

Reform of the H-1B Work Visa: Major Points

Norman Matloff*

University of California, Davis

April 26, 2003

1 Direct Adverse Impacts of the H-1B Program on U.S. Workers

- By official data, currently more than 100,000 U.S. programmers¹ are unemployed. Many more are *underemployed*, technically employed working in nonprofessional jobs such as bus driver, real estate appraiser, and so on. The un- and underemployed easily total a half million workers. Meanwhile 463,000 H-1Bs are employed in the field.²
- The National Research Council report, commissioned by Congress, pointed out that H-1Bs have an adverse impact on overall wage levels.³
- Major companies are involved:
 - In 2002, **Sun Microsystems** admitted in court that it is laying off Americans while retaining H-1Bs *in the same jobs*, and that it does not give Americans priority over H-1Bs in hiring.⁴ This directly contradicts their 1998 testimony to the U.S. Senate, in which Sun repeatedly stated that they employ H-1Bs only as a last resort when no qualified Americans are available.⁵
 - A number of other major companies admit replacing American workers by H-1Bs and L-1s—and forcing the laid-off Americans to train their foreign replacements. These include **Siemens**,⁶ **Netscape/AOL**,⁷ the **Bank of America/Exult**,⁸ etc.

*Dr. Matloff is a professor of computer science and a former software developer in industry. His bio is available at <http://heather.cs.ucdavis.edu/matloff.html>.

¹The term *programmers* includes software engineers, system analysts and so on. The vast majority of high-tech H-1Bs are programmers, as opposed, for example, to electrical engineers and the like.

²N. Matloff, forthcoming academic paper.

³National Research Council, *BUILDING A WORKFORCE FOR THE INFORMATION ECONOMY*, National Academies Press, 2001.

⁴*SANTIGLIA V. SUN MICROSYSTEMS*, U.S. Dept. of Labor, Office of Administrative Law Judges, Case No.: No. 2003-LCA-2.

⁵Ken Alvares, Vice President, Human Resources, Sun Microsystems, *TESTIMONY BEFORE THE COMMITTEE ON THE JUDICIARY U.S. SENATE HEARING ON THE HIGH TECH WORKER SHORTAGE AND IMMIGRATION POLICY*, February 25, 1998

⁶Lisa Vaas, *L1s Slip Past H-1B Curbs*, *EWEEK*, January 6, 2003

⁷Jennifer Bjorhus, *U.S. Workers Taking H-1B Issues to Court*, *SAN JOSE MERCURY NEWS*, September 26, 2002.

⁸See first Sarah Lunday and Rick Rothacker, *BofA to Send Tech Jobs Overseas*, *CHARLOTTE NC OBSERVER*, March 6, 2002. Then view important further details at the Programmers Guild Web site, <http://www.programmersguild.org/Guild/h1b/howtounderpay.htm>, which shows that many of the newly-hired workers were H-1Bs, rather than workers in India as reported by the *OBSERVER*.

- I am using the term *American* to mean U.S. citizens (native or naturalized) and permanent residents. Green card holders/naturalized citizens are just as adversely affected as natives are; both groups are shunned by employers in favor of the exploitable H-1Bs.

2 Use of H-1Bs As Cheap, Compliant Labor

- Types of labor cost savings accrued by hiring H-1Bs:
 - **Type I:** Employer pays H-1B less than Americans of the same qualifications.
 - **Type II:** Employer runs out of younger Americans to hire, then hires younger H-1Bs, thus avoids hiring older—i.e. more expensive—Americans.⁹
 - **Type III:** Employer exploits the H-1Bs' *de facto* indentured-servant status, forcing them to work extremely long hours.
 - **Type IV:** H-1B worker population, by swelling overall U.S. labor pool, suppresses wages.
- Plenty of *hard data*¹⁰ showing that Type I savings is rampant
 - UCLA study; 33% pay gap.¹¹
 - Cornell University study; 10.4-29.6% pay gap.¹²
 - UC Davis study; 15-20% pay gap.¹³
 - Congressionally-commissioned NRC study; gap not quantified.¹⁴
- H-1Bs are typically *de facto* indentured servants:
 - Still immobile if sponsored for green card, in spite of 2000 legislation.
 - The Immigrants Support Network (www.isn.org) said that the H-1Bs are “...indentured servant[s]...modern day slave[s].”¹⁵
 - See also the NRC report.

3 Prevailing-Wage Laws Are Virtually Meaningless

- Laws/regulations riddled with loopholes.¹⁶

⁹See the NRC report, and my updated congressional testimony, for extensive analyses of the fact that older workers in this field face major difficulties. Without access to the H-1B labor pool, the employers would be forced to consider the older workers.

