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Does the United States Need Additional High-Tech Work Visas or Not? A Critical Look at the So-Called H-1B Visa Debate

Simone M. Schiller

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DOES THE UNITED STATES NEED ADDITIONAL HIGH-TECH WORK VISAS OR NOT? A CRITICAL LOOK AT THE SO-CALLED H-1B VISA DEBATE

I. INTRODUCTION

It is well established that the United States is currently the global forerunner of technological development, professional research, and advancement. Moreover, the United States continues to provide limitless business opportunities for growth and expansion. Since 1995, the U.S. technology sector has been responsible for more than one-third of all U.S. economic growth to date. With twelve percent of the information technology jobs remaining unfilled nationwide, however, maintaining this trend appears bleak at best. To remain competitive in the world economy, U.S. employers—in the short-term—must overcome this imminent shortage of qualified U.S. workers by employing foreign nationals. But as competition in international business invariably involves the ability to transfer and employ foreign nationals across international borders, government intervention limiting such movement of personnel becomes a trade barrier just as much as any tariff.

Thus, a resulting tension exists between the broader policy concern about high levels of migration to the United States, and the ability of U.S. business to attract the human resources needed to successfully maintain its advantage in an increasingly competitive global market.

2. Id.
4. Id.
7. See Scott McNealy & John Miano, Do High-Tech Firms Really Need Imported Workers?, USA TODAY, Sept. 21, 2000, at 17A (discussing the technology companies’ viewpoint of extending the H-1B program and raising the number of workers allowed as well as the critics’ response—namely that these firms simply desire cheaper labor).
Some perceive that there is little or no need for international or foreign personnel in the United States. On the other hand, realities surrounding the current state of higher education and key industries (e.g., semiconductors, biotechnology, software, and electronics) suggest otherwise.

The present employment-sponsored immigration laws are intended to assist U.S. companies in legitimate efforts to compensate for domestic labor shortages in critical industries—thus enabling the United States to attract the best and brightest workers available. The H-1B visa program is an employment-based non-immigrant visa plan that allows skilled foreigners in certain "specialty occupations" to work in the United States. The H-1B visa program does not adequately meet the demand, however, because during fiscal year 2000, the H-1B visa cap of 115,000 was reached on March 21, 2000—not even six months into the fiscal year that started on October 1, 1999. Unable to fulfill the needs for skilled workers under the existing H-1B visa program, the high-tech industry actively lobbied Congress to raise the annual cap on the number of H-1B visas granted to foreign workers. After months of wrangling, the White House and congressional supporters of a new H-1B visa bill finally reached a compromise in October 2000. On October 17, 2000, President Clinton signed into law the American

8. Id.
10. See HATCH, supra note 5, at 2.
11. 8 U.S.C § 1101(a)(15)(H)(i)(b) (1994). This section reads, in pertinent part, The term "immigrant" means every alien except an alien who is within one of the following classes of nonimmigrant aliens . . . (H) an alien (i) . . . (b) subject to [8 U.S.C. § 1182(j)(2) (1994 & Supp. IV 1998)] who is coming temporarily to the United States to perform services . . . in a specialty occupation described in [8 U.S.C. § 1184(i)(1) (1994)] or, in the case of a fashion model, is of distinguished merit and ability, and with respect to whom the Secretary of Labor determines and certifies to the Attorney General that the intending employer has filed with the Secretary an application under [8 U.S.C. § 1182(n)(1)] . . . Id. (emphasis added). This Comment primarily focuses on the H-1B program for "specialty occupations." Id.
14. See McNealy & Miano, supra note 7, at 17A.
Competitiveness in the Twenty-first Century Act of 2000 (AC-21).\textsuperscript{17} In short, this new law increases the available number of H-1B visas over the next three years.\textsuperscript{18}

This Comment explores the U.S. information technology’s staffing dilemma in relation to the existing H-1B non-immigrant visa cap and the U.S. legislative response thereto. Part II explores the pragmatic and ideological differences between the U.S. high-tech industry and its opponents in the battle for increased H-1B visas. This Part also briefly focuses on the effect that lifting the current H-1B embargo has on other countries, namely India. Part III explains how the H-1B visa program currently operates. Part IV discusses and analyzes the AC-21, which recently was signed into public law, and explores why the latest legislation does not resolve the United States’ high-tech employment problem. This Part also explains that the long-term solution to the U.S. high-tech worker shortage is to rework the U.S. educational system and habitually train the existing U.S. information technology workforce. Part V proposes that, despite Congress’ good intentions, the high-tech worker shortage will continue until both Congress and the information technology industry change their attitudes and beliefs about the public education of youth—the future workforce.

