

STOLEN RICHES: STOPPING CHINA'S CONTINUED THEFT OF AMERICAN INTELLECTUAL PROPERTY

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INTRODUCTION

Intellectual property drives much of America's economy.¹ China has sought to reap the same benefit² for their own economy not by developing intellectual property, but by misappropriating it from the United States.³ This theft of American intellectual property is a pervasive problem, and it has grown progressively worse over the past twenty years.⁴ In 2019, 20% of U.S. CFO council companies reported theft within the prior year,⁵ and such theft totaled around half a trillion dollars.⁶ Part I of this Note will provide the backdrop for this continued looting, including tracing its history throughout the last few decades and outlining its extensive scope. Part II of this Note will address the chief avenues that make such blatant theft possible, including (i) China's intrusion into U.S. academia, and (ii) the transparency required with state-run Chinese companies. Even with this acceleration of theft in recent years, however, there has been little to no development in the

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1. In 2013, IP-intensive industries and firms accounted for 35% of the labor force in the United States and contributed \$6.9 trillion to the economy. NAT'L BUREAU OF ASIAN RSCH., UPDATE TO THE IP COMM'N REP. (2017), https://www.nbr.org/wp-content/uploads/pdfs/publications/IP_Commission_Report_Update.pdf.

2. Yukon Huang & Jeremy Smith, *China's Record on Intellectual Property Rights Is Getting Better and Better*, FOREIGN POLICY (Oct. 16, 2019, 9:52 PM), <https://foreignpolicy.com/2019/10/16/china-intellectual-property-theft-progress/> ("Economists see the accumulation and dissemination of knowledge as key to sustainable economic growth.").

3. See Derek Scissors, *The Rising Risk of China's Intellectual-Property Theft*, AEI (July 16, 2021), <https://www.aei.org/articles/the-rising-risk-of-chinas-intellectual-property-theft/>.

4. Megan Gates, *An Unfair Advantage: Confronting Organized Intellectual Property Theft*, ASIS (July 1, 2020), <https://www.asisonline.org/security-management-magazine/articles/2020/07/an-unfair-advantage-confronting-organized-intellectual-property-theft/>.

5. Eric Rosenbaum, *1 in 5 Corporations Say China Has Stolen Their IP Within the Last Year: CNBC CFO Survey*, CNBC (Mar. 1, 2019, 10:21 AM), <https://www.cnbc.com/2019/02/28/1-in-5-companies-say-china-stole-their-ip-within-the-last-year-cnbc.html>.

6. Huang & Smith, *supra* note 2.

ability to curtail it.⁷ So, Part III will explore solutions to address those gaps in policy concerning intellectual property enforcement and protection. This will take a two-pronged analysis: first, from an American domestic policy perspective—namely the implementation of trade restrictions and higher education reform—then, from an international law perspective, such as increasing the availability of remedies within the Chinese courts and utilizing European allies to apply pressure on infringing governments.

I. THE HISTORICAL MODEL: THEFT WITHOUT RECOURSE

Tracing back centuries, China has historically sought to maintain a level of state (or dynastical) control over what is now considered to be “intellectual property.”⁸ As far back as the 1980s the Chinese began to have access to American intellectual property, as China and the U.S. reestablished trade relations in 1979.⁹ Then, with the signing of the U.S.-China Relations Act of 2000 and the rapid increases in trade between the countries (from approximately \$5 billion to over \$200 billion in just twenty years),¹⁰ the level of infringement saw a spike post-2000, especially with regards to cyber espionage.¹¹ And while China implemented laws purporting to protect intellectual property, enforcement is often lax or yields outcomes antithetical to the ones intended.¹²

Beginning around 1980, China agreed to adhere to certain intellectual property protection treaties and, in 2001, became subject to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) when it joined the World Trade Organization (WTO).¹³ While containing objectives for intellectual property protection, the actual interpretation and implementation of that treaty, including its enforcement measures, was left open to each member state to decide for itself.¹⁴ This ambiguity led to selective enforcement, cost increases, and undue administrative burdens placed upon the private intellectual property rights holders, thereby creating

7. NAT'L BUREAU OF ASIAN RSCH., *supra* note 1.

8. Kimberly Shane, *Culture, Poverty, and Trademarks: An Overview of the Creation and Persistence of Chinese Counterfeiting and How to Combat It*, 16 INTELL. PROP. L. BULL. 137, 138-40 (2012).

9. *U.S.-China Relations*, COUNCIL ON FOREIGN RELS., <https://www.cfr.org/timeline/us-china-relations> (last visited Nov. 6, 2022).

10. *Id.*

11. Gates, *supra* note 4.

12. Shane, *supra* note 8, at 147.

13. *Id.* at 143-44.

14. *Id.* at 146.

a disincentive to seek enforcement of the very rights that the holders sought to protect.¹⁵

Moreover, any potential avenues for relief in Chinese courts may likewise be futile, with U.S. companies finding themselves bogged down in lengthy and costly litigation, assuming that those companies are even able to employ competent, local representation.¹⁶ They are also faced with complex and inefficient courts, which are often biased in favor of domestic (Chinese) companies and against U.S. companies, and have even encountered corrupt judges.¹⁷ So, while China has implemented some protections, as visualized in the graph below, those protections (or at least their enforcement) favor domestic over foreign companies. Existing intellectual property law in China is therefore lacking in its ability to effectively protect foreign companies doing business there. More detail on these challenges and their respective solutions will be provided in later sections.

15. *Id.* at 147-48.

16. *Id.* at 148, 153.

17. *Id.* at 153.