¹⁰Contrary to the claims by industry lobbyists that evidence of abuse is merely “anecdotal”

¹¹Paul Ong and Evelyn Blumenthal, *Scientists and Engineers*, in Darrell Hamamoto and Rodolfo Torres (ed.), *NEW AMERICAN DESTINIES: A READER IN CONTEMPORARY ASIAN AND LATINO IMMIGRATION*.

¹²Demetrios Papademetriou and Stephen Yale-Loehr, *BALANCING INTERESTS: RETHINKING U.S. SELECTION OF SKILLED IMMIGRANTS*, Carnegie Endowment for International Peace, 1996.

¹³N. Matloff, updated congressional testimony, <http://heather.cs.ucdavis.edu/itaa.html> 130 pages.

¹⁴National Research Council, *BUILDING A WORKFORCE FOR THE INFORMATION ECONOMY*, National Academies Press, 2001.

¹⁵*Straight Talk* (weekly television program produced by Santa Clara County Democratic Club), June 10, 2000.

¹⁶It is thus useless to complain to the Dept. of Labor, as DOL itself has pointed out. The claims by industry lobbyists that lack of complaints must mean that abuse of H-1B is rare are thus incorrect.

- E.g., “hot” software skills, say XML, do not need to be accounted for in calculating prevailing-wage level. Thus one can hire an H-1B XML programmer, who would command a premium wage on the open market, for the price of a generic programmer—all perfectly legal.
- See excellent Programmers Guild case study (**Bank of America**), HOW TO UNDERPAY AN H-1B.¹⁷
- Immigration attorney Joel Stewart boasted, concerning the green card process, “Employers who favor aliens have an arsenal of legal means to reject all U.S. workers who apply.”¹⁸
- Prevailing-wage laws do nothing at all to address Type II salary savings.

4 H-1B Dependency Restrictions Must Be Made Universal

- So-called “H-1B-dependent” employers must recruit Americans before H-1Bs, cannot hire H-1Bs if they are laying off Americans, etc.
- But only 50 out of 50,000 H-1B employers are in the H-1B-dependent category.¹⁹ The 15% bar in the definition of *H-1B-dependent* is quite high, since it does not exclude a firm’s nontechnical workers, e.g. secretaries, marketers, sales staff, custodians, etc.
- A 2002 legal proceeding was brought against Sun Microsystems by a U.S. worker who complained that he was laid off while Sun retained H-1Bs in the same job category.²⁰ Sun freely admitted to laying off Americans while retaining H-1Bs in the same jobs, but pointed out that since it is not considered an H-1B-dependent employer, it was free to take such action. As noted earlier, this is in stark contrast to the assurance Sun gave in its U.S. Senate testimony that it only employs H-1Bs as a last resort, i.e. if no qualified Americans are available.

5 “The Best and the Brightest”

- I have always strongly supported bringing in the “geniuses” from around the world. But only a tiny percentage of H-1Bs fit this description.
- 99% of computer-related H-1Bs make less than \$79,400 per year, certainly not genius-level pay in a field in which the median salary for all Software Application Engineers in 2001 was \$70,210.²¹
- Of 54 recipients of the ACM System Software Award through 2001 (this is the award most closely associated with innovation in practice), only two have been foreign-born.²²
- Foreign computer science/engineering doctoral students in the U.S., who often later become H-1Bs, have generally been of ordinary quality, not “geniuses.”²³ The foreign students are disproportionately

¹⁷<http://www.programmersguild.org/Guild/h1b/howtounderpay.htm>

¹⁸Joel Stewart, *Legal Rejection of U.S. Workers*, IMMIGRATION DAILY, April 24, 2000.

¹⁹See immigration attorney Jose’ Latour’s electronic newsletter,<http://www.usvisanews.com/memo1192.html>, January 6, 2001.

²⁰SANTIGLIA V. SUN MICROSYSTEMS, U.S. Dept. of Labor, Office of Administrative Law Judges, Case No.: No. 2003-LCA-2. Several other suits like this are now pending against Sun as well.

²¹Bureau of Labor Statistics, 2001 NATIONAL OCCUPATIONAL EMPLOYMENT AND WAGE ESTIMATES. See also statistical analysis of INS data in my forthcoming academic paper.

²²See N. Matloff, forthcoming academic paper. The ACM (the Association for Computing Machinery) is the main computer science professional body.