II. A CRITICAL LOOK AT WHAT DRIVES THE H-1B VISA DEBATE

A. The High-Tech Industry Perspective

As the United States enjoys the longest period of economic growth in its history, technology companies claim they need more qualified workers to fill the growing shortage of high-tech workers.\textsuperscript{19} If this is not achieved, the acute shortage of high-tech workers will place U.S. companies at a global competitive disadvantage.\textsuperscript{20} Since 1995, the technology field has been accountable for over one-third of all U.S. economic progress.\textsuperscript{21} Currently, at least twelve percent of information technology jobs are left unfilled nationwide, creating what is “widely considered the most severe labor shortage of the past [fifty] years.”\textsuperscript{22}

\begin{itemize}
  \item \textsuperscript{17} Id.
  \item \textsuperscript{18} American Competitiveness in the Twenty-First Century Act of 2000, Pub. L. No. 106-313, § 102(a)-(b), 114 Stat. 1251, 1251.
  \item \textsuperscript{19} See McNealy & Miano, supra note 7, at 17A.
  \item \textsuperscript{20} See id.
  \item \textsuperscript{21} White, supra note 3, at 1.
  \item \textsuperscript{22} Id.
\end{itemize}
The H-1B visa program has been deficient in meeting the exploding economy's demand. \(^\text{23}\) For example, during fiscal year 2000, the current H-1B visa cap of 115,000 was reached on March 21, 2000, not even six months into the fiscal year. \(^\text{24}\) In fact, a 1999 study by the Computer Technology Industry Association determined that the lack of information technology workers is costing the U.S. economy $105 billion per year. \(^\text{25}\) A 1999 study by Joint Venture found that the deficit of skilled workers is costing Silicon Valley \(^\text{26}\) companies alone three to four billion dollars a year. \(^\text{27}\) Accordingly, in response to the inability to fulfill the unprecedented need for skilled workers under the existing H-1B visa program, the high-tech industry aggressively lobbied Congress to raise the annual cap on the number of H-1B visas granted to foreign workers. \(^\text{28}\)

High-tech executives testified before Congress that increasing or removing the existing annual cap on the number of H-1B visas is crucial to the technological and economic leadership of the United States. \(^\text{29}\) The ten U.S. companies with the most H-1B workers authorized to begin employment during the first five months of fiscal year 2000 were: Motorola, Oracle, Cisco Systems, Mastech, Intel, Microsoft, Rapidigm,

\(^\text{23}\) Puzzanghera, supra note 13, at 8A.
\(^\text{24}\) See McNealy & Miano, supra note 7, at 17A.
\(^\text{25}\) HATCH, supra note 5, at 9.
\(^\text{26}\) Carolyn E. Tajnai, Fred Terman, the Father of Silicon Valley (Stanford Univ., May 1985), at http://www-forum.stanford.edu/About/History/terman.html (last updated Mar. 20, 1995). Tajnai describes the Silicon Valley as:

[L]ocated on the San Francisco, California[] peninsula, radiating outward from Stanford University. It is contained by the San Francisco Bay on the east, the Santa Cruz Mountains on the west, and the Coast Range to the southeast. At the turn of the century, when fruit orchards predominated, the area was known as the Valley of Heart's Delight. Today, semiconductor chips, made of silicon, are the principal product of the local high-tech industries.

\textit{Id.}

\(^\text{27}\) HATCH, supra note 5, at 9.
\(^\text{28}\) Valbrun, supra note 15, at B8.

Foreign engineers ... will play an important part in shaping this future world. The only question is will these foreign engineers apply their skills working at American companies, filing American patents, and supporting jobs at American factories, or will the H-1B visa cap force these foreign engineers to compete against American industry.

\textit{Id.} at 99.
Syntel, Wipro and Tata Consultancy, respectively. These companies primarily focus on high-tech products. Motorola manufactures "automobile and industrial electronics, cellular radiotelephones, semiconductor and radio communications products, and computer and information systems." Interestingly enough, a foreign-born engineer at Motorola "developed and implemented new package designs for ULSI (ultra large scale integration) devices." This product generated multi-million dollar sales and created hundreds of jobs. Oracle is the largest supplier of information technology software in the world. Cisco Systems "manufactures, develops and supports high performance, multiprotocol [sic] inter-networking systems," which link local area networks with wide area networks. Mastech is in the business of providing software engineers to at least eight countries, including the United States and Canada. Intel, the U.S. corporation with the fifth most H-1B workers, founded by Hungarian native Andrew Grove, "manufactures semiconductor devices, microcomputer chips, chipsets, motherboards and flash memory." Currently, Intel is "the world's largest semiconductor company, producing processor chips for [eighty] percent of the world's personal computers."