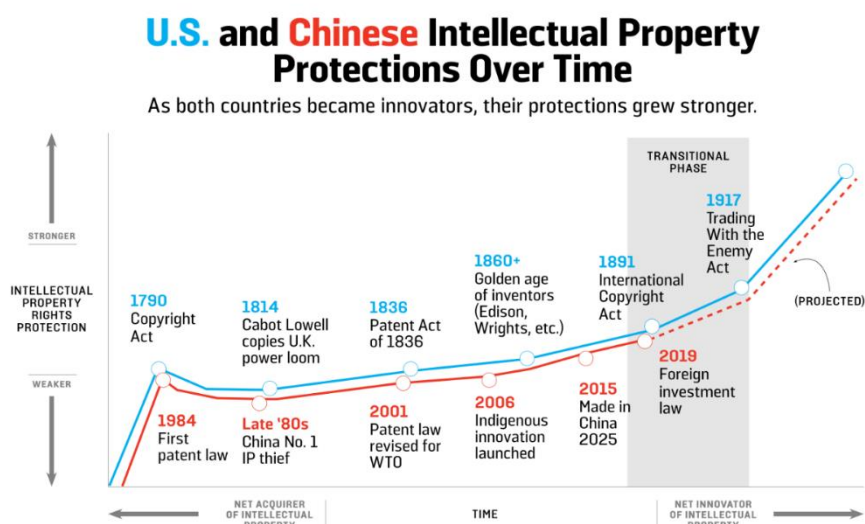


Figure 1: U.S. and Chinese Intellectual Property Protections Over Time¹⁸

The amount of stolen intellectual property and its corresponding effect on the U.S. economy is startling. For example, a Global CFO Council report reflected that nearly 30% of companies reported intellectual property theft in the last ten years.¹⁹ This theft corresponded to a loss to the U.S. economy of up to 600 billion dollars annually,²⁰ bringing the total theft into the trillions over just one decade. “China and Hong Kong [alone] account for over 83% of U.S. seizures of counterfeit goods.”²¹ In just the first half of 2022, two Chinese law enforcement operations seized 45.27 million infringing goods.²² Counterfeiting, however, is not the only difficulty presented by unfair Chinese trade practices. Trade secret theft (which is only one subset of intellectual property as a whole) is estimated to cost the U.S. 1%-3% of its Gross Domestic Product (GDP), which corresponds in monetary value to between \$180 billion and \$540 billion.²³

18. Huang & Smith, *supra* note 2.

19. Rosenbaum, *supra* note 5.

20. Huang & Smith, *supra* note 2.

21. OFF. OF THE U.S. TRADE REPRESENTATIVE, SPECIAL 301 REP. (2022).

22. Aaron Winger, *Chinese Customs Announces a Batch of Typical Cases of Intellectual Property Infringement*, NAT'L L. REV. (July 26, 2022), <https://www.natlawreview.com/article/chinese-customs-announces-batch-typical-cases-intellectual-property-infringement>.

23. NAT'L BUREAU OF ASIAN RSCH., *supra* note 1, at 12.

In addition to slowed economic growth, intellectual property theft has serious implications for consumers, governments, and across various industries.²⁴ While consumers may derive some short-term financial benefit from cheap counterfeit products, the quality of those goods is subpar and consumers may also face health and safety risks when purchasing products such as pharmaceuticals, automotive parts, electrical components, toys, and household goods.²⁵ Governments (federal, state, and local) also suffer adverse consequences, namely through lost tax revenue, high enforcement costs, and compromised supply chains.²⁶ Lastly, some of the biggest negative effects impact American industry. One of the most obvious consequences is decreased revenues and profits from unfair competition.²⁷ But in addition to that (and possibly even more detrimental) is a resulting decline in innovation and new investment since the cost of that research and development will no longer be remunerated.²⁸ And, as noted above, companies will have to spend more both to protect their intellectual property and to litigate claims once it has been stolen.²⁹ This especially hurts small businesses who do not have the resources or time to try and recoup their losses³⁰ (nearly a third of claims filed with the U.S. International Trade Commission take more than a year to be resolved).³¹

This theft that not only harms the economy as a whole, but harms individual companies, its shareholders and employees, and consumers, warrants a deeper dive into how it is happening and what the U.S. and its allies can do to stop it.

II. PULLING BACK THE CURTAIN: IDENTIFYING THE AVENUES BY WHICH INTELLECTUAL PROPERTY IS EXPOSED TO THEFT

A. *China's Invasion of American Academia*

China implemented, among other talent plans, the Thousand Talent Program to, according to the Federal Bureau of Investigation (FBI), inject

24. U.S. GOV'T ACCOUNTABILITY OFF., GAO-10-423, INTELLECTUAL PROPERTY: OBSERVATIONS ON EFFORTS TO QUANTIFY THE ECONOMIC EFFECTS OF COUNTERFEIT AND PIRATED GOODS 12, 14 (2010).

25. *Id.* at 9-10.

26. *Id.* at 12-13.

27. *Id.* at 11.

28. *Id.* at 12.

29. *Id.*

30. JOINT ECON. COMM., THE IMPACT OF INTELLECTUAL PROPERTY THEFT ON THE ECONOMY 3 (2012).

31. *Id.*

individuals, including students, employees, and professors, into businesses, laboratories, and universities.³² Paid large sums of money, and other benefits like free housing, people with loyalties to the Chinese Communist Party (CCP) transmit research gleaned from these institutions back to China, and are often rewarded with additional incentives for acquiring proprietary information.³³ Although these programs themselves are not illegal, “talent plans usually involve undisclosed and illegal transfers of information, technology, or intellectual property that are one-way and detrimental to U.S. institutions.”³⁴

In 2020, the former Chair of Harvard University’s Chemistry and Chemical Biology Department was indicted for making false statements regarding his participation in the Thousand Talents Program.³⁵ Under a three-year contract, Wuhan University of Technology (WUT) paid Dr. Charles Lieber, who specialized in nanoscience at Harvard, a salary of \$50,000 per month, provided him with \$158,000 in living expenses, and awarded him \$1.5 million for a lab at WUT.³⁶ Likewise, the Chinese Academy of Sciences paid Dr. James Patrick Lewis a living subsidy of \$143,000, a research subsidy of \$573,000, and a salary of \$86,000 for his participation in the Thousand Talents Program.³⁷ Instead of spending his parental leave from West Virginia University during the Fall 2018 semester with his family, Lewis spent that time in China “provid[ing] research training and experience for Chinese Academy of Sciences students.”³⁸ The incentives to participate in these programs are highly lucrative and have driven a significant number of scientists and professors to involve themselves with

32. *The China Threat: Chinese Talent Plans Encourage Trade Secret Theft, Economic Espionage*, FBI, <https://www.fbi.gov/investigate/counterintelligence/the-china-threat/chinese-talent-plans> (last visited Nov. 4, 2022).

