The Unintended Consequences of Low H-1B Visa Caps: Brain Blocking, Brain Diversion, and Racial Discrimination Against Asian Technology Professionals

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Abstract

American business interests face increasing difficulties as they attempt to compete against global technology-based industries. As the U.S. educational system produces fewer technology workers, many firms look to foreign countries such as India, China, or other Asian countries that have an abundance of skilled professionals. The U.S. Congress created the H-1B visa program in 1990 for educated skilled foreign workers, and manipulated the yearly cap on several occasions. Limits were as high as 195,000 as recently as 2003, but were reduced to 65,000 by 2009. The result of placing a low cap on available H-1B visas places a hardship both on domestic high-technology businesses, which cannot get sufficient quantities of desired workers to fill employment slots, but to the U.S. as well with reduced opportunities to recruit potential educated citizens. An unintended consequence of fewer H-1B visas produces a reduction of overall potential national brain gain optimization that could result from the spillover and agglomeration effects from the exchange of ideas in the marketplace (an effect that I refer to as brain blocking). Further, the brain gain that could have been accrued to the U.S. has been re-routed, either to immigration-friendly countries such as Canada or remains in the Asian professional’s home country if the worker decided to stay there (an effect that I refer to as brain diversion). Further, the imposition of a low H-1B visa cap appears to have similarities to historical race-based immigration restrictions that kept Chinese and other Asian workers out of the domestic workforce in earlier centuries.

This paper looks at the development of H-1B visa public policy, the historical record of legislation to restrict Asian immigrant labor into the U.S., and the unintended consequences that result from low caps.
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1. Introduction

American business interests face increasing difficulties as they attempt to compete against global science and technology (S & T)-based industries.¹ As the U.S. educational system produces fewer technology workers, many firms look to foreign talent pools from India, China, or other Asian countries, that have an abundance of skilled professionals. The importation of foreign skilled professionals, however, has come under intense scrutiny from U.S. government officials, domestic labor interests, and protectionist media commentators that argue hiring foreign skilled workers depresses similar domestic wage levels. However, technology employers counter that many of the skills that they require are not readily found among domestic workers, and those restrictions on the hiring of foreign skilled technology workers causes them to lose out on the best global innovative minds. The resultant lack of available skilled workers ultimately forces domestic technology firms to out-source work to foreign companies, often to the professionals the firm originally intended to import to the U.S. Domestic S & T firms assert that arbitrary limits on H-1B cap levels based on political decisions with no basis

¹ In the relevant literature, the terms science and technology (S & T) and science and engineering (S & E) are often used interchangeably.
in economic demand leads to fewer opportunities for innovation, development of global professional networks, scientific knowledge exchanges, and other agglomeration and spillover effects within their company, industry, and ultimately for the nation.

One way that the U.S. federal government controls the flow of international human intellectual capital has been through the manipulation of H-1B visa levels that allow skilled foreign workers to enter the country for a limited period of time. H-1B visas are the primary mechanism for entry-level positions in the information technology (IT) sector, in disproportionate use compared to other industries.\(^2\) The legislative trend since 2003 has been to reduce and cap the number of H-1B visas granted to allow domestic firms to employ and import foreign technology professionals primarily from South and East Asia.

In this paper, I assert that the U.S. Congress, through its current selective immigration public policy, curtails national competitiveness and innovation by arbitrarily limiting the number of yearly H-1B visas available to domestic S & T firms. Through the reduction of these visa caps, Congress brought about the following three unintended

consequences: (1) the arbitrary cap limits on yearly H-1B visas effectively results in the brain blocking of foreign intellectual capital that reduces the potential of national brain gain resulting from agglomeration and spillover effects such as the creation of new knowledge and social networks and linkages, and thereby fails to optimize the potential of foreign knowledge importation; (2) the arbitrary cap limits on H-1B visas enriches foreign countries with less restrictive labor flow policies and foreign technology firm competitors at the expense of domestic S & T firms and the nation, as skilled foreign professionals are denied work opportunities in the U.S. through the brain diversion of foreign human and intellectual capital; and (3) the arbitrary cap limits on H-1B visas as a tool to control the flow of foreign labor is similar to previous historical racially-motivated political actions against Asian workers in that it is aimed at workers from a particular geographic region, and thus produces de facto discrimination;

2. **Geography, Globalization and the International Flow of Human and Intellectual Capital**

   Governments that seek to control the flow of intellectual capital in and out of their borders must ask several questions to find the best possible solution to their political and
economic needs. What are the factors that drive labor to move from one country to another, and what are historical reasons that workers from certain countries tend to seek out opportunities in other countries? How can governments regulate foreign labor movement and balance domestic interests at the same time? Are some forms of imported labor better for our national interests than others? Might this movement of labor and intellectual capital lead to national security concerns? As in most political decisions, answers to these questions often generate unintended consequences.

Geography, in its rawest form, is about the exercise of political power. This power-knowledge relationship is exhibited through political institutions that seize and discipline space. To maintain its political power, sovereign countries use political power through its legal institutions to regulate flows across its border. These flows may be in several different forms, such as flows of trade, finance, information, or human and intellectual capital. Flows of human and intellectual capital, as an example, involve the movement of labor from one country to another through migration, often due to lack of economic opportunity in a worker’s home country. Of course, migration between some

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4 *Id.* at 11.
countries is freer, or has less friction due to fewer transaction costs, than others due to differing national immigration policies. Countries that have immigration and labor policies that deter free cross-border movement add friction to the flow of human capital through bureaucracies that add time and expense.

The globalization process has evolved into an integrated system of arrangements between nations and multi-national business entities that move large volumes of manufactured goods, services and information over international borders. At its core, globalization is determined by the legal systems of various countries. The process is constrained by the capacity of many countries to eliminate protectionist trade barriers and bring their respective regulatory and investment protection national laws into harmony with those of its trading partners. One of the keys to facilitating the globalization process is the development of agreements within national legal systems that allows for friction-free movement of human and intellectual capital.

However, unlike the trade of goods, American labor law remains a national rather than an international legal issue. Despite entering into many bi-lateral and multi-lateral agreements, American labor law remains primarily a national legal issue.

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international agreements on labor, the U.S. often treats immigration for labor purposes as it would a local labor case within its own borders, an issue that is tried in federal jurisdictions (and increasingly in state and local ones), rather than through processes negotiated between a host country and a worker’s home country.\(^7\) As an example, the State of Arizona’s recent S.B. 1070 bill enables local law enforcement to act in the apprehension of undocumented foreign labor (in this instance, primarily Mexican and South American) after a failure to produce “proof of citizenship” was not negotiated with an undocumented worker’s home country and the home country has little say in the disposition of its citizens in the U.S..\(^8\) On the other hand, a dispute between the U.S. and a trading partner would be resolved in the settlement framework negotiated by the two countries, often using an international set of rules.\(^9\) For the greatest part, the free flow of intellectual capital involved in labor immigration between the U.S. and a foreign country is constrained by the machinery of the federal Congressional legislative body rather than

\(^6\) Id. at 275; see also Lawrence J.C. Ma, *The Chinese Diaspora: Space, Place, Mobility, and Identity*, 1 - 50 (Rowman & Littlefield Pubs. 2003).

\(^7\) The U.S. has been a member of the United Nations’ International Labor Organization (ILO) since 1934, and often signs labor agreements when it enters into trade treaties, such as the North American Agreement on Labor Cooperation (107 Stat. 2057, 32 I.L.M. 1502, entered into effect Jan. 1, 1994) as a part of the multi-lateral North American Free Trade Agreement (NAFTA).