Overall job growth in the high-tech industry, coupled with a decline in the number of U.S. students majoring in fields such as engineering and computer science, led to the increased need for skilled foreign nationals. In other words, "Americans are not earning..."
specialized degrees fast enough to replenish the 1.3 million high-tech jobs the Labor Department estimates will be created during the next decade."42 A survey sponsored by the American Electronics Association found that "the number of doctoral degrees in engineering, computer science, math and physics declined by five percent between 1990 and 1996."43 The study also showed that although high-tech workers are wealthy due to their large base salaries and generous stock options, high-tech disciplines are attracting very few students.44 Until the root of this problem is solved, high-tech lobbyists assert that increasing or removing the current cap on H-1B visas is critical to sustaining the United States' effectiveness as a technological pioneer.45

B. Opposing Views on the H-1B Visa and High-Tech Industry

Responses

Many U.S. labor unions and the Institute of Electrical and Electronics Engineers allege that the high-tech industry prefers hiring foreign workers, often obliged to the U.S. companies who petition for their visas, over retraining U.S. engineers in other fields as a means to suppress wages.46 For instance, Rob Sanchez, a 45-year-old programmer who was replaced by an H-1B visa holder at a major technology company in 1999, says that he was denied employment because of his age—due to the influx of younger, cheaper information technology workers from abroad.47 Sanchez, among others, shares the view that the H-1B workers are taking jobs from Americans and giving them to foreigners.

Yet, failure to raise the H-1B ceiling is what will deprive Americans of jobs in the high-tech industry.48 A study for the Public Policy Institute of California showed that "Chinese and Indian immigrant entrepreneurs in Northern California alone were responsible

43. Tom Foremski, Running on Empty (Survey Implies Shortage of High-Tech Workers in the US), ELECTRONICS WKLY. (U.K.), May 19, 1999, at 38.
44. Id.
45. See Workforce Hearing, supra note 29, at 98–99.
46. Puzzanghera, supra note 13, at 8A.
47. Pratap Ravindran, India: Rising Doubts in US over IT Skills Import, BUS. LINE (HINDU), Nov. 21, 2000, available at 2000 WL 30105842. Sanchez has even created a Web site called “ShameH1B” that can be accessed at http://www.zazona.com/ShameH1B. Id. The “ShameH1B” Web site advocates against the employment of skilled foreign workers by U.S. firms. Id.
48. See McNealy & Miano, supra note 7, at 17A.
for employing 58,000 people with annual sales of nearly $17 billion."49 Two of Sun Microsystems' founders, Andy Bechtolsheim and Vinod Khosla, are foreign nationals.50 Additionally, James Gosling, a Canadian national, developed the Java platform that transformed computer software development.51 Hence, there is "no correlation between the percentage of foreign-born employees in a field and the unemployment rate in that field," according to National Science Foundation data.52

In addition to critics asserting that an increase in the H-1B visa cap provides cheap labor at the expense of U.S. workers, some older engineers claim they cannot find jobs.53 The same groups also criticize the H-1B visa program as being "rife with fraud."54 Fraud should not be tolerated, but allegations of widespread fraud are not supported by any evidence.55 Still, others assert that "[r]aising the cap on H-1B will

50. See McNealy & Miano, supra note 7, at 17A.
51. Id.
52. HATCH, supra note 5, at 12.
53. See generally Elisabeth Goodridge, Despite the IT Labor Shortage, Many Experienced Workers Say They Can't Find Jobs, INFO. WK., Oct. 9, 2000, available at 2000 WL 24586288. Goodridge explains:

[even] [t]hough little quantitative data exists . . . some industry observers and workers point to a rampant rise in age discrimination—starting as early as age 35—in the tech[nology] industry . . . [because] [n]ew programming languages and skills requirements are constantly popping up, making the older languages—and the older programmers that code them—obsolete.

Id. She further describes:

Many older workers are experienced with Cobol, the predominant programming language used in business for decades. But as companies move more segments of their operations to the Web, the primary demand now is for programmers experienced in Java, HTML, and other Internet-oriented technologies. The perception across the industry is that many older workers are too entrenched in the past to easily adopt to the new languages. 'There's a belief in Silicon Valley that what isn't new isn't useful, and that goes for people as well as technology,' says Bill Payson, the 76-year-old president of Senior Staff Inc., a recruiting firm that specializes in older workers.

There's also evidence that some companies are reluctant to train older workers on new technologies. Instead, they're more likely to go out and find new blood for what can sometimes be the most interesting and business-critical IT jobs.

Id.
54. Puzzanghera, supra note 13, at 8A.
55. H-1B Temporary Professional Worker Visa Program and Information Technology Workforce Issues: Hearing Before the Subcomm. on Immigration and Claims of the House Comm. on the Judiciary, 106th Cong. 46 (1999) (prepared statement of Charles Foster of Tindal & Foster). Foster mentioned that:
guarantee that this ‘shortage’ will go on for ever [sic] [and] [i]t’s going to be a self-fulfilling prophecy because wages are not going to go up.” 56 The prediction that the number of high-tech jobs in the United States is growing has been acknowledged by most. 57 The dispute, however, revolves around whether the United States needs to look overseas to fill these jobs.

