loved ones, counselors, police, social services, etc.<sup>41</sup>

State and federal law enforcement and courts have used these findings to create ways to help survivors leave their abusers and to increase victim participation in the prosecution of offenses. Government-created programs range from educational campaigns and hotlines<sup>42</sup> to monetary benefits designed to create economic stability. As the military has combated domestic violence within its ranks, it has developed similar programs.<sup>43</sup> Furthermore, the Biden administration announced nearly \$200 million from the American Rescue Plan to support services for survivors of domestic violence.<sup>44</sup>

Just as federal funds and policy are used to empower and protect domestic violence survivors, it can also be used to empower and protect Chinese students—and help them find a home in the United States. Chinese students will need similar support to break free from the PRC’s abusive control in their lives. They need to understand that they are being abused and that they are not alone through hotlines and support networks. They need advocates trained to understand their needs and culture, allowing them to share Chinese culture without the PRC’s control. They need the hope of a better future in a place that values their skills, knowledge, and intelligence while respecting rights, such as freedom of speech and freedom of association.

#### IV. Conclusion

When it comes to U.S. national strategy relating to science and technology, America is walking a tightrope. As it adjusts to counter foreign governments’ exploitation of its investments in innovation, it needs to simultaneously channel additional policy and funding to foster support from foreign scientists and engineers. If it puts the proper infrastructure

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<sup>41</sup> *Id.* at 02-03.

<sup>42</sup> *See e.g.*, The National Domestic Violence Hotline, available at <https://www.thehotline.org> (Providing information about identifying abuse, planning for safety, and supporting those in domestic violence situations.).

<sup>43</sup> *See e.g.* DEPARTMENT OF THE AIR FORCE INTEGRATED RESILIENCE, <https://www.resilience.af.mil/Domestic-Abuse-Survivor-Support/> (last visited Nov. 30, 2023)[<https://perma.cc/PN7L-MK4V>].

<sup>44</sup> American Rescue Plan Act of 2021, Pub. L. No. 117-2, 135 Stat. 4, 34-35.

and resources in place to make that happen—especially with citizens of autocratic states willing to coerce and manipulate their own citizens—it can improve its research security and relations with foreign science professionals.