\(^8\) AZ S.B. 1070; see generally Daniel Kanstroom, *Deportation Nation: Outsiders in American History* (Harvard U. Press, 2010).

\(^9\) Most international trade disputes between the U.S. and a trading partner are settled using the Contract for the International Sales of Goods (CISG) and an agreed-upon arbitration institution.
through international labor agreements among trading partners.

The migration of educated Asian S & T workers into the U.S., however, is a different issue than the migration of unskilled laborers. The constant development and creative destruction within the IT industry has been cited as a major factor in keeping the U.S. at the forward edge of globalization, with international intellectual capital migration comprising a driving force.\(^\text{10}\) The U.S. IT industry is not alone in trying to attract educated foreign IT professionals. Germany, the United Kingdom, Australia, Canada, France, the Netherlands, Ireland and New Zealand also have developed expedited special visa to attract foreign educated professionals in “the Battle for the Brains.”\(^\text{11}\) However, the current selective immigration system into the U.S. for foreign S & T workers, the H-1B visa program, is intensely vilified by IT employers, who believe the scheme is out-dated and does not address the realistic economic factors in their industry.\(^\text{12}\) In a reaction to the politics in the reduction of available H-1B visas for educated foreign workers, Intel CEO Craig Barrett remarked in 2007 that “[w]ith


\(^{11}\) Jerdaen Doomernik et al., The Battle for the Brains: Why Immigration Policy is Not Enough to Attract the Highly Skilled, German Marshall Fund, Brussels Forum Paper Series, 2009, at 3.

\(^{12}\) Id at 7.
Congress gridlocked on immigration, it’s clear that the next Silicon Valley will not be in the United States.”

Countries rarely, if ever, compete for unskilled foreign labor.

The extended U.S. experience with globalization, however, does not appear to have reduced the level of racism against Asian technology professionals. The observable, physical traits of being of Asian descent, in itself, allows Americans to ascribe a foreignness to temporary workers or immigrants that solidifies racial stereotypes other minorities do not have to contend.

U.S. immigration policy, primarily through the reduction of available H-1B visas since 2003, serves to restrict the importation of educated foreign technology and knowledge workers. Similar to previous protectionist legislation that eliminated the competition of foreign workers in the domestic economy, the reduction of H-1B visas for U.S. S & T employers effectively removed potential Asian technology professionals from the U.S. marketplace. Although not as racially blatant as prior laws that named

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14 See generally Edwina O’Shea, Missing the Point(s): The Declining Fortunes of Canada’s Economic Immigration Program (The Transatlantic Academy 2009), noting that Canada has a national ‘60/40 split’ policy that attempts to get 60% of its immigrants from educated and entrepreneurial persons, and the remaining 40% from family reunification and refugees.
specific ethnicities to be barred *de jure* (by law), the lowering of H-1B visa caps have the same effect *de facto* (in reality).

3. **Global Competitiveness and Innovation**

Globalization brought about a time-space compression process to remove many of the spatial barriers around the world.\(^{16}\) Invention and innovation in computer technology, global communications systems, long-distance transportation, international cargo movement, and global financial networks made physical location less of a factor in the design, manufacturing, and distribution of new products and services. For example, computer hardware and software design, once found only in Silicon Valley and Boston, now is shared with South and East Asia, and Europe.\(^{17}\) For example, a Dell Computer product may be designed in the U.S. and Taiwan, with programming from India, to be manufactured in Taiwan, then returned to the U.S. for distribution.\(^{18}\) As the often the possessor of first-mover advantages with a new product or innovation previous product receives at least an initial majority of a dominant market share, if not profits, many large

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\(^{16}\) David Harvey, *The Conditions of Postmodernity*, at 232.

\(^{17}\) Pete Engardio and Bruce Einhorn, *Outsourcing Innovation*, in David Mayle (ed.), *Managing Information and Change*, 3rd. ed. (SAGE Publications 2006) at 37.

\(^{18}\) *Id.* at 38.
firms (often multi-national corporations, or MNCs) will invest large sums of money into their Research and Development (R & D) divisions with the intent to innovate the “next big thing” within their industry to capture some of the spillover and agglomeration effects from a first-mover advantage.\(^{19}\) Some patents generated by R & D departments can become the financial building blocks of the entire firm, creating a cash flow that subsidizes future R & D efforts.\(^{20}\) Maximization of shareholder value, one of the main reasons for the existence of a firm, therefore relies on constant invention and innovation within a firm. It should come as no surprise, then, that a firm would want to employ the best and brightest minds within their industry, regardless of their nationality or location.

To accommodate the employment needs of S & T firms, the governments of industrialized countries attempt to create greater competitive advantages for their national economies in the global marketplace through various forms of legislation. These

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\(^{19}\) Peter A. VanderWerf and John F. Mahon, *Meta-Analysis of the Impact of Research Methods on Findings of First-Mover Advantage*, Management Science 43 (11) at 1511; the authors note, however, that market share and profits with new products are often contingent on many various firm and industry-specific factors to generalize across every innovation.

new laws and regulations may be found in diverse forms such as foreign trade policies, education subsidies, tax preferences, codified indigenous industry preferences, development of promotional industry institutions, as well as labor immigration policy.

South Korea, for example, as a newly industrialized country (NIC) in the 1960s and 1970s, constructed an intricate web of legislation designed to limit imports and promote indigenous manufacturing as part of its export-driven national economic development plan.\(^{21}\) Although ultimately talented employees are sought by firms rather than countries, national government policies and its attendant legislation play an important role in the recruitment of educated S & T professionals.\(^{22}\)

A further factor for the need to recruit foreign S & T talent is that the U.S. may not be developing potential employees trained (or at least trainable) in science, technology, engineering and mathematics (known as the STEM subject areas) to meet its


\(^{22}\) See generally David Ricardo, *Principles of Political Economy and Taxation* (G. Bell 1817), for the neoclassical microeconomic view that competitive advantage is based on the corresponding natural resources of countries; and Paul Krugman, *Competitiveness: A Dangerous Obsession*, Foreign Affairs March/April 1994, for a counter-view that firms compete against each other as opposed to nations. According to Ezell and Atkinson, *supra*, at 8, countries at least think that they are competing against each other.
present and future needs. Norman Augustine, in his book *Is America Falling of the Flat Earth?*, compiled a list of potential employment problems for U.S. S & T industries:

1) In 2002, Asian countries combined awarded 636,000 engineering degrees at the university bachelor’s level; European nations awarded 370,000 similar degrees, and the U.S. awarded 122,000;\(^\text{23}\)

2) In total numbers, the U.S. ranks 17\(^{\text{rd}}\) among nations over the last 20 years in bachelor’s degrees in S & E subjects, and 23\(^{\text{rd}}\) overall in mathematics bachelor’s degrees;\(^\text{24}\)

3) The number of Ph.D.s in S & E subjects awarded to U.S. citizens by U.S. universities declined by 23% from 1996 to 2006;\(^\text{25}\)

and

4) Although only 13% of U.S. high school students study calculus, it is a required subject for graduation in Chinese high schools.\(^\text{26}\)

Where the U.S. once was the main destination for S & E talent, other countries have closed the gap. Higher salaries and new opportunities, such as the excitement that comes with an S & T start-up, are no longer found solely in the U.S. Add to the mix the legislative and bureaucratic disincentives to work and/or gain citizenship in the U.S., such as visa uncertainty and long citizenship waits, and domestic S & T firms may find

\(^{23}\) Norman Augustine, *Is America Falling Off the Flat Earth?* (National Academies Press 2006) at 53.