C. Reactions of Other Nations

The majority of the H-1B visas are issued for occupations in systems analysis, computer programming, and electrical or electronic engineering occupations, 58 from India, China, Canada, the United Kingdom, and the Philippines. 59 In fact, nearly forty-three percent of the H-1B petitions granted from October 1999 to February 2000 were to Indian citizens. 60 China is a distant second with ten percent of the H-1B petitions granted to its citizens in the same time period. 61 Furthermore, fifty-six percent of all H-1B worker petitions approved between October 1999 to February 2000 were reported to have earned the equivalent of a bachelor’s degree, thirty-one percent earned a master’s degree, and eight percent have a doctorate degree. 62 Altogether, in the first five months of fiscal year 2000, more than ninety-five percent of the potential H-1B workers earned a bachelor’s degree or higher. 63

Where instances of fraud appear, they should be dealt with promptly . . . however . . . fraudulent applications are a very small portion of the total number of H-1B visas . . . [therefore fraud] issue[s] must be addressed in proportion to the scope of the problem. We must balance the interests of enforcement and services in order to achieve efficiency, effectiveness, and fairness.

Id. 56. Ravindran, supra note 47. Vernon Briggs, a Cornell University labor economist, asserts that “despite the IT industry’s victory in cajoling more H-1B visas, the American public will lose in the long run as the import of techies will kill the market incentives for young Americans to pursue coding as a career.” Id. 57. See id.


59. Id. at 2.
60. Id.
61. Id.
62. Id. at 5.
63. Id.
So, what does India think about losing highly educated people, many of them educated at the expense of Indian taxpayers? India's population is over one billion, rivaling China in potential growth. Poor infrastructure of roads, ports, and power, however, prevents India from cashing in on its low cost labor and creating a large manufacturing base for exports. Also, India has "one of the lowest literacy rates in the developing world." On the other hand, India's universities are its "diamond in the rough." India's universities are top-notch and graduate large numbers of highly trained engineers and other high-tech specialists. Because of this, the high-tech world may be promising for India's future.

It is expected that Indian computer programmers will hold approximately eighty-thousand U.S. H-1B visas over the next two years. Currently, fifty-three percent of Indians who are granted H-1B visas are computer professionals. The United States' continuous import of both personnel and software, however, will stress India's domestic information technology industry. In short, India cannot afford to export both personnel and software. Even though it might help the Indian economy to increase revenues in the short-term as more professionals can be sent abroad, there is a danger of permanently losing employees working for U.S. companies.

Furthermore, if Indian companies want to retain their employees, they will "be forced to jack up salaries and invest heavily in training people." Even now, Indian companies requiring high manpower

67. Id.
68. Id.; see also CENT. INTELLIGENCE AGENCY, supra note 65, at 230 (documenting that only fifty-two percent of India's population age fifteen and over can read and write).
70. Id.
73. See id.
75. Id.
skills face their own shortage of high-tech personnel. This shortage is likely to become more apparent in the short-run as Great Britain tripled its quota of working visas to ninety-thousand per year and countries like Germany, Austria, and Norway are taking similar actions to recruit Indian professionals. Incidentally, many of these H-1B Indian professionals were educated by India’s government-funded institutions. Ironically, the end result is a transfer of wealth from the average Indian taxpayer to multi-billionaire Bill Gates’ bottom line.

III. OVERVIEW OF THE H-1B VISA PROGRAM

The H-1B is a non-immigrant employment-based visa for workers coming to the United States to perform a “specialty occupation.” A specialty occupation requires the “theoretical and practical application of a body of highly specialized knowledge” and, at least, a bachelor’s degree or its equivalent in the specialty occupation. Examples of specialty occupations include, but are not limited to: accounting, architecture, business specialties, education, engineering, law, mathematics, medicine and health, physical sciences, social sciences, the arts and theology. The H-1B visa allows foreign workers to live in the United States for a maximum of six years. The visa is originally granted for three years, but can be renewed once for an additional three years. One hundred and fifteen thousand foreigners were issued H-1B visas in fiscal year 2000. Equally important is the fact that in fiscal year 2001, the H-1B visa cap decreases to 107,500 and in fiscal year 2002, the cap lowers to 65,000.

A. The Actual Wage and Prevailing Wage Requirements

There are several steps for the “United States employer” (employer) to complete to hire an H-1B employee from outside the...
United States. First, the employer must determine the “actual wage” and the “prevailing wage” for the occupational classification in the area of intended employment. "The actual wage is the wage rate paid by the employer to all other individuals with similar experience and qualifications for the specific employment in question.”

More than one method is available to employers, however, when determining the “prevailing wage” level for an H-1B specialty occupation. The “prevailing wage” can be determined by the employer’s State Employment Security Agency (SESA) upon receipt of a written request by the employer. The SESA considers the responsibilities, skills and experience required for the job when it computes the prevailing wage. Unfortunately, once an employer uses a SESA prevailing wage determination to file a Labor Condition Application (LCA), the prevailing wage becomes binding upon the H-1B employer.

Another option available for computing the “prevailing wage” is utilizing a published wage survey that includes “the occupation within the area of intended employment published by an independent authoritative source . . . within the 24-month period immediately preceding the filing of the employer’s application.”

B. The Labor Condition Application

After determining the “actual wage” and the “prevailing wage” of the potential H-1B worker, the employer must then complete the LCA and obtain U.S. Department of Labor (DOL) certification stating that it filed the LCA in the occupational specialty where the foreign worker will be employed. The LCA covers full-time or part-time positions and consequently, an H-1B foreigner may work in full-time or part-time employment in the United States and still remain within acceptable H-1B visa status.