33. U.S. DEP’T OF JUST., FORMER WEST VIRGINIA UNIVERSITY PROFESSOR PLEADS GUILTY TO FRAUD THAT ENABLED HIM TO PARTICIPATE IN THE PEOPLE’S REPUBLIC OF CHINA’S “THOUSAND TALENTS PLAN” (2020), <https://www.justice.gov/opa/pr/former-west-virginia-university-professor-pleads-guilty-fraud-enabled-him-participate-people> (“[P]articipants are often incentivized to transfer proprietary information or research conducted in the U.S. to China.”).

34. FBI, *supra* note 32.

35. U.S. DEP’T OF JUST., HARVARD UNIVERSITY PROFESSOR INDICTED ON FALSE STATEMENT CHARGES (2020), <https://www.justice.gov/opa/pr/harvard-university-professor-indicted-false-statement-charges>.

36. *Id.*

37. U.S. DEP’T OF JUST., *supra* note 33.

38. *Id.*

China.³⁹ Grants issued by the Thousand Talents Program at Tianjin University's chemistry department alone have attracted scientists from the University of South Florida, the University of California, San Diego, and Texas A&M, among others.⁴⁰

A nefarious pattern emerged as the Department of Justice began to investigate those participating in the Thousand Talents Program; professors and scientists work simultaneously for an American university and for one in China.⁴¹ Dr. Xiao-Jiang Li, another Thousand Talents participant, however, worked for not just one university in China but two, while he was also employed at Emory University in Atlanta, Georgia.⁴² Furthermore, his research in China directly mirrored that of his research at Emory.⁴³ These intrusions have even extended to the Los Alamos National Laboratory under the Department of Energy and other such entities⁴⁴ where Thousand Talents participants are using federal research funds to make medical, technological, and other types of improvements which are then transferred straight to the CCP.⁴⁵ As was noted above, the participants are also working and teaching in China; so research is being stolen from universities and laboratories and then the same scientists and professors are training the Chinese on how to use it,⁴⁶ since “[i]t does little good to steal intellectual property if you do not have the expertise to use it.”⁴⁷ Theft of both concrete research and the researcher's knowledge and skills training poses national security risks and harms the taxpayer and the financial interests and credibility of academic institutions

39. See James Jin Kang, *The Thousand Talents Plan Is Part of China's Long Quest to Become the Global Scientific Leader*, THE CONVERSATION (Aug. 31, 2020), <https://theconversation.com/the-thousand-talents-plan-is-part-of-chinas-long-quest-to-become-the-global-scientific-leader-145100>.

40. Ellen Barry & Gina Kolata, *China's Lavish Funds Lured U.S. Scientists. What Did It Get in Return?*, N.Y. TIMES (Feb. 7, 2020), <https://www.nytimes.com/2020/02/06/us/chinas-lavish-funds-lured-us-scientists-what-did-it-get-in-return.html>.

41. See U.S. DEP'T OF JUST., FORMER EMORY UNIVERSITY PROFESSOR AND CHINESE “THOUSAND TALENTS” PARTICIPANT CONVICTED AND SENTENCED FOR FILING A FALSE TAX RETURN (2020), <https://www.justice.gov/opa/pr/former-emory-university-professor-and-chinese-thousand-talents-participant-convicted-and>.

42. *Id.* (employed at both Chinese Academy of Sciences and Jinan University).

43. *Id.* (conducted large animal model research).

44. U.S. DEP'T OF JUST., FORMER EMPLOYEE AT LOS ALAMOS NATIONAL LABORATORY SENTENCED TO PROBATION FOR MAKING FALSE STATEMENTS ABOUT BEING EMPLOYED BY CHINA (2020), <https://www.justice.gov/opa/pr/former-employee-los-alamos-national-laboratory-sentenced-probat-ion-making-false-statements>.

45. U.S. DEP'T OF JUST., UNIVERSITY RESEARCHER SENTENCED TO PRISON FOR LYING ON GRANT APPLICATIONS TO DEVELOP SCIENTIFIC EXPERTISE FOR CHINA (2020), <https://www.justice.gov/opa/pr/university-researcher-sentenced-prison-lying-grant-applications-develop-scientific-expertise>.

46. U.S. DEP'T OF JUST., *supra* note 33.

47. Gates, *supra* note 4 (internal quotation marks omitted).

and their professors.⁴⁸ Measures are desperately needed to curtail this infringement and the solutions in Part III will at least offer a start toward its rectification.

B. *Chinese Companies as State Actors*

As a condition to doing business in China, U.S. companies must often agree to partner with or allow oversight from a Chinese company.⁴⁹ Those Chinese companies in turn are required to offer complete transparency to the CCP, as they are either partially or wholly owned by the Chinese government.⁵⁰ Currently, the benefits for American companies to do business with China, either because of the vast market, the availability of cheap labor (which in turn makes selling products in America easier), or both, create too great an incentive for them to refuse the intrusive terms.⁵¹

The United States Trade Representative acknowledged that these joint ventures are often a vessel for the CCP to pressure foreign (particularly American) companies to turn over their intellectual property: China has implemented a “range of measures and practices that force or pressure U.S. right holders to relinquish control of their valuable IP as a condition for accessing the large and growing Chinese market.”⁵² Furthermore, China “uses foreign ownership restrictions, such as joint venture requirements and foreign equity limitations, and various administrative review and licensing processes, to require or pressure technology transfer from U.S. companies.”⁵³ Firms in China “gain foreign expertise in such areas as investment, intellectual property and technical know-how, usually through mandatory joint ventures.”⁵⁴ The Chinese government has a propensity for “conditionally allow[ing] in industries that the country needs or needs to

48. FBI, *supra* note 32.

49. OFF. OF THE U.S. TRADE REPRESENTATIVE, SPECIAL 301 REP. (2018).

50. Michael J. Meagher & Lucia Lian, *Chinese Law for Lao Wai: A Survey of Chinese Law for American Business Lawyers*, BOS. BAR J. 17, 17 (2007).