\(^{24}\) Id. at 43.

\(^{25}\) Id.

\(^{26}\) Id. at 30.
recruitment of needed talent difficult and may lose foreign talent that is already here.\textsuperscript{27}

But, as noted by Golama and Hosek, there is also a risk in the over-reliance of

U.S. S & T companies employing foreign S & T professionals, as foreign-born

employees now comprise about 20\% of S & T workers under age 35. \textsuperscript{28} A mass exodus

may endanger the retention of employee and institutional knowledge within U.S. firms.

4. Overview of the H-1B Visa Program

One action to regulate the movement of human capital into the U.S. has been the

creation and manipulation of the non-immigrant H-1B visa designed to cover non-U.S.

H-1B visa quota has been filled by educated technology workers from East and South Asian

countries.\textsuperscript{29} H-1B visa holders from India comprise approximately 38\% of the annual

totals between 1993 and 2003, or roughly 400,000 workers in the last ten years, with

China second in total H-1B visa holders with approximately 40,000 during the same

period of time (see Appendix, Fig. 1).\textsuperscript{30}

\textsuperscript{28} Titus Golama and James Hosek, U.S. Competitiveness in Science and Technology, (RAND Corporation) at 101.
\textsuperscript{29} Approximately 67\% of all H-1B visas are issued to nationals of India; a primary reason for this high percentage is that many of the largest requestors of H-1B visas are U.S. subsidiaries of India-based companies, such as InfoSys, Wipro, Satyam Computer Services, or Tata Consultancy Services.
Once relatively easy to obtain, various political pressures have reduced the allowable quota of non-citizens by two-thirds since 2003. Proponents of the higher H-1B visa levels argue that the increase in the non-citizen workers, which traditionally had been in technical and educational field, add to the wealth of knowledge for American companies, add to the economy inside the country, generate innovation in areas where American workers lacked expertise, and serve as a conduit to allow educated foreigners to seek “green cards,” or permanent status for the right to work in the U.S., and, eventually citizenship.\textsuperscript{31} However, detractors of higher H-1B visa levels offer an opposing claim that multi-national corporations create artificial economic pressures by hiring foreign technology to manufacture increased competition for jobs which in turn leads to a reduction in available jobs and downward pressures on incomes.\textsuperscript{32}

Domestic S & T firms that desire to hire educated foreign professionals from abroad must follow a hiring protocol designed by the U.S. Citizenship and Immigration


\textsuperscript{31} Susan Martin & B. Lindsay Lowell, Competing for Skills: U.S. Immigration Policy Since 1990, 11 L. & Bus. Rev. Am. 387, 390 (2005). The lower cap on H-1B visas have resulted in many skilled technology workers having to return to their home country and wait for the issuance of their “green card” to return to the U.S., which may take between six and ten years.

\textsuperscript{32} O’Shea, supra, at 145-151.
Services (USCIS) to procure the H-1B visa. The USCIS was formed in 2002 as part of the Department of Homeland Security (DHS), which expanded the duties of the former Immigration and Naturalization Services Department (INS). In 2003, the USCIS obtained oversight of the H-1B visa program.

Congress enacted the H-1B visa program in 1990 as an amendment to the McCarran-Walter Act of 1952. The H-1B visa requires an applicant to hold the foreign equivalent of an U.S. bachelors degree or equivalent experience, and the applicant must work in a designated specialty skill area. The H-1B visa is temporary, and it allows the worker to be in status for a six-year term, although the visa may be extended or the worker can begin to apply for permanent residence within one year of expiration. Martin, Chen, and Madamba, however, argue that the imbalance of power between the employer and the H-1B visa program to “serve as a probationary try-out employment for illegal aliens, foreign students, and foreign visitors to determine if they will be sponsored for permanent status.”

34 The McCarran-Walter Act of 1952 codified the prior Immigration and Nationality Act, and separated the categories of immigrant types by labor classification. Under the control of the Department of Labor, immigrant work types could then be restricted or expanded to keep non-citizens from taking jobs away from U.S. citizens or working below the prevailing wage.
immigrant.”  However, the American Competitiveness in the 21st Century Act of 2000 resolved this problem by allowing portability of the visa between jobs and employers as long as the visa was current at the time of the occupational change.  

A suitable U.S. firm must sponsor a prospective H-1B visa applicant. The designated firm must file a Labor Condition Application (LCA) that attests that the applicant will not be displacing a domestic and that there are no current labor disputes involved in the hiring of a foreign worker. The potential employer also must attest that the H-1B worker will be compensated in accordance to one of several salary options outlined by the U.S. Department of Labor.

Congress intended for various safeguards to be included into the H-1B visa process to keep the program from becoming a cheap source of human capital for an employer. An employer of an H-1B visa holder must pay the higher value between the prevailing local wages for workers in that field or the prevailing wages as determined

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40 Id.
by a Department of Labor salary survey. Spouses of H-1B visa holders are also not allowed to work while in the U.S.

The controversy over the H-1B visa program begins with the regulatory mechanism that determines the number of foreign specialty skilled workers to be allowed into the country each year. The initial number of H-1B visas in 1990 was capped at 65,000, a figure that quickly was determined to be inadequate by the needs of business interests. The following year, the American Competitiveness and Workforce Improvement Act of 1998 (ACWIA) allowed the cap to be raised until it reached 195,000 skilled workers per year for 2001 through 2003.\(^\text{41}\) However, in 2004, the USCIS returned its cap level to 65,000, citing the effects of an economic recession.\(^\text{42}\)

The reduction of the H-1B cap in 2004 resulted in many companies unable to bring in technology workers for that year. Many firms devised innovative strategies to aid in the acquisition of new H-1B visas, often filing for as many as possible on the first day of application acceptance. As a consequence, the USCIS filled its H-1B visa quota at

\(^{41}\) The American Competitiveness and Workplace Improvement Act of 1998, Sec. 411 (a), an amendment to 8 U.S.C. 1184, Sect. 214 (g).

\(^{42}\) Foreign nationals that are permanent workers of an U.S.-based multi-national corporation at an overseas location may be brought into the U.S. under the L-1 visa program.
earlier points each year for several years following the introduction of the reduced cap (see Appendix, Fig. 2). In 2007, for example, the USCIS received more H-1B visa applications on the first day of its annual acceptance period than it was allowed to approve for an entire year, and closed the filing window two days later. One unintended consequence of the early filling of H-1B visas on the first few days of the annual application period (April 1 for the following fiscal year) was that it prevented foreign students that recently graduated from American higher institutions of learning under the student visa program from obtaining jobs in the U.S. Thus, many had to return to their home countries to await the approval of future U.S. visa applications, and domestic S & T firms were denied access to that talent pool. A survey of foreign S & E students from 2000 to 2003 by the RAND Corporation found that 73.6 percent of all foreign S & E students of U.S. universities (including 51.1 percent of Ph.D. students) planned to try and remain in the U.S. if possible after graduation, with Asian students comprising a higher percentage than European students.44

In December 2004, Congress enacted the L-1 and H-1B Visa Reform Act in a

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43 Due to the global economic recession of 2008-2009, H-1B visa application were not filed in the numbers of previous years, but all the H-1B visas available for those years were granted. Since 1997, with the exception of 2001, 2002, and 2003, every available H-1B visa has been issued (see Appendix, Fig. 2).
44 Galama and Hosek, supra, at 103.
partial attempt to raise the specialty worker cap.\textsuperscript{45} Under this amendment, an additional 20,000 foreign workers were admitted to work in the U.S., provided that the applicants had at least a master’s degree from an U.S. university. Although this legislation brought some relief to S & T firms seeking foreign talent, this action was not without criticism. S & T firms that supported lifting the cap argued that although this makes it easier to hire foreign nationals educated in the U.S., the reform has essentially narrowed the scope of additional employment. Many of the jobs that employers sought to fill did not require that level of education. Further, technology firms argued that an advanced technical degree from a foreign university had become the equivalent to that found in the U.S.\textsuperscript{46}