89. 20 C.F.R. § 655.731(a) (2000).
90. Id. § 655.731(a)(1).
91. Id. § 655.731(a)(2)(iii)(A).
94. Id. § 655.731(b)(3)(iii)(B).
96. 20 C.F.R. § 655.730(c)(3).
Within the LCA, the employer must make several promises. First, the employer must attest that it will pay the potential H-1B worker the "actual wage" rate or the "prevailing wage" level, whichever is higher. Second, the employer must commit to provide working conditions for the potential H-1B employee that "will not adversely affect the working conditions of workers similarly employed" in the area of intended employment. Third, the employer must also declare that there is not a strike or lockout in an ongoing labor dispute in the occupation and location in which the H-1B worker will be employed.

Additionally, at the time of the LCA filing, the employer must pledge to notify the bargaining representative of employees in the occupational classification and area where foreign workers are sought. If there is no bargaining representative, the employer must post notices of the LCA application in conspicuous locations at the place of employment or notify the required employees about the application via electronic mail. The LCA will specify the number of necessary H-1B workers, their occupational classification, and the conditions and wage rates at which they will be employed.

Two further attestations are also required for "H-1B dependent employers," namely the "no-layoff/non-displacement attestation" and the "recruitment attestation." The "no-layoff/non-displacement
attestation” forbids an employer from laying off U.S. workers from employment for a period of 180 days, commencing ninety days before the filing of the H-1B petition, and ending ninety days after the filing of the petition.\textsuperscript{106} This attestation also prohibits an employer from placing the H-1B worker with another employer where there is an “indicia of an employment relationship” between the H-1B worker and the second employer, unless it first asks the other employer whether it has or intends to displace a U.S. worker within the 180-day period.\textsuperscript{107} The “recruitment attestation” obligates an employer to exercise a good faith effort in recruiting U.S. workers for the job that the H-1B foreign worker will perform.\textsuperscript{108} The statute establishing these two required H-1B dependent employer attestations includes a sunset clause whereby the requirement is eliminated on October 1, 2001.\textsuperscript{109}

Finally, the employer is required to submit the LCA to the Employment and Training Administration (ETA) at the DOL no earlier than six months before the H-1B worker’s intended start-date of employment shown on the LCA.\textsuperscript{110} Regulations require the ETA regional office to determine whether to certify the LCA within seven working days of receipt of the application.\textsuperscript{111} In practice, however, the ETA’s LCA processing takes approximately two to four weeks—a violation of the DOL’s own regulations.\textsuperscript{112} Although the ETA’s certification concludes the LCA step in the process, further governmental reviews remain before the H-1B worker can commence work in the United States.

C. The “Final” Hurdle: Form I-129

After obtaining DOL certification of the LCA, the employer must file the required Immigration and Naturalization Service (INS) petition,
called Form I-129. The potential foreign worker’s employment cannot commence until the H-1B visa is issued. Therefore, employers should file the Form I-129 far enough in advance to accommodate the potential four-month waiting period for actual INS approval of the petition. The Form I-129 must be completely filled out and filed along with: the certified LCA from the DOL; evidence that the proposed employment qualifies as a specialty occupation; evidence that the foreigner has the required degree; a copy of any required license to practice the occupation in the state of intended employment; and a copy or summary of any written or oral employment contracts between the employer and the foreigner.

The INS filing fee for the Form I-129 is a $110 base fee plus an additional $500 fee to sponsor the H-1B worker. Higher education institutions, affiliated or related nonprofit entities, nonprofit research organizations, and governmental research organizations are exempt from paying the additional $500 fee. It is important to note that an employer seeking extension of the initial three-year term for an H-1B employee must file another INS Form I-129 along with the required fees. If the H-1B worker wishes to change employers without affecting his or her visa status, the new employer must also file an I-129 petition along with the requisite fees for the H-1B worker before he or she commences work.

Finally, in addition to the Form I-129, a Form I-129W must accompany all H-1B petitions filed on or after March 30, 2000. On the I-129W, the employer must include information relating to the H-1B job opening, the employer’s industry, the potential H-1B worker’s highest level of education and compensation, and the foreigner’s country of origin. Among other costs, a petitioner is also liable for the “reasonable costs of return transportation” if an H-1B employee is...
dismissed before the end of his or her authorized employment period.122

Having completed all of the foregoing requirements, the worker can then commence employment in the United States. His or her employment has ramifications both in the United States and in the native country, as will be discussed below.