51. See Kenneth Rapoza, *Why American Companies Choose China Over Everyone Else*, FORBES (Sept. 3, 2019), <https://www.forbes.com/sites/kenrapoza/2019/09/03/why-american-companies-choose-china-over-everyone-else/>; Akiko Fujita, *US Companies Plan to ‘Do More, Not Less’ Business in China: Ian Bremmer*, YAHOO FINANCE (Jan. 8, 2022), <https://finance.yahoo.com/news/us-companies-plan-to-do-more-not-less-business-in-china-despite-political-risks-ian-bremmer-125225171.html>.

52. OFF. OF THE U.S. TRADE REPRESENTATIVE, *supra* note 49.

53. *Id.*

54. Sabri Ben-Achour & Jennifer Pak, *For U.S. Service Firms, Access to China Still Mixed*, MARKETPLACE (Feb. 12, 2021), <https://www.marketplace.org/2021/02/12/for-u-s-service-firms-access-to-china-still-mixed/>.

learn from.”⁵⁵ And once the U.S. company has been fully exploited, having transferred the required intellectual property over to the Chinese “partner,” the CCP will implement policies that have a “pronounced bias” in favor of the domestic (Chinese) companies,⁵⁶ leaving the U.S. company to fend for itself.

The benefits gleaned through this approach are prodigious. Not only do Chinese partner companies realize increases in productivity after they are joined to a U.S. company, but Chinese non-partner companies across the given industry also see similar increases.⁵⁷ Rather than facing hardship in the market due to the increased competition (from a U.S. company with arguably better technology, products, etc.), the Chinese companies—regardless of whether or not they are affiliated with that U.S. company—start doing better.⁵⁸ It follows that the partner company is not the only one receiving a windfall from access to American intellectual property. Its widespread dissemination across companies boosts the entire industry: “[t]he overall benefits to Chinese firms from international joint ventures are larger than those from other types of foreign direct investment,” and the “benefits are larger if the foreign partner is from the United States,” by roughly double.⁵⁹ In 2015 alone, there were 6,000 new joint ventures in China.⁶⁰ Even if some companies have the resources and foresight to protect their intellectual property and the theft is therefore limited to a fraction of the 6,000 joint ventures, the sheer amount of information being transferred is still alarming.

The CCP has also used updates to their cybersecurity policies, including the adoption of their Cryptography Law in 2019 and Cybersecurity Review Measures in 2020, to further siphon intellectual property from U.S. companies doing business in China.⁶¹ It “invoke[d] security concerns in order to erect market access barriers, require the disclosure of critical IP, or discriminate against foreign-owned or -developed IP.”⁶² Again, U.S. companies are being “forced to choose between protecting their IP against

55. *Id.*

56. *Id.*

57. Laurent Belsie, *The Spillover Effects of International Joint Ventures in China*, NAT’L BUREAU OF ECON. RSCH. (Aug. 2018), <https://www.nber.org/digest/aug18/spillover-effects-international-joint-ventures-china>.

58. *Id.*

59. *Id.*

60. *Id.*

61. OFF. OF THE U.S. TRADE REPRESENTATIVE, SPECIAL 301 REP. (2021).

62. *Id.*

unwarranted disclosure and competing for sales in China.”⁶³ Like China’s incursion into U.S. academic and research institutions, this intrusion into U.S. companies doing business in China presents an ongoing and equally inimical problem that requires a swift response and prompt, yet effective, solutions.

III. BUILDING BARRIERS: A PATH TO DEFENDING AGAINST INTERNATIONAL IP ESPIONAGE

A. Domestic Solutions

1. Trade Policy

Tariffs can be, and have been, used by previous administrations to exert pressure on China.⁶⁴ The intertwinement of the two economies, however, makes it difficult to create a balanced approach.⁶⁵ China relies significantly on exporting to the U.S., but the U.S. likewise relies heavily on Chinese imports.⁶⁶ Establishing high tariffs threatens not only China’s economy, but America’s too; tariffs drive up prices and have labor implications on U.S. soil.⁶⁷ Tariffs must be targeted specifically to affected industries while avoiding large adverse effects. Furthermore, because of this, in addition to having limited formal trade dispute mechanisms, it has been difficult to apply and enforce international trade obligations.⁶⁸ It will take increased cooperation with other countries, particularly those with large-scale, global economies, to both enforce these policies and put pressure on China to reform their illicit practices.

For example, the Trump Administration used technology controls (curbing the flow of technology to and from China) to “help combat unfair Chinese practices.”⁶⁹ Tariffs were placed on large categories of Chinese tech products including smart devices, flash memory devices, and electronic

63. *Id.*

64. Chad P. Bown, *Four Years into the Trade War, Are the US and China Decoupling?*, PETERSON INST. FOR INT’L ECON. (Oct. 20, 2022), <https://www.piiie.com/blogs/realtime-economics/four-years-trade-war-are-us-and-china-decoupling>.

65. *Id.*

66. *Id.*

67. *Id.*

68. Jon Bateman, *Countering Unfair Chinese Economic Practices and Intellectual Property Theft*, CARNEGIE ENDOWMENT FOR INT’L PEACE (Apr. 25, 2022), <https://carnegieendowment.org/2022/04/25/countering-unfair-chinese-economic-practices-and-intellectual-property-theft-pub-86925>.