In 2006, a bipartisan attempt to raise the H-1B visa limit to 115,000 per year was promoted by Senators John McCain (R-AZ) and Edward Kennedy (D-MA) as part of the Comprehensive Immigration Reform Act.\textsuperscript{47} This bill did progress out of its Senate committee. Many observers blame a protectionist political climate deriving from that year’s election year and a resultant pandering to large block of organized labor votes.\textsuperscript{48}

\textsuperscript{45} The L-1 and H-1B Visa Reform Act was an amendment to the Omnibus Appropriations Act for Fiscal Year 2005, P.L. 108-447.
\textsuperscript{47} The Comprehensive Immigration Reform Act of 2006; one of the proposals in the Act would have created a special “blue card” for guest workers.
Large multi-national domestic businesses did not fail to acknowledge that H-1B visa reform was a topic that many politicians did not want to address going into the 2008 election year. At a Silicon Valley Tech Policy Summit function in March 2008, Xerox CEO Anne Mulcahy reflected on the year’s immigration issue and the reluctance for politicians to get involved, by noting that “there’s a perception that global trade and big business is leading to losses in the economy, and politicians don’t want to get onto the wrong side of that argument.”

5. The Politics of International Labor Migration

Political pressures from both business and labor interests fuel much of the discussion about H-1B visa quota levels. In recent years, Congress introduced legislation to both increase and reduce the H-1B visa quota have been introduced in recent sessions. Neither side has been successful.

5.1. Proponents of Low H-1B Visa Caps

Proponents for low H-1B visa caps argue that the H-1B visa is a government

subsidy for U.S.-based companies to import cheap labor into the domestic market at levels below prevailing U.S. wages to increase corporate profits.\textsuperscript{50} Many activists against expanding the H-1B visa program claim that domestic corporations do not comply with the wage safeguards that keep employers from paying wages lower than the prevailing wage in an area.\textsuperscript{51}

Some critical analysts believe that some domestic firms that are subsidiaries of foreign companies are engaged in a practice termed “body shopping.”\textsuperscript{52} Body shopping may occur when a foreign company uses its reserve of potential foreign workers to underbid on a contract, then bring in foreign workers under the H-1B program and fulfill the contract paying substandard wages.\textsuperscript{53} Companies that body shop have also been accused of bringing in foreign workers even when there is no current work to be done, and paying the H-1B visa holders a subsistence wage (a status known as “benching”) until work can be found that will displace American workers.\textsuperscript{54} Analysts such as


\textsuperscript{51} \textit{Id.}

\textsuperscript{52} For an extensive review of articles on the alleged abuses of the H-1B visa program, see in general the Center for Immigration Studies website at http://www.cis.org.

\textsuperscript{53} Goodsell, \textit{supra}, at 168.

\textsuperscript{54} According to the USCIS, 7 of the top 10 sponsors of H-1B visas are U.S. subsidiaries of Indian-based firms.
Todd Goodsell argue that this accusation does not make any economic sense, as a domestic sponsoring firm must pay at least $16,000 in associated fees to the government to get the H-1B visa approved, and therefore benching a technology worker, let alone several of them at the same time, would be a very expensive proposition.\(^{55}\)

Opposing research, however, refutes claims that IT industry is not replacing domestic technology workers with lower-wage ones from abroad. In one study of H-1B visa holders, John Miano reviewed the Labor Classification Standards for over 300,000 H-1B holders in the country in 2005, and stated that his results found that very few H-1B holders fulfilled the definition requirement of being highly-skilled, with 56% of the H-1B visa holders being classified at the lowest skill level of Level Programmer / Computer Operator.\(^{56}\) Miano further argued that his results showed that 90% of domestic employers understated the prevailing wages of domestic workers in the field using figures that are not permitted under the Department of Labor H-1B standards, allowing the company to pay a lower pay rate to the H-1B visa holder, at an average of $16,000 less than the prevailing wage requirements stated by the Department of Labor Standards.\(^{57}\)

\(^{55}\) Goodsell, \textit{supra}, at 168. \\
Miano did find several instances where other apparent abuses occurring in the H-1B visa process that were not caught by the Department of Labor designated approval procedure. Among these abuses were applications for computer programmers made by enterprises not normally associated with technology work, often small minority businesses such as stores and restaurants; some small businesses being granted many more visas than people they employed. Also, in some cases, some imported Asian S & T workers were found to be paid extremely low wages in some small businesses, a phenomenon that has brought about the term “Techno-Coolies” to describe the similarity between Asian computer programmers working in sweatshop conditions and Chinese laborers imported for strenuous physical conditions in the western U.S. during the railroad construction era of the mid-1800s.\textsuperscript{58}

However, Miano’s findings only represented a small part of the total LCAs submitted during his period of study. It is also a point of issue that the Congressional Research Office, nor any other non-partisan operation, has completed a study that has confirmed Miano’s findings that H-1B visa holders are brought in from foreign countries.

\textsuperscript{57} However, it is significant to note that this research was not published in a peer-reviewed journal.\
\textsuperscript{58} Miano, supra, at 28; Goodsell, supra, at 164.
to compete for lower wages against American skilled professionals. Despite the quote by populist television political commentator Lou Dobbs that “it is well-documented that H-1B visa holders take American jobs,” there is little corroborating evidence that exists in the relevant academic literature.\(^59\)

Several political commentators, including aforementioned Lou Dobbs, state that Chinese H-1B visa holders should be especially scrutinized because of China’s alleged attempts to spy on U.S. military installations to steal technology secrets.\(^60\) As an example of this unsubstantiated paranoia, Larry Wortzel of the Heritage Foundation wrote:

“‘There are some 700,000 visitors to the United States from China each year, including 135,000 students. It is impossible to know if these people are here to study and research or if they are here to steal our secrets. The sheer numbers defy complete vetting or counterintelligence coverage.’”\(^61\)

Television commentators are not alone with motives that ethnic Chinese are trying to steal state technology secrets. Wen Ho Lee, a Taiwan-born naturalized citizen who worked at a nuclear research facility, suffered through five years of attempts by federal prosecutors to link him to a plot to pass national security secrets to the Chinese

\(^{59}\) Lou Dobbs Tonight transcript, aired April 3, 2007 on CNN.  
\(^{61}\) Larry M. Wortzel, Sources and Methods of Foreign Nationals Engaged in Economic and Military Espionage, (Heritage Foundation 2005).
government. A special attempt was made to emphasize Lee’s ethnicity during his
prosecution and in government releases to the media. Lee eventually was imprisoned
for nine months on the much lesser charge of mishandling classified information, a much
lesser charge than spying for a foreign government, after millions of dollars was spent by
the government on his prosecution.

The Internet is also filled with anecdotal stories about displaced domestic workers
losing their jobs to H-1B visa imported workers. However, the only national
government comprehensive study on H-1B visas by the National Research Council
found only that the effect is “difficult to estimate with any confidence.” A similar study
by Lowell stated that if there was any repression of labor wages, it is minimal and does
not appear in the collected data.