IV. THE FUTURE: THE AMERICAN COMPETITIVENESS IN THE TWENTY-FIRST CENTURY ACT OF 2000

A. The Newest Federal H-1B Visa Legislation

In early 2000, as a direct response to increased demand for skilled workers, the AC-21123 was introduced to the U.S. Senate. The AC-21's stated purpose is "to increase [U.S. employer] access to skilled personnel immediately in order to prevent current needs from going unfilled . . . [and to] increase . . . other [U.S.] training efforts, so that more Americans can be prepared to keep this country at the cutting edge and competitive in global markets."124 To the relief of the high-tech industry, on October 17, 2000, President Clinton signed AC-21 into law.125 The President’s approval came just fourteen days after both the U.S. Senate and House of Representatives approved the bill.126 The new public law raises the annual cap on H-1B visas through the 2003 fiscal year and increases the H-1B filing fees.127

To begin, AC-21 increases the H-1B visa quota by a remarkable seventy percent—from 115,000 to 195,000 visas per year—starting in the 2001 fiscal year and ending with the conclusion of the 2003 fiscal year.128 The effects of this remain to be seen because demand for H-

124. HATCH, supra note 5, at 2–3.
1B workers is also on the rise. The increased cap, however, is expected to lengthen the period that the visas will be available, from the current six months to most or all of the 2001 fiscal year. In addition to the increased quota, section 102(b) of the AC-21 provides for the clearing out of pending H-1B cases, thereby insuring that all 195,000 visas allowed under the revised cap are available during the 2001 fiscal year.

The new law also creates an exemption from the H-1B quota for colleges, universities, and nonprofit or government research organizations. This revision could effectively free an additional 6,000 to 10,000 H-1B visas available for private sector use each year, thereby helping to ease the current demand for skilled professionals in the United States. If, however, the H-1B employee leaves an exempt employer to work for a non-exempt employer, the worker will immediately lose the exempt status and be counted toward the H-1B cap. An inherent problem with this structure is the status of the exempt employee seeking to transition to non-exempt employment when the H-1B cap has been met. Oversights like this still need to be addressed by Congress.

Section 103 of AC-21 provides that an H-1B non-immigrant who has already been counted toward a cap in the six years prior to the approval of a new petition will not be counted against the current quota, unless he or she is eligible for a full six years of admission at the time the new petition is filed. This provision differs from current INS practices that count H-1B visa holders who are outside the United States at the time of the petition’s filing against the cap, regardless of whether they previously held H-1B status. Section 103 also provides that “[w]here multiple petitions are approved for [one foreigner], that

130. See id.
131. Congress Clears H-1B Legislation in Surprise Move; President Clinton Expected to Sign, 77 INTERPRETER RELEASES 1437, 1438 (Oct. 9, 2000) (explaining that the 115,000 cap for fiscal year 2000 (October 1, 1999 through September 30, 2000) has been raised retroactively to accommodate all H-1B cases that were filed before September 1, 2000, regardless of when they were approved).
133. Cole, supra note 129, at 5.
135. Id.
136. Congress Clears H-1B Legislation in Surprise Move; President Clinton Expected to Sign, supra note 131, at 1438.
[foreigner] shall be counted only once."\textsuperscript{137} This may compel the INS to develop a method to ensure that multiple petitions on behalf of one individual do not count as multiple hits against the cap.

In terms of the H-1B status’ portability, the AC-21 provides that a "nonimmigrant alien," previously issued a H-1B visa, is authorized to accept new employment upon filing by the prospective employer of a new petition on behalf of the potential employee.\textsuperscript{138} This increased portability is suspended only if the new petition is denied.\textsuperscript{139} This section should resolve some of the problems faced by H-1B employees and employers as a result of INS processing delays.\textsuperscript{140}

These changes seem to ease some of the burdens on U.S. employers, but concerns remain regarding the AC-21’s supposed goal to “increase [the United States’] other training efforts, so that more Americans can be prepared to keep this country at the cutting edge and competitive in global markets.”\textsuperscript{141} Section 110 of the bill requires the Secretary of Labor and the Director of the National Science Foundation to track and monitor the performance of programs receiving H-1B funds and to submit a report on their findings within one year of AC-21’s enactment.\textsuperscript{142} This required report must include “the number of individuals who have completed training and have entered the high-skill workforce through these programs.”\textsuperscript{143} Section 110 falls prey, however, to the problem that a right is only as good as its remedy. Section 110 neither outlines nor contemplates a course of action if the Secretary of Labor and the Director of the National Science Foundation’s report is unfavorable.\textsuperscript{144}

Section 111 of AC-21 aims to improve the DOL’s demonstration programs and projects in an attempt to increase the pool of available

\textsuperscript{137} American Competitiveness in the Twenty-First Century Act of 2000 § 103.
\textsuperscript{138} Id. § 105. “Nonimmigrant alien” is defined under the AC-21 as a person who has been lawfully admitted into the United States; [] on whose behalf an employer has filed a nonfrivolous petition for new employment before the date of expiration of the period of stay authorized by the Attorney General; and [] who, subsequent to such lawful admission, has not been employed without authorization in the United States before the filing of such petition.
\textsuperscript{139} See id.
\textsuperscript{140} Cf. New2USA.com, supra note 88 (explaining that employment of a potential foreign worker cannot begin until the H-1B visa is issued, which in some cases can be up to a four-month wait for the INS to approve the petition).
\textsuperscript{141} HATCH, supra note 5, at 3.
\textsuperscript{142} American Competitiveness in the Twenty-First Century Act of 2000 § 110.
\textsuperscript{143} Id.
\textsuperscript{144} See generally id.
U.S. workers with the skills necessary to enter the high-tech workforce. In the short-term, however, this appears to be a day late and a dollar short. Section 111 does establish funding allocations, the requirements for grant applications, and the desired training outcomes. Yet, beyond that, no other details are discussed.