69. *Id.*

components in order to “impos[e] costs for China’s intellectual property theft” and to “seek[] concessions at the bargaining table.”⁷⁰ The tariffs not only serve as a “punishment meant to induce changes in Chinese behavior,” but “technology restrictions can aim to counteract the benefits China receives from unfair practices,” equalizing economic competition (working like countervailing duties offsetting foreign subsidies).⁷¹ Moreover, these technology controls can simply “reduce China’s opportunities to act unfairly.”⁷² For instance, by discouraging American telecoms from using Chinese equipment, the U.S. can at least limit China’s ability to leverage that equipment to steal intellectual property.⁷³ So, while there are risks to measures like tariffs, a nuanced and targeted approach can put pressure on China to rethink some of its policies and, at the very least, to continue to crack down on customs enforcement (similar to the operations noted above).

2. U.S. Court System

While programs like the Thousand Talents Program are not in and of themselves illegal,⁷⁴ U.S. prosecutors are able to prosecute perpetrators of intellectual property theft under a variety of avenues, including export laws, theft of trade secrets, and tax fraud. Many of the Thousand Talent participants fail to disclose their participation in the program or subsequently perjure themselves when questioned by the Department of Justice about their involvement with China, or both.⁷⁵ For example, Dr. Li was indicted on tax fraud charges for failing to report income he received from the program.⁷⁶ And Song Guo Zheng was arrested in Alaska while attempting to flee to China.⁷⁷ Among his possessions were multiple laptops, cell phones, and USB drives.⁷⁸ Transferring proprietary information to these types of “personal electronic storage devices” can be and has been prosecuted under many of the following statutes.⁷⁹

70. *Id.*

71. *Id.*

72. *Id.*

73. *Id.*

74. FBI, *supra* note 32.

75. U.S. DEP’T OF JUST., *supra* note 35.

76. U.S. DEP’T OF JUST., *supra* note 41.

77. U.S. DEP’T OF JUST., *supra* note 45.

78. *Id.*

79. *See* United States v. Yihao Pu, 814 F.3d 818, 822 (7th Cir. 2016) (indicting defendant on twenty-three counts, including wire fraud, unlawful transmission of trade secrets, unlawful possession of

The Economic Espionage Act of 1996 (EEA) subjects an individual to a fine, imprisonment, or both, if: “with intent to convert a trade secret, that is related to a product or service used in or intended for use in interstate or foreign commerce, to the economic benefit of anyone other than the owner thereof, and intending or knowing that the offense will, injure any owner [there]of,” that person knowingly “steals, or without authorization appropriates, takes, carries away, or conceals, or by fraud, artifice, or deception obtains such information,” or “without authorization copies, duplicates, sketches, draws, photographs, downloads, uploads, alters, destroys, photocopies, replicates, transmits, delivers, sends, mails, communicates, or conveys such information.”⁸⁰

The Computer Fraud and Abuse Act of 1986 criminalizes accessing a “computer without authorization or exceeding authorized access” and obtaining a variety of materials including classified information, financial records, and, importantly, “anything of value,” provided that there was an intent to defraud and the conduct furthers that fraud.⁸¹

Furthermore, under the National Stolen Property Act of 1934, anyone who “transports, transmits, or transfers in interstate or foreign commerce any goods, wares, merchandise, securities or money, of the value of \$5,000 or more, knowing the same to have been stolen, converted or taken by fraud” is subject to up to ten years’ imprisonment.⁸² Much of what is taken falls under “stolen,” or at least “taken by fraud,” and is typically worth well over \$5,000 (or it would not be worth taking in the first place given how much compensation many of the talent plan participants receive).

Actions commenced under these acts cover misappropriation of trade secrets, including through the use of computers, but there are even more avenues the U.S. can pursue, such as mail and wire fraud. These can serve as effective tools to incentivize disclosure and prevent Thousand Talents participants from misusing their positions at American universities and laboratories, since each count of wire fraud alone can warrant up to twenty years’ imprisonment.⁸³ And, as noted above, others have been indicted on tax fraud charges, perjury, and even obstruction of justice.⁸⁴ By using all of the resources at their disposal, the Department of Justice can crack down on the

trade secrets, unauthorized access of a protected computer, and obstruction of justice, for copying files from two employers).

80. 18 U.S.C. § 1832(a).

81. 18 U.S.C. § 1030(a).

82. 18 U.S.C. § 2314.

83. 18 U.S.C. § 1343.

84. See U.S. DEP’T OF JUST., *supra* note 45; U.S. DEP’T OF JUST., *supra* note 41.

unfair and unlawful practices and curb the abuse of the higher education system as well as national research institutions.

For example, the U.S. charged Dongfan Chung with acting as a foreign agent, conspiring to violate the EEA, six counts of violating the EEA, making a false statement to the FBI, and obstructing justice; he was convicted of all charges except obstructing justice.⁸⁵ Chung was an engineer for Boeing and an agent of China, contributing sensitive, proprietary designs and other information to their Four Modernizations program⁸⁶ for multiple decades.⁸⁷ He not only provided this information to the Chinese, but even prepared and gave presentations to Chinese universities and aircraft manufacturers.⁸⁸ At his home in the U.S., Chung had concealed a library that contained 300,000 pages of trade secret and proprietary information belonging to Boeing, including over 700 documents related to the Shuttle Drawing System as well as military documents relating to the F-15 fighter, B-52 bomber, and Chinook helicopter.⁸⁹ In regards to the foreign agent charge, the U.S. found extensive records of communications between Chung and Chinese officials, which the court called “overwhelming” and “voluminous” evidence of Chung’s work as a spy:⁹⁰ it “establishes without a doubt that Mr. Chung was collecting highly technical aerospace and military technology belonging to Boeing and then passing that technology to [China]” and that he was “engaged in this conduct under the direction and control of [Chinese] officials.”⁹¹ Other program participants likely have similar caches of knowledge (albeit digital) and can also be prosecuted for their involvement especially when such ties are not disclosed.