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62 Gee (2003-2004), supra, at 136. Gee noted that similar breaches by non-Chinese persons working in
similar positions of security did not receive the same level of scrutiny; see also Spencer K. Turnbull,
Comment: Wen Ho Lee and the Consequences of Enduring Asian American Stereotypes, 7 Asian Pac. Am.
L.J. 72, 75 (2001).
63 Gee (2003-2004), supra, at 137; Gee described, among other interrogations, that for the years of his
prosecution Lee was subject to threats of jail and a death scenario similar to that of Julius and Ethel
Rosenberg during the Communist “Red Scare” era, despite taking numerous polygraphs and allowing
himself to be interrogated by FBI agents – around a thousand, according to Gee – without the benefit of
counsel.
64 As an example, see “H-1B: Rhymes with Slavery,” available at
65 National Resource Council, Building a Workforce for the Information Economy (National Academy
66 B. Lisa Lowell, Skilled Temporary and Permanent Immigrants in the United States, Population Research
There have been no successful legal challenges to domestic companies using H-1B visa holders to replace domestic workers to reduce labor costs in violation of Department of Labor regulations as of 2010. In 2004, Guy Santiglia filed suit with the U.S. Department of Labor claiming that his employer, Sun Microsystems, Inc., was systematically laying off domestic computer technologists and programmers (including him) and replacing them with unqualified H-1B visa holders at lower wages.\textsuperscript{67} The Administrative Review Board of the Department of Labor found Sun Microsystems having only minor violations, and none in relation to employing H-1B visa holders.\textsuperscript{68} Sun Microsystems was not required to retain excess domestic employees from certain technology areas and retrain them to fill current openings instead of recruiting H-1B visa holders that had skills and experience in new fields of the company’s business.

\textbf{5.2 Proponents of Expanded H-1B Visa Caps}

Many corporations are insistent that without expanded H-1B visa caps, their firms cannot operate in a competitive fashion, and must take other measures to ensure a

\textsuperscript{67} Guy Santiglia v. Sun Microsystems, Inc., ARB Case No. 03-076, decided July 29, 2005.
\textsuperscript{68} Sun Microsystems was ordered to change its posting practices for job openings; it had posted openings in the required amount of places, but was found that one posting was in the wrong area. The judge ordered the company to post job openings in the correct area, but as the error was not consequential or intended to deceive, the company was not fined for this oversight.
competitive advantage. Anne Mulcahy, the CEO of Xerox, stated at a Silicon Valley Tech Policy Summit gathering in March of 2008:

“You have to raise the quotas. It gets worse each year because our needs are greater. We have just been stuck on inaction in this country. It’s not pros or cons. It’s inaction, it’s the political polarization in this country that has made for extraordinary problems. Having access to international talent is a big part of what has fueled our technology industry. The statistics about new companies that have started up by founders who came from outside the country . . . I mean, this is just dumb.”69

Jonathan Schwartz, CEO of Sun Microsystems, added:

“We’re not dumb. You put a quota here, we’ll go hire there.”70

As one example, Google employs approximately 6,000 technology workers worldwide, and 8% of these are hired under the H-1B visa program. Many of these S & T professionals were recruited directly from U.S. universities and are seeking permanent residency status.71

In an age of multi-national S & T companies that have access to technology that allows the instant flow of communication across national borders, many potential

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70 Id.
domestic S & T employers have sent work off-shore rather than hire unqualified or untrained local workers.

Many studies cite the benefits of the economic activity of H-1B workers on the U.S. economy. The National Foundation for American Policy (NFAP) issued a policy brief that outlined several of the benefits related to H-1B visas and domestic job creation. Among the study’s findings were:

1) that for every H-1B visa requested, U.S. technology companies created 5 jobs;

2) for technology companies with less than 5,000 employees, for every H-1B visa requested, there was an increase of employment of 7.5 jobs;

3) as the hiring of H-1B visa workers and domestic workers are specific to the business opportunities of the firm, the addition of H-1B visa workers is complimentary to the hiring of domestic workers and does not displace them;

4) Even in periods of decline in technology hiring, domestic workers are still hired over H-1B visa workers by 7 to 1 in firms over 5,000 employees, and 5 to 1 in firms with less than 5,000 employees;

5) Overall employment of H-1B visa holders in firms declined in companies that had declining sales, refuting the argument that employers hire H-1B visa holders to save money;

and
6) 74% of firms responding to the NFAP survey thought that the inability to fill a technical position because of a lack of H-1B visas made their company uncompetitive against foreign competition.\(^\text{72}\)

The NFAP study also refutes the figures of studies made by Hira\(^\text{73}\) that H-1B visa workers earn less than domestic workers, and instead earn 22% more than domestic workers with similar skills.\(^\text{74}\)

6. **The Unintended Consequences of Low H-1B Visa Caps**

The Law of Unintended Consequences is an economic term that describes unforeseen effects that arise of intervention into a complex system.\(^\text{75}\) On occasion, the unintended consequence may be positive (such as Adam Smith’s invisible hand), but usually are negative and are the result of often well-intended legislation and regulation. The negative effects are often not readily apparent to observers (or “unseen,” to use economist Frédéric Bastiat’s term), but resulted in actions and redistributions of resources not intended by the original actors.\(^\text{76}\)

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\(^\text{74}\) Goodsell, *supra*, at 152.


as the result of misguided legislation and regulation include protectionist import quotas that may benefit a certain industry, but increase overall costs to consumers of products that use those resource. Often cited examples include protectionist steel import tariffs that reduced industry competition but raised consumer prices in products that used steel, and wage and hiring legislation that reduced the number of available jobs for the classes that the legislation intended to help.

It is doubtful that any member of Congress truly desires the nation to suffer harm from the unintended consequences that result from well-intended but ultimately misguided selective immigration legislation. However, as the nation no longer supplies a well of domestic skilled S & T workers to meet the needs of its firms, legislation that prevents foreign workers that are able to meet those employment requirements need to be encouraged to come to the U.S., not to supplement competitors.

In the following section, I coined two phrases to describe the unintended consequences that result from low H-1B visa caps to add to the relevant literature on international labor migration and knowledge transfer: *brain blocking* and *brain diversion.*

It is my contention that in order for brain gain to reach its optimal value in the U.S. that
legislative action must be taken in some form to reduce or eliminate these unintended
consequences either through the elimination of H-1B visa caps or through new legislation
that adjusts the cap according to the requirements of the S & T industry. Not to do so
will increase the loss of S & T jobs at their spillover benefits as domestic companies
continue to set up foreign subsidiaries that can access domestic work electronically, or
the domestic industry will lose its competitiveness to foreign firms with enhanced
expertise from U.S.-university-trained workers as a result of brain recirculation.

6.1 Brain Blocking

A country that receives educated immigrants who add to its national intellectual
storehouse of knowledge is said to benefit from brain gain. Some studies show that
the H-1B visa program adds to the brain gain of technology knowledge in the U.S. In
his article, Sami Mahroum stated that many skilled S & T professionals seek to work in
the core of their profession, wherever it is, and that region benefits from a greater than

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Nations also benefit from brain gain when skilled workers locate to their country to work, especially when they did not have to pay for the education of that individual. However, Mahroum’s study represents brain gain as the inflow of educated foreign technology workers in general. By placing a cap on H-1B visa for foreign technology workers, U.S. immigration policy, in effect, constructs a figurative ceiling on brain gain into the country.