Section 112 of AC-21 authorizes the appropriation of up to $20 million from the Violent Crime Reduction Trust Fund for fiscal years 2001 through 2006, for after-school technology program grants to the Boys and Girls Clubs of America. The focus of this section, although positive, appears to be more focused on keeping the youth of the United States out of trouble rather than increasing the pool of U.S. high-tech workers. It remains to be seen whether this funding will encourage Boys and Girls Club members to attend college and pursue much-needed technical degrees.

B. Raising the H-1B Visa Cap Will Not Solve the United States' High-Tech Employment Problem

In the short term, "[t]he [H-1B] increase was needed, many argued, given that the robust nature of the [U.S.] hi-tech [sic] industry helped fill this year's visa quota by as early as March [2000]. In addition, without the passage of new legislation, the number of visas would have dropped to 107,500 this fiscal year and 65,000 next [fiscal] year." Still, increasing the number of available visas is not likely to cure the high-tech employment problem; it seems inevitable that the United States will encounter further obstacles as technology progresses and the need for skilled labor increases.

1. Demand for High-Tech Workers Is Soaring

America's high-tech labor shortage will not be resolved by an increase in H-1B visas alone because of the ratio of exploding demand for U.S. high-tech workers relative to high-tech employment growth.

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145. Id. § 111.
146. Id.
147. See id.
148. Id. § 112.
149. See generally id.
151. See Quinlan & Prochniak, supra note 150.
152. See id.
“Even though the new quotas boost the number of skilled foreign workers entering the work force by 80,000 a year, the increase pales against the [one] million information technology positions that are currently unfilled in the [United States].”  

Equally important, according to congressional estimates, another 200,000 new high-tech jobs will be created every year for the next ten years.

2. Challenges for a Global Economy

Another concern is the increasing global competition to recruit the brightest talent:

The [United States] is not alone in confronting a shortage of [information technology] workers—Germany, South Korea, Singapore and Japan are struggling in kind, and have sweetened incentives for foreign workers over the past year. Just as immigration policies in the [United States] have become more liberal, so have policies in Germany, the [United Kingdom] and even [population sensitive] Japan.

A related reason for anxiety is growing evidence of a reverse brain drain. Thanks to “the spread of the Internet, industry deregulation and more indigenous venture capital,” many workers return home to reap the benefits of the lucrative technology market.

Thus, many of the best-educated foreign workers in the United States return home to attempt to become successful in their native countries. Additionally, a large number of workers in key labor supplier nations as India, Brazil, and China are choosing not to leave the comforts of home as technological opportunities are blossoming worldwide. Throughout Asia, many governments are laying the foundations for their own versions of the NASDAQ stock market, with

153. Id.
154. Id.
155. Id.
156. Id.
157. Id.
158. Id. Interestingly,

[m]any Mexican internet and software entrepreneurs have [Masters in Business Administration] degrees from top [U.S.] business schools, but have rejected lucrative [information technology] offers in the [United States] to return home.” Brazil has seen workers return home as a result of the technology boom. In China, meanwhile, government statistics reveal that the number of returning students soared to nearly 7,400 in 1998, up from roughly 1,600 in 1990.

159. See id.
160. Id.
hopes of attracting high-tech companies.\textsuperscript{161} These efforts, in turn, are aimed at discouraging citizens from leaving their homelands in the first place.\textsuperscript{162}

3. Shifting Labor Demands

The United States is not the only nation in need of skilled high-tech workers for industry:

As the information technology [(IT)] revolution goes global, and Internet linkages spread, there is less and less reason for skilled knowledge workers to come to the [U.S.]. The global IT revolution . . . is becoming less US-centric [sic], spreading instead to various parts of the world, [and thus] reducing the desire of skilled labour to emigrate.\textsuperscript{163}

On the other hand, this may mitigate the need for more technology workers in the United States with employment demand shifting abroad.

Assuming the demand for U.S. high-tech workers is not alleviated, U.S. businesses will increasingly have to step up recruitment efforts, rather than hope that the workers will find them.\textsuperscript{164} In fact, "[U.S.] foreign affiliate employment in the computer and office equipment sector jumped by more than [20\%] between 1995 and 1998."\textsuperscript{165} In the same time period, U.S. foreign affiliate employment "in the computer and data processing sector [soared] by more than [92\%]."\textsuperscript{166} Thus, overseas workforce expansion is necessary to avoid stunting internal growth in the United States as a result of the shortage of skilled workers.