Currently, Tesla is suing Guangzhi Cao, a former employee, alleging that he stole and shared with a rival Chinese company self-driving tech worth hundreds of millions of dollars.⁹² According to the complaint, he took more than 300,000 files and directories, and, after taking a job with Xiaopeng Motors, a Chinese electric vehicle startup, deleted 120,000 files from his

85. United States v. Chung, 633 F. Supp. 2d 1134, 1135 (C.D. Cal. 2009).

86. *Id.* at 1138-39 (part of China’s “efforts to acquire scientific information and technology from the West” in order to “improve its military and other industries”).

87. *Id.* at 1139.

88. *Id.*

89. *Id.* at 1138.

90. *Id.* at 1141-42.

91. *Id.* at 1142.

92. Sherisse Pham, *Tesla Is Accusing a Former Employee of Stealing Self-Driving Tech and Giving It to a Chinese Rival*, CNN BUSINESS (Mar. 22, 2019, 6:21 AM), <https://www.cnn.com/2019/03/22/tech/tesla-xiaopeng-motors-lawsuit/index.html>.

work computer and disconnected his cloud account from it.⁹³ While Tesla is suing Cao personally for the theft, it remains to be seen whether Tesla will sue or successfully recover from Xiaopeng Motors (i.e., if they paid for or directed his actions). Interestingly, another employee of Xiaopeng Motors was also arrested and charged with stealing trade secrets from Apple's self-driving project less than a year prior,⁹⁴ denoting a telling, but unsurprising, pattern of illicit conduct.

While these cases demonstrate the prosecution of individuals responsible for stealing research, the ones that follow illustrate the ways that the entities that profit from or commission the theft may also be held liable for their role in stealing the valuable intellectual property from U.S. institutions.

In 2015, T-Mobile USA instituted an action against Huawei Device USA after Huawei employees accessed a "clean room" and stole information about the design of a testing robot.⁹⁵ T-Mobile took multiple precautions, including requiring a non-disclosure agreement (NDA), limiting the number of Huawei employees who could enter the room, and requiring all of those employees to obtain security clearances.⁹⁶ An unauthorized Huawei employee entered the room and was asked to leave, but he snuck back in the next day (with the help of two other employees) and took a number of photographs of the robot on his personal phone.⁹⁷ After being forced to leave the facility, he forwarded the photographs to Huawei China.⁹⁸ Subsequent to that breach, T-Mobile banned all Huawei employees but one, escorted that one employee to the room, and kept him under video surveillance while in the room.⁹⁹ Nevertheless, that employee stole one of four end effectors that were given to him, conducted research on it (including taking measurements), and sent those results to Huawei China.¹⁰⁰ According to the court, "Huawei used the fruits of its theft to build a testing robot" and "now uses that robot to test its own handsets."¹⁰¹

93. *Id.*

94. *Id.*

95. T-Mobile USA, Inc. v. Huawei Device USA, Inc., 115 F. Supp. 3d 1184, 1187-89 (W.D. Wash. 2015).

96. *Id.* at 1189.

97. *Id.* at 1189-90.

98. *Id.* at 1190.

99. *Id.*

100. *Id.*

101. *Id.*

The federal district court held that T-Mobile adequately pleaded multiple causes of action against Huawei USA,¹⁰² many of which are worth discussing here as they may provide other companies recourse if they find themselves in a similar situation. First, T-Mobile adequately pleaded a trade secret claim by establishing the existence of trade secrets, identified those trade secrets, and alleged efforts to keep those trade secrets confidential.¹⁰³ Even though they had disclosed some of the plans for the robot during the patent application process, much of the design was still confidential, evidenced by the fact that Huawei employees attempted to and ultimately did steal the plans instead of simply acquiring them by publicly available means.¹⁰⁴ Next, T-Mobile successfully pleaded a breach of contract claim against Huawei USA based on no less than four agreements to which it was a signatory and which contained clauses protecting T-Mobile's confidential information.¹⁰⁵ One of those was also signed by Huawei USA on behalf of Huawei China.¹⁰⁶ Lastly, even if Huawei China was not contractually bound by such agreements, T-Mobile was able to plead that it tortiously interfered with its business relationships since it knew of such relationships and interfered for an improper purpose.¹⁰⁷ Importantly, the court declined to grant Huawei China's motion to dismiss for lack of personal jurisdiction, since T-Mobile established specific jurisdiction by satisfying the requisite three-part test.¹⁰⁸

These claims present a few avenues companies may pursue in order to combat the loss of their intellectual property, but they can also be utilized as a singular, multifaceted approach to achieve that same result. Furthermore, the inclusion of Huawei China demonstrates that a Chinese entity that is directing a subsidiary or partner corporation is not immune from or out of reach of the U.S. court system. Lastly, it underscores the importance of having robust security measures in place given the lengths the Huawei employees went to in order to obtain the confidential designs for a testing robot.

Actions of direct and contributory liability are yet another avenue for cracking down on intellectual property theft. In *Gucci Am., Inc. v. Frontline Processing Corp.*, the court considered liability for credit card processors

102. *Id.* at 1187.

103. *Id.* at 1191-93.

104. *Id.* at 1191-92.

105. *Id.* at 1194.

106. *Id.*

107. *Id.*

108. *Id.* at 1202-03 (incorporating the traditional purposeful availment, minimum contacts, and reasonableness analysis).

providing services to counterfeiting companies.¹⁰⁹ From 2006 to 2008, Laurette Counterfeiters sold counterfeit Gucci products on TheBagAddiction.com.¹¹⁰ Gucci alleged that one of the defendants, Durango Merchant Services, arranged for web companies that sold the counterfeit products to establish credit card processing services with the other two defendants, Woodforest and Frontline, even though they were aware that the products were knockoffs.¹¹¹ Frontline processed Visa, MasterCard, Discover, and American Express credit card transactions over the two-year period in excess of \$500,000.¹¹² Similarly, Woodforest charged a higher discount rate for replica merchants like Laurette and allegedly processed over \$1 million in transactions for counterfeit items, making over \$30,000 from the fees on those transactions.¹¹³