As H-1B visas are tightened by partisan legislative action and other anti-immigration acts, Congress engages in the restrictive action of brain blocking that turns away possibilities for additional knowledge gains for the country. A H-1B S & T worker applicant that is turned away from the U.S. because of a lack of H-1B visas does not have the opportunity to share knowledge, create professional networks, or participate in any of the agglomeration and spillover effects that drive knowledge clusters such as Silicon Valley.

I define the term brain blocking as any act, whether intentional or non-intentional,

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79 Id.
80 Mahroum also noted that the U.S. in one of the few countries that does not have expedited citizenship for highly skilled workers. In the example of Denmark, a skilled technology worker can obtain citizenship after one year of residency.
by either an institutional or non-institutional entity that represses potential optimization of intellectual capital of an organization. A brain blocking act may be either overt or passive. The act of restricting the entry of educated foreigners, obviously, is an intentional act by a branch of a federal government that prevents the benefits of exchanging ideas, building of networks, or other agglomeration or spillover effects with those persons, and reduces potential future effects such as innovation within that field of knowledge. Other non-institutional acts may also result in brain blocking, such as the targeting of immigrants for violence by a criminal element that through fear or intimidating would result in the reduction of the inflow of foreign human capital.

There are concrete examples of S & T jobs leaving the U.S. as a result of brain blocking from H-1B visa cap reduction. Microsoft, the largest historical requester of H1-B visas, in partial response to the lack of sufficient H-1B visa availability, announced in 2007 that it would build a new software development center in Vancouver, Canada, 150 miles from its Redmond, Washington headquarters. As of 2010, the Microsoft

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Vancouver location employed approximately 1,000 software developers, most of which were denied an H-1B visa into the U.S. Another large software developer, Oracle, has also opened a software development center in Vancouver.\textsuperscript{83} The majority of these high-tech software developers are from China and India.

The brain diversion effect need not be as a result intentional acts such as misguided legislation or regulation, but may be stem from other active or passive acts as well. Bandana Purkayastha, in her study on Asian Indian immigrant women in the U.S., found that many Indian women, even in “high skills” occupations such as a medical doctor, encountered barriers such as discrimination, occupational segregation, and reduced upward-mobility opportunities as the result of being “foreign.”\textsuperscript{84} To the extent that these and similar actions limit the optimization of the practice of acquired skills and knowledge acquisition, the establishment of new professional and social networks, or other potential ways and methods that prevent brain gain in a society, those actions may be termed brain blocking actions.


\textsuperscript{84} Bandana Purkeyastha, \textit{Skilled Migration and Cumulative Disadvantage: The Case of Highly Qualified Asian Immigrant Women in the U.S.}, Geoforum 36 at 191.
6.2 Brain Diversion

Other recent actions, often under the guise of U.S. security reforms in the wake of the 9/11 disaster, have also added to the effect of brain blocking. Anecdotal evidence, at least, suggests that due to added paperwork, foreign universities that used to send the bulk of their students to U.S. universities, re-routed future students to other countries instead of remaining in the home country. This effect, through the action of a formal immigration policy that re-directs potential brain gain to another, more inviting country, may be referred to as brain diversion. Foreign attendees of U.S. academic conferences also faced heightened restrictions, or in some cases were denied temporary visas. As one example, Ernesto Priego, a citizen of Mexico and a Ph.D. candidate at the University College in London, was refused a visa to address the International Comic Art Forum in Washington, D.C., in October of 2007.

I define the term brain diversion as any act, whether intentional or unintentional, by either an institution or a non-institutional entity that results in human and intellectual


capital not residing in its first choice of location. As an example, a recent citizen of India who is a graduate of a U.S. university, and who wishes to remain in the U.S. but needs to find work before he qualifies for a U.S. work permit, and thus goes to Toronto for immediate employment adds to Canada’s national skill level as a result of brain diversion. The knowledge that he has gained through his or her education cannot be put to immediate use in the U.S., so the knowledge is diverted (or at least delayed) from adding to the U.S. national storehouse of knowledge. As knowledge is not solely located in individuals, but is also embedded in firms and industries, those firms and industries are not able to move closer to optimal knowledge levels.  

The reverse of brain gain is brain drain, and can be considered to be a result from the unintended effect from brain blocking. Many foreign countries that were developing a software industry, especially India, lost many of its best and brightest engineers and software developers to the U.S. in the 1990s. The Chinese software industry, however, exhibited fewer losses of human capital to the U.S., as the country

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88 See Ezell and Atkinson, supra, at 6.
developed its own internal Internet industry. Chinese workers that entered the U.S. on the H-1B visa program often preferred to return to China, citing their preference for lower cost-of-living areas and a return to the traditional extended family. The brain circulation and re-circulation of students and workers that move back and forth between countries in a free flow of information only adds to the knowledge base of the country that person is at work. The U.S., under this theory, loses a substantial amount of knowledge capital through the loss of U.S.-educated foreign students and workers by refusing to address the brain blocking collateral damage from fewer H-1B visas as fewer Chinese technology professionals will have the opportunity to engage in brain circulation and re-circulation.

Brain diversion may also have unintended consequences for potential brain donor countries, as U.S. immigration policy restrictions will reduce potential knowledge gains that can be returned to a home country after the H-1B visa expires, or the technology worker chooses to return. Work experience under the H-1B visa program benefits the home country of a skilled technology worker once they return from the U.S.

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90 Id.
91 Mahroum, supra, at 223.
A survey by Commander, Chanda, and Winters found that between 30 and 40% of higher-level employees in Indian software companies had once worked in a developed country, and returned with greater skills than they had left.\textsuperscript{92}

Brain diversion may also result in fewer S & T jobs overall, as new technology firms may not be created at all. H-1B visa workers that eventually become U.S. citizens regularly start technology companies on their own as they develop local networks of suppliers and potential customers. These start-ups further contribute to the U.S. economy with additional gains in domestic innovation and job creation. AnnaLee Saxenian found that 30\% of Silicon Valley companies in the 1990s were headed by ethnic Indian or Chinese engineers. Her research also estimated that these companies added an estimated $20 billion yearly to the U.S. economy and accounted for 70,000 high-technology jobs.\textsuperscript{93}

6.3 Reviving Historical Legislative Discrimination Against Asian Labor

The selective legislative restriction of immigrant workers into the U.S. is not new.


\textsuperscript{93} Saxenian, \textit{supra}, at 238.
American legal history cites a long list of discriminatory legislation against Asians, and especially directed at ethnic Chinese, often under the guise of domestic union labor protections that promoted both racial and nationalistic exceptionalism. ⁹⁴ A look at historical legislative and judicial actions

As an early example of discriminatory action against non-white foreigners, the original writers of the U.S. Constitution in 1787 included a built-in racial hierarchy in the text that allowed, as national policy, three-fifths personhood for slave labor. ⁹⁵ Soon after, the Naturalization Law of 1790 restricted naturalized citizenship to white persons of European descent. ⁹⁶

Other early expressions of these exclusionary principles, especially against Chinese, extended to some of the nation’s Founding Fathers. Benjamin Franklin, for one, wrote that the English were the “principle Body of White People,” and that by refusing to admit “Tawneys” into the country, there would be more opportunity for the “Whites”. ⁹⁷

⁹⁵ U.S. Constitution, Art. 1, § 2, ¶ 3.
⁹⁶ Originally enacted as the Naturalization Act of March 26, 1790, Stat. 103; the exclusion of non-white naturalized citizens was not officially taken off the law books until the passage of the Immigration and Nationality Act of 1952, but the enactment of the Fourteenth Amendment in 1868
⁹⁷ Benjamin Franklin, *Observations: Concerning the Increase of Mankind, Peopling of Countries, Etc.*, in A. H. Smyth, ed., *The Writings of Ben Franklin* (MacMillan Books 1970) at 63, 72, 76, 78; “Tawneys” was the English term for Chinese in the mid- and late-1700s. Franklin’s choice for exclusion was also not limited to Chinese: “Why increase the Sons of Africa, by planting them in America, where we have so fair an opportunity, by excluding all Blacks and Tawneys, of increasing the lovely Whites?”
The initial wave of Chinese laborers hired by American business interests came through Hawaii in the early 1800s to fill the void of workers on sugar plantations. As the U.S. completed its continental westward expansion at the end of the Mexican-American War, hundreds of thousands of Chinese were recruited to work in California gold mines and aid in building railroads. The Chinese were ethnically, linguistically, and culturally distinct from other immigrant groups that had entered the U.S. at that time. Much of the Chinese population was de facto segregated into designated parts of cities commonly known as Chinatowns. Most Chinese could never acquire the requisite knowledge to pass the ever-changing citizenship test, necessary to achieve the status of becoming white and thus able to exercise the full bundle of rights available to the regular U.S. citizen.