Unfortunately, raising the number of H-1B visas will do little to address the underlying problems in the U.S. labor market. The recent legislation does not address the fact that the information technology revolution is a worldwide phenomenon and that various global issues make it challenging for the United States and other technologically advanced nations to attract and maintain a skilled labor force.\textsuperscript{167} In essence, it appears that the global hunt for skilled high-tech workers has only just begun and will only worsen in the future as new technologies are developed and more workers are needed to support them.

\textsuperscript{161} Id.
\textsuperscript{162} See id.
\textsuperscript{163} Id.
\textsuperscript{164} See id.
\textsuperscript{165} Id.
\textsuperscript{166} Id.
\textsuperscript{167} See id.
C. What is the Long-Term Solution to the High-Tech Worker Shortage?

The AC-21 gives U.S. information technology companies the short-term relief they need to meet today's labor demands to ensure that the high-tech industry will continue to stimulate the U.S. economy. Meeting the ever-expanding needs of the U.S. high-tech industry, however, cannot be accomplished without a serious long-term commitment to expand job training for workers and an increase in educational opportunities for students in the United States. The fact that U.S. high school seniors rank at the bottom in math and science when tested against other students in developed countries is testimony to a failed educational system. This may be the reason why the United States does not have a sufficient number of engineering or computer science graduates. The reality is that the United States just does not have enough qualified candidates coming out of high school. Stated differently, if the United States does not start producing its own high-tech workforce, it will not be in a position to compete in the global high-tech marketplace. The desperate quick fix of boosting H-1B visa quotas to 195,000 is yet additional evidence of a failing public and private educational system.

The information technology industry, which lobbied heavily for the current H-1B visa increases, can afford to pay a higher fee in order to invest in technology skill upgrades and fund educational endeavors in the United States.

V. CONCLUSION

In the short-term, the United States needs to remain globally competitive. This means allowing non-immigrant workers to fill the void in the U.S. high-tech industries. The United States should not, however, simply mask the short-term problem—it must find the cure for the long-term problem. Pro-active policies can play a great role in leveraging the United States' strengths in this new economic order. First, the United States must upgrade its educational and training institutions, sharpen its job-orientation, and greatly increase the number of technology graduates so that staffing needs can be met. Second, governmental authorities should make sure that manpower import, if necessary, grows along legal channels. The real and long-term solution, however, consistently points to the U.S. educational system.

169. See McNealy & Miano, supra note 7, at 17A.
As a nation, the United States needs to make the education of its youth its top priority. This means increased funding and enhanced scholarships for science, mathematics, computer, and engineering degrees. Additionally, the United States should consider ways to entice qualified technical teachers to teach because they can earn five times more when practicing their trades in the field. Why are there not more students studying fields like analog circuit design? Should the U.S. technology industry have to fund technical studies or should this burden fall on the taxpayers? These questions must be answered. Ultimately, active recruiting by colleges and universities, not just for admission, but for retention is necessary. "A strategy to bolster engineering and computer-science education should be drafted immediately." 170

It is incumbent upon the tech-industry as well as the government to "address the situation before it deteriorates further." 171 The U.S. citizens should get tax breaks for higher education. Why is the United States unable to fill the high-tech staffing demands? Is it because there are better opportunities? Is it because the young adults of the United States cannot afford to attend college? Is it because the United States does not have enough top-notch college or university instructors? Does this crisis exist because students are not sufficiently academically challenged or provided with technology in their classrooms at a young age? The solutions to the problem could be higher pay for gifted, motivated instructors, more funding for computer labs on campuses, or offering a variety of interesting technological courses at the high school level.

170. Rick Boyd-Merritt, People Problem, ELECTRONIC ENGINEERING TIMES, Mar. 15, 1999, at 52.
171. Id.
If and when these issues are resolved, then, and only then, can this ongoing H-1B visa debate become moot. In the meantime, the AC-21’s band-aid effect appears to be sufficient, as turning away the world’s most educated, skilled, and talented workers would be an act of technological and economic suicide.

Simone M. Schiller*

* J.D. candidate, Loyola Law School, 2001; B.S., Business Administration, emphasis in Financial Management, California Polytechnic State University at San Luis Obispo, 1995. I extend my deepest thanks to my father, Barry (the engineer in the family), for inspiring this Comment and for his invaluable help and wisdom ever since I could fit in the palm of his hand; to my mother, Julie, who provides constant love, guidance, and support in every aspect of my life; to my brother, Ian, for his love and respect throughout my personal and educational endeavors; and to my sister, Monique, whose profound love, fashion advice, and laughter sustain me. I would also like to thank Wayne Watson for his affection and understanding; Alicia Rizzo Soriano for being my dearest friend; and Jean Yasuhara Law for being there for me, not only as an Editor-in-Chief, but as my trusted confidante. I also want to thank Professor Susan Smith Bakhshian, Professor Samuel H. Pillsbury, and the Volume 23 editors and staff members of the *Loyola of Los Angeles International & Comparative Law Review*. Finally, this Comment is dedicated to the loving memory of my lola Simeona, who taught me the meaning of unconditional love.