The Court dismissed Gucci's direct and vicarious liability claims (though those can still be instituted against the companies directly responsible for stealing, making, and/or selling the products), but recognized a cause of action for contributory trademark infringement, noting the Supreme Court's determination that "liability can extend 'beyond those who actually mislabel goods with the mark of another.'"¹¹⁴ If a "manufacturer or distributor . . . continues to supply its product to one whom it knows or has reason to know is engaging in trademark infringement, the manufacturer or distributor is contributorily responsible for any harm done as a result of the deceit."¹¹⁵ That extends to service providers if certain conditions are met.¹¹⁶ Gucci's claim survived a motion to dismiss because it made sufficient factual showings that those conditions were met: two defendants had knowledge of and some control over the directly infringing third party (i.e., Laurette), while the third defendant (Durango) intentionally induced the trademark infringement.¹¹⁷

By extending liability to companies that do not manufacture the goods, but are still complicit in their sale, those companies will be much less likely to tender payment for the sale of such goods, which will make it much harder for counterfeiting companies to survive. Gucci recognized their ability "to

109. Gucci Am., Inc. v. Frontline Processing Corp., 721 F. Supp. 2d 228 (S.D.N.Y. 2010).

110. *Id.* at 239.

111. *Id.* at 237-39.

112. *Id.* at 239.

113. *Id.* at 239-40.

114. *Id.* at 247 (quoting *Inwood Lab., Inc. v. Ives Lab., Inc.*, 456 U.S. 844, 853 (1982)).

115. *Id.* (internal quotation marks omitted).

116. *Id.* at 248.

117. *Id.* at 248-52.

quickly and efficiently transact sales for [c]ounterfeit [p]roducts through their website by enabling customers to use personal credit cards to pay for purchases,”¹¹⁸ maintaining that “[w]ithout credit card processing . . . websites like TheBagAddiction.com could not operate or functionally exist.”¹¹⁹

A number of companies have also filed complaints with the International Trade Commission (ITC) alleging misappropriation of trade secrets, along with other forms of intellectual property theft.¹²⁰ The Tariff Act of 1930 makes unlawful certain “unfair methods of competition and unfair acts in the importation of articles” as well as the importation of articles that violate valid and enforceable U.S. patents, copyrights, trademarks, mask works, and protected designs.¹²¹

Amsted Industries and TianRui Group both manufacture cast steel railway wheels (in Alabama and China, respectively).¹²² After failing to come to an agreement to license two secret processes, TianRui Group hired away nine employees from one of Amsted’s licensees (Datong) who had been trained in one of the processes.¹²³ Even though those employees were informed that they had a duty not to disclose propriety and confidential information (eight of them had also signed confidentiality agreements before they left), Amsted alleged they turned over information and documents revealing details about one of the processes to TianRui Group.¹²⁴ After the ITC “found that the wheels were manufactured using a process that was developed in the United States, protected under domestic trade secret law, and misappropriated abroad,” TianRui challenged the ITC’s “statutory authority . . . to look to conduct occurring in China in the course of a trade secret misappropriation investigation.”¹²⁵ The court, however, determined that Congress did not intend to limit section 337 to only domestic affairs as “importation” is an “inherently international transaction”¹²⁶ and that since the “foreign conduct is used only to establish an element of a claim alleging a domestic injury and seeking a wholly domestic remedy,” the presumption

118. *Id.* at 240.

119. *Id.*

120. *Intellectual Property Developments*, U.S. INT’L TRADE COMM’N, https://www.usitc.gov/intellectual_property.htm (last visited Sept. 14, 2023) (describing common allegations and listing current investigations stemming from submitted complaints).

121. 19 U.S.C. § 1337.

122. *TianRui Grp. Co. v. Int’l Trade Comm’n*, 661 F.3d 1322, 1324 (Fed. Cir. 2011).

123. *Id.*

124. *Id.*

125. *Id.*

126. *Id.* at 1329.

against extraterritoriality was overcome.¹²⁷ And, because the “imported TianRui wheels could directly compete with wheels domestically produced by the trade secret owner,” that competition was “sufficiently related to the investigation to constitute an injury to an ‘industry.’”¹²⁸ Therefore, the court concluded that the ITC “has authority to investigate and grant relief based in part on extraterritorial conduct insofar as it is necessary to protect domestic industries from injuries arising out of unfair competition in the domestic marketplace.”¹²⁹ So, this presents another chance for domestic companies to seek relief from a foreign infringer (as well as deter the infringer from partaking in those activities) even if they try to shield themselves from American law.

Furthermore, in a decision that lends support to both the *T-Mobile USA* and *Amsted Industries* cases, the court in *Enercon GmbH* held that “the phrase ‘sale for importation’ includes the situation in which a contract for goods has been formed,” and that the ITC’s jurisdiction is not limited by a traditional “minimum contacts” analysis.¹³⁰ This further paves the way for successfully recovering from a foreign infringer through breach of contract, the Tariff Act, or both.

Armed with a plethora of statutory provisions, prosecutors can block the theft at its source, while private companies can pursue claims against infringing companies (including their foreign counterparts), receiving an appropriate remedy and disincentivizing their criminal action in the future.

3. Higher Education

In addition, more preventative measures must be taken to ensure those taking research positions are properly vetted. In order to maintain the integrity of academia and the accessibility of research grants and funding, institutions must implement improved due diligence measures, including proper oversight to ensure their staff do not open improper means of communication with China. Some may argue that this will further increase the cost of the hiring process and education in general, but simple disclosure forms and background checks can help to catch at least some of the more blatant instances of divided loyalties. While some faculty are already required to agree to a background check (though it is primarily focused on

127. *Id.*

128. *Id.* at 1337.

129. *Id.* at 1324.