Voting rights for ethnic Chinese that had become U.S. citizens through the enactment of the Fourteenth Amendment in 1868 were routinely ignored, which also

100 Chiu, supra, at 1061. Many courts determined that the placement of the word “white” in the naturalization laws excluded all non-Caucasians. This was eventually overturned by In re Ah Yup, 1 F. Cas. 223 (C.C.D. Cal. 1878).
denied them the organizational political power to resist further restrictive legislation.\textsuperscript{101}

As later noted by U.S. Supreme Court Justice Harlan Stone, in \textit{U.S. v. Carolene Products Co.}, Chinese communities had become a “discrete and insular community . . . against whom prejudice tended seriously to curtail the operation of political processes ordinarily to be relied upon to protect minorities.”\textsuperscript{102}

Congress enacted several national laws to restrict Chinese immigration in the late 1800s, often in the guise of reducing organized crime or upholding American morals.\textsuperscript{103}

The culmination of American institutionalized racism resulted in the Congressional passage of the Chinese Exclusion Act of 1882 (hereafter, the Act).\textsuperscript{104} The Act became the first national legislation to specifically exclude a particular race or ethnic group from entering U.S. borders.\textsuperscript{105}

As conciliation to the emerging power of labor unions, Congress implemented the Act to ban the importation of Chinese laborers for ten years.\textsuperscript{106} Chinese women,

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{101} Chiu, \textit{supra}, at 1062, 1066.
\item \textsuperscript{102} United States v. Carolene Products Co., 304 U.S. 144, 152 (1938).
\item \textsuperscript{103} Examples of these laws were the Act of March 18, 1870, ch. 230, 1870 Cal. Stat. 330, that prohibited the importation of Chinese women for prostitution, and the Act of March 3, 1875, that prohibited Chinese women to be brought to the country for lewd and immoral purposes.
\item \textsuperscript{104} Chinese Exclusion Act, ch. 126, 22 Stat. 58 (1882); repealed 1943. A similar Exclusion Act was passed in Canada in 1923.
\item \textsuperscript{105} Harvey Gee, \textit{From Bakke to Grutter and Beyond: Asian Americans and Diversity in America}, 9 Tex. J. on C.L. & C.R. 129, 135 (2003-2004).
\item \textsuperscript{106} Trucios-Haynes, \textit{supra}, at 971.
\end{itemize}
\end{footnotesize}
although not laborers, were also *de jure* banned under the Act. In the holding of *In Re Ah Moy* (better known as the *Case of Chinese Wife*), a California court ruled that Chinese women took the status of their husbands, relegating Chinese women married to laborers ineligible to immigrate to the U.S.\(^\text{107}\)

After the expiration of its initial ten-year term, the Act was successfully renewed several times, and indefinitely extended in 1902.\(^\text{108}\) The Supreme Court affirmed the constitutionality of these extensions in *Fong Yue Ting v. United States*, stating that under the maxims of international law, every sovereign nation had the inalienable right to include or exclude immigrants as it saw fit.\(^\text{109}\)

Children of Chinese parentage and born in the U.S. were subject to similar discrimination and denied citizenship and other rights given to children of other nationalities, as interpreted by the courts considering naturalization of immigrants during this time. However, the 1898 U.S. Supreme Court case of *Wong Kim Ark* interpreted the recently-passed 14\(^\text{th}\) Amendment as guaranteeing birthright citizenship to those of Chinese descent that were born in the U.S.\(^\text{110}\) Prior to this decision, Chinese persons who

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\(^{107}\) *In Re Ah Moy*, 21 F. 785 (C.C.D. Cal. 1884).


\(^{109}\) *Fong Yue Ting v. United States*, 149 U.S. 698.

\(^{110}\) *United States v. Wong Kim Ark*, 169 U.S. 649 (1898). Born in San Francisco to non-citizen Chinese laborers in 1873, Wong Kim Ark returned to China at age 17 and later successfully returned. After a second visit to China, he was refused readmittance due to the implementation of the Chinese Exclusion Laws.
had been born on U.S. soil were denied re-entry (and often detained by the U.S.
government and subject to deportation) into the country under the Exclusion Acts. 111

Selective exclusionist legislation was not limited to Chinese laborers. In 1907, a
similar law was passed by Congress to include Japanese laborers. 112 However, Japan, a
more powerful economic power than China at the time, was able to negotiate a separate
“Gentlemen’s Agreement” for more wealthy Japanese citizens for entry into the U.S. 113
The 1917 Immigration Act disallowed the importation of labor from any country in a
“barred zone,” which included any Asian country not already covered by exclusionary
legislation. 114 Under the Tydings-McDuffie Act of 1934, citizens of the Philippines were
allowed fifty immigrants into the U.S. per year, ostensibly as retribution for colonial U.S.
acts within the country. 115 Ethnographic maps were developed to aid in the placement of
whether a potential immigrant was from a banned Oriental country (see Fig. 4). 116

Critical race theory scholars offer that racial discrimination is a continual social
and legal problem that renders the notion of a “color-blind” society lacking a perspective

111 Daniel Kanstroom, Deportation Nation: Outsiders in American History (Harvard University Press 2010)
at 16.
112 Sucheng Chan, Asian Americans: An Interpretive History (Twayne Pub. 1991) at 28.
113 Paul A. Kramer, The Blood of Government: Race, Empire, the United States, & the Philippines (U. of
114 Chiu, supra, at 1067; see also Immigration Act of 1917, ch. 29, 39 Stat. 874; repealed 1952. A small
exception to the Immigration Act of 1917 was an allotment of 50 Philippine citizens per year was allowed
to immigrate to the U.S.
115 Kramer, supra, at 392.
116 The original term “Oriental” was used in the Exclusion Laws to designate which foreigners to keep out
of the U.S. originally included citizens of the Philippines; at least one Filipino was able to circumvent this
designation by successfully arguing that he was of Malay ethnicity.
of reality.\textsuperscript{117} Parallels to the current reduction of H-1B visas, while not discriminatory to Chinese and Asian technology workers as being named specifically in particular, as the majority of H-1B visa applicants are Asian, there are \textit{de facto} limits as the majority of the workers attempting to gain access to the U.S. are from Asian countries.

7. \textbf{Trends for Asian H-1B Technology Workers}

It becomes apparent that detractors for the continuance and expansion of the H-1B visa quota cannot make an economic argument that domestic technology workers are collectively harmed by S & T workers that hold H-1B visas, nor can statistical or other proof outside subjective and anecdotal evidence that indicates that H-1B visa workers displace American workers. Protectionist labor practices, especially in high technology areas, have served to “asphyxiate the U.S. economy”.\textsuperscript{118} In the absence of economic data that support economic protectionism, exclusionist principles appear to be based on the otherness of the foreign workers that are ethnically, linguistically and culturally distinct from the domestic worker.

However, profit is often one way for protectionists to see past racial and ethnic


\textsuperscript{118} Sanjay Jain, \textit{Looking to the North While Playing Doctor: Solving the H-1B Visa Problem While Following Canada’s Lead}, 10 Minn. J. Global Trade 433, 438 (2001).
lines. As in the boom years of the Internet revolution, many of the same interests that did not protest the tripling of technology workers are now calling for reduced H-1B visas for Chinese technology workers based on domestic worker displacement and fears of technology theft. The brain blocking and brain diversion effects of current U.S. immigration legislation and policy that results in the reduction of human and knowledge capital in the U.S may lead to the loss of one of its greatest assets: ideas. As put by business writer Peter Coy, “the most important resource will be a person’s mind because the scarcest commodity will be good ideas.”

Attracting talented foreign workers is no longer the sole domain of the United States. According to Richard Florida, in order to secure the future, the U.S. needs to secure the best and brightest from all over the world. The U.S. is not alone in the need to recruit what Florida terms the “creative class” and “creative professionals,” classes that will be needed to realize the necessity of innovation and creative deconstruction to progress in the future. In 2002, primarily due to an increase in the amount of paperwork that accompanied new security regulations in the U.S. after 9/11, the UK, Australia and

Germany each had gains in foreign student enrollment while the U.S. encountered a
decrease. Competition not only comes from between U.S. firms, but now may come from
the home country of the technology worker. Countries such as India and Taiwan have
developed significant technology industries that attract educated local talent that
previously would have sought employment in the U.S.\textsuperscript{121}

The U.S. economy will also require additional graduates in S & E fields.

Historically, supplementation of deficient American S & T labor pools have come from
increased immigration allowances.\textsuperscript{122} In 2007, U.S. universities awarded over half the
graduate degrees in STEM subjects to foreign students.\textsuperscript{123}

8. **Recommendation to Adopt the Canadian Model**

Countries that restrict educated immigrant workers will find it difficult to compete
in a global marketplace if there is an institutional policy in place that promotes brain
blocking. Not only does brain blocking reduce the potential maximization of knowledge
in the U.S. by restricting foreign high-tech workers through a restrictive H-1B visa

\textsuperscript{122} Ezell and Atkinson, *supra*, at 16.
\textsuperscript{123} *Id.* at 729.
scheme, but brain blocking also serves to enrich immigrant-friendly countries and immigrant home countries through brain diversion. The U.S., therefore, should seek to modify (if not eliminate) policies that deter the importation of knowledge workers into the country. Often this means developing a political will to deflect the desires of special interest groups.

In his article, Jain notes that despite the protestation of Congress that the H-1B visa quota reduction is to protect the national interests, it is a concession to the lobbying power of union labor special interests such as the AFL-CIO labor union.\(^{124}\) Although it is often easier said than done, some method to remove the political component from the foreign worker visa system is necessary to remove uncertainty to employers and workers and address the true needs of the domestic S & T industry. The whipsawing of quotas over the past decade caused U.S. businesses to lose out on employing some of the best foreign S & E students graduating from U.S. institutions. Many have had to return to their home countries as their student visa have expired and H-1B visas are not available, causing many to seek employment with competitors to U.S. S & T firms, if not found.

\(^{124}\) Jain, supra, at 433; Lobbying for H-1B visas is not the sole domain of organized labor; Microsoft, Intel, Motorola, Sun Microsystems, and Texas Instruments also have formed a lobbying arm called American Business for Legal Immigration (ABLI).
start-ups to compete against U.S. businesses.

Jain further argues that the U.S. should look towards Canada as an example on how to attract and retain guest workers.\textsuperscript{125} Canada’s domestic population is in decline, and relies on immigration to remain competitive. The yearly national Immigration Plan is presented to the Canadian House of Commons without limits, but projections reflecting recent experiences in technology trends. Although Canada attracts nearly 150,000 skilled workers from around the world each year, it has not turned away any potential skilled worker and seeks to add more. Skilled workers are also given an expedited route to full citizenship.\textsuperscript{126}

Canada has been successful in the development of pilot projects that allow government officials to test various restraints on the flows of foreign workers.\textsuperscript{127} The goal of these pilot projects is to streamline the process to pair the needs of domestic technology industries with available foreign workers. The key component of the pilot projects is the absence of an arbitrary cap on the amount of technology workers, as caps

\textsuperscript{125} Jain, \textit{supra}, at 452.
\textsuperscript{127} Jain, \textit{supra}, at 455.
do not reflect the needs of domestic firms or trends in the industry.

Since the fall of the Soviet Union in the 1990s, over three billion people have entered the global knowledge-based market economy. As competition for skilled technology workers increases, the U.S. government has taken the opposite path and placed barriers for the ability of domestic firms to recruit and retain talent wherever it can be found. Through these brain blocking strategies, the U.S. emerges a poorer country in terms of its storehouse of knowledge, and increases that of other countries.

Skilled S & T workers from Asia not only must overcome legal barriers to work in the U.S., in many instances they must contend with institutionalized racial prejudices that are historically found in U.S. labor relations. Similar to the laws that limited the opportunities of Chinese workers in the mid- and late 1800s, restrictions on H-1B visas, ostensibly to protect national interests, retain the tinge of racism that accompanied the Chinese Exclusion Laws and similar laws that de jure restricted Asian immigration to the U.S.

Some studies have shown that the addition of intellectual capital through the

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128 Traven, supra, at 729.
H-1B visa program, if properly maintained to address the needs of domestic business and
Asian technology workers, adds to the knowledge base of employing firms and the
national economy. The H-1B program aids in reversing the potential brain drain as it
retains recent foreign graduates of U.S. educational institutions. It adds institutional
knowledge to domestic firms in that highly-educated foreign graduates are less likely to
return to their home country and start new technology businesses that will compete with
U.S. businesses, and creates forward and backward linkages with Asian technology
professionals that do return to their home country and create a technology start-up. H-1B
visa workers also enhance the American economy as they spend salaries and pay taxes.
Assuming that H-1B visa holders do not displace similar American workers, the
economic pie grows as the application of their knowledge creates complementary
domestic employment opportunities.

9. Conclusion

In conclusion, it would benefit the American technology industry if H-1B visa
quotas were eliminated, as in the Canadian model. A significant and feasible option
would be to give green cards directly to Asian S & T workers, bypassing the H-1B visa process altogether, and expediting the legal process to obtain work in technology firms.

The overall effect of adding intellectual and human capital, complete with skills that complement the needs of the domestic S & T industry, would increase the total amount of knowledge embedded into domestic S & T firms and industries, and supply a stream of new taxpayers into our economy.
BIBLIOGRAPHY


(Temple University Press).

**APPENDIX**


Figure 2. *H-1B Visas Issued Against the Cap by Year*. Source: Infoweek. Available at: [http://i.smpnet.com/infoweek/814/graphics/visa_chart.gif](http://i.smpnet.com/infoweek/814/graphics/visa_chart.gif)

APPENDIX

Figure 1

Source: Redbus2

Figure 2

Source: Infoweek

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Figure 3

Ethnographic Chart Showing the Distribution of the Races of Men
Source: Princeton University On-line Map Archives