130. *Enercon GmbH v. Int’l Trade Comm’n*, 151 F.3d 1376, 1383 (Fed. Cir. 1998).

educational accuracies and criminal convictions rather than foreign ties), many schools like Princeton had not even required these rudimentary background checks for visiting professors, lecturers, fellows, or researchers.¹³¹ And “[w]hile federal laws require criminal background checks for educators in public school systems . . . , there are no such laws for higher education institutions.”¹³² This currently provides little to no screening of the over 180,000 individuals coming into a school on a visiting basis and who can walk out with valuable research.¹³³ Universities could easily request more information from applicants that would reveal any ties to China. Furthermore, the U.S. government could provide additional background information to universities on applicants and even condition federal funding for universities on requiring disclosure and a certification that the disclosures are actually accurate. More oversight and security measures would pose negligible increases in cost compared to the billions of dollars of intellectual property being siphoned away from these institutions.¹³⁴

B. *International Solutions*

1. *Limited Remedies in Chinese Courts*

As was discussed above, China has an established court system with special adjudicatory bodies dedicated to intellectual property litigation, including for patents and trade secrets within the country’s High People’s Court and Supreme People’s Court.¹³⁵ In recent years, Chinese courts have issued anti-suit injunctions which seek to “block non-Chinese companies from enforcing IP rights in other jurisdictions, meaning Chinese companies cannot be sued for alleged infringements.”¹³⁶ This seems to indicate an effort to force companies to litigate their claims in a Chinese court, which may

131. *Background Checks*, OFF. OF THE DEAN OF FAC., <https://dof.princeton.edu/policies-procedure/policies/background-checks> (last visited Jan. 14, 2023).

132. *Guide to Higher Education Background Checks on Staff & High Profile Positions*, BARADA ASSOCS., <https://baradainc.com/higher-education-background-checks/> (last visited Jan. 15, 2023).

133. *Visiting Professor Demographics and Statistics in the US*, ZIPPPIA, <https://www.zippia.com/visiting-professor-jobs/demographics/> (last visited Jan. 14, 2023).

134. *How Much Does a Background Check Cost?*, APOLLO TECH. (Jan. 23, 2023), <https://www.apollotechnical.com/how-much-does-a-background-check-cost/> (even the most in-depth background checks only cost about one hundred dollars); Huang & Smith, *supra* note 2.

135. *Judicial Administration Structure for IP Disputes: China*, WORLD INTELL. PROP. ORG., <https://www.wipo.int/wipolex/en/judgments/j-admin/cn.html> (last visited Jan. 15, 2023).

136. Edward White, *Chinese Courts Flex Intellectual Property Muscle Across Borders*, FIN. TIMES (June 22, 2015), <https://www.ft.com/content/d4b4e41b-d303-474e-a084-717b948cf2f8>.

discourage many potential litigants from even bringing suit. And the ones that choose to go ahead with a lawsuit face high costs, biased officials, and detrimental outcomes.¹³⁷

So, while U.S. (and other foreign) companies are offered a remedy in Chinese courts, inefficiencies and inconsistencies within their system often cause more difficulties than results. On top of the difficulties and costs involved in securing competent, local counsel,¹³⁸ U.S. companies likely run the risk of exacerbating the theft rather than resolving it. Parker Pen Company brought an action against a Chinese company for selling counterfeit pens, but lost its case because it would not reveal specifics about their product that the court required.¹³⁹ If it had revealed those details, however, it would have handed the Chinese company, and the Chinese government, even more insight as to how to re-engineer their product (which also makes future claims even harder to prove).¹⁴⁰ This creates a Catch-22 that again puts a company in a particularly difficult position. The company must either accept the losses or could elect to receive a short-term remedy in exchange for a long-term detriment. The court in *T-Mobile USA v. Huawei Device USA* specifically recognizes this issue and tailors its approach to avoid unnecessarily exposing sensitive and valuable trade secrets rather than force the American company to hand them over.¹⁴¹ This dichotomy between the court systems underscores the importance of pursuing action in U.S. courts while also pressuring China to amend their own courts to give companies a fighting chance when a remedy at home is not available.

Furthermore, pursuing remedies overseas subjects a company to bias, effectively giving the Chinese company a home-field advantage. Reports of bias and even bribery and solicitation are not uncommon. For example, New Balance experienced corruption in the Chinese court system, reporting that a “Chinese appeals judge requested hundreds of thousands of dollars in exchange for a verdict.”¹⁴² Rather than granting it the injunction it requested, the court ruled against New Balance, allowing the Chinese counterfeiter to have “an unrestricted license to manufacture and distribute unauthorized shoes.”¹⁴³ In the absence of available remedies in the U.S. and fairer

137. See Shane, *supra* note 8, at 153.

138. *Id.*

139. *Id.* at 152.

140. *Id.*

141. *T-Mobile USA, Inc. v. Huawei Device USA, Inc.*, 115 F. Supp. 3d 1184, 1193 (W.D. Wash. 2015).

142. Shane, *supra* note 8, at 153.

143. *Id.*

practices in Chinese courts, this may become the norm rather than the exception. The availability of plentiful avenues for a legal remedy in the U.S. and a system for reducing the theft in the first place therefore remains crucial to maintaining an advantage in the race for economic superiority.

CONCLUSION

For the last few decades, China has been engaged in the wholesale theft of American intellectual property. Having invaded U.S. research institutions and pierced the protective walls of some of the largest American companies, China has reaped the benefits, numbered in the trillions of dollars, while facing almost zero repercussions.

Trade policies and tailored technology controls, both domestic and along with European allies, can pressure China to clean up its deceptive trade practices and to reform its court system. Furthermore, by shoring up areas of potential security breaches and tightening down on prosecutions in American courts, through the use of statutes covering trade secret theft and tax and wire fraud to common law doctrines like breach of contract, the U.S. can at least begin to reclaim its valuable intellectual property and offer its companies the protections they are promised and rightly deserve.

There is likely no singular or one-size-fits-all solution, but utilizing a combination of the proposed solutions in this Note will hopefully offer a way forward that will allow the U.S. to remain at the cutting edge of technological advancement and provide a chance for them to compete with China and the rest of the world in an actual “fair market.”