²³The former foreign doctoral students comprise only a small fraction of all H-1Bs anyway; see below.

enrolled in the academically weaker universities,²⁴ and their representation in the ACM Dissertation Awards has been proportionally lower than their enrollment numbers.²⁵

- True international recognition, not merely the possession of a doctorate or publications, should be the criterion for “best and brightest.” The current National Interest Waiver system works well, though the related O visa might need updating.
- Industry lobbyists often cite a study extolling the entrepreneurial activity of immigrants in Silicon Valley.²⁶ However, the study does not claim that immigrants are more entrepreneurial than natives, and in fact the data in the study data show that the rate of immigrant entrepreneurship is less than immigrant representation in the tech workforce. Similarly, immigrant-founded companies have generally not made pathbreaking advances in technology.²⁷

6 Doctorates

The industry statement that 40-50% of U.S. doctorates in computer science are awarded to foreign students is accurate but misleading.

- The Ph.D. issue is a red herring in the H-1B debate. Only 1% of computer-related H-1Bs have a doctorate.²⁸
- A doctorate is not needed in this field. Even the big firms such as Intel and Sun Microsystems hire very few of them.²⁹
- Pursuing a Ph.D. is not financially attractive for domestic students; a doctorate causes a net loss in lifetime career earnings in industry.³⁰

²⁴ See David S. North, *SOOTHING THE ESTABLISHMENT: THE IMPACT OF FOREIGN-BORN SCIENTISTS AND ENGINEERS ON AMERICA*, University Press of America, 1995. North found that the lower-ranked U.S. engineering doctoral programs consisted 50.6% of foreign students, while the higher-ranked U.S. programs had only a 37.2% foreign enrollment.

The PR hype on the quality of the H-1Bs was epitomized by a 60 MINUTES television broadcast on January 12, 2003, amidst a PR campaign by Indians and Indian-Americans called “Brand IIT.” (See *Big Guns Come Together to Promote Brand IIT*, Harihar Narayanswamy, *TIMES OF INDIA*, December 26, 2002.) The goal was to publicize the Indian Institute of Technology university system. The 60 MINUTES piece called IIT the best engineering school in the world, and portrayed all the IIT graduates as geniuses. All of this was puff-piece journalism, not a serious look at what actually is a genuine success story.

India should indeed take pride in IIT, and there have indeed been many top IIT students who come to U.S. graduate schools (some later becoming top university faculty). But it is certainly not the case that most, or even many, IIT students are geniuses. And the institution itself is merely good, not world-class. Its faculty have not produced the seminal research papers, the patents, the standard-setting textbooks and so on which are needed for world-class status. It suffices to point out that it is the IIT graduates who come to the U.S. for advanced study, rather than American students going to IIT.

²⁵N. Matloff, forthcoming academic paper.

²⁶AnnaLee Saxenian, *SILICON VALLEY’S NEW IMMIGRANT ENTREPRENEURS*, Public Policy Institute of California. PPIC is in funded by an industry-related source, William R. Hewlett, co-founder of Hewlett-Packard.

²⁷Nor have native-founded companies generally done so. Progress in the computer field is highly incremental, and virtually no one individual or individual firm has been indispensable.

²⁸Source: Private INS data. See <http://heather.cs.ucdavis.edu/itaa.html>.

²⁹N. Matloff, forthcoming academic paper.

³⁰National Research Council, *BUILDING A WORKFORCE FOR THE INFORMATION ECONOMY*, National Academies Press, 2001.

7 My Proposal for Reform

Note: Meaningful, useful reform of the H-1B and other guest-worker programs will presumably occur as a synthesis of a number of diverse ideas. The reforms outlined here represent my own views, and are not intended to negate proposals made the Programmers Guild and other labor advocacy groups.

7.1 Goals/Requirements

Reform must address the following points:

- Reform must remove the employers' ability to attain both Type I and Type II salary savings.
- Guest workers must be allowed full mobility in the labor market, during the *entire* time they are being sponsored for green cards.
- All employers must be covered, especially including the large firms.
- Not only H-1B, but also L-1 and other similar visas should be covered.
- The guest worker and employer-sponsored green card processes must be simplified and expedited, and bureaucracy must be greatly reduced or eliminated.
- Reform of the H-1B program should NOT involve establishment of training programs. We already have a surplus of Americans with the needed skills; employers simply do not want to use them, preferring the cheap labor of H-1Bs and other foreign workers. U.S. firms are laying off Americans and replacing them with foreign workers, in many cases with the "training program" being that the Americans are forced to train their foreign replacements.
- In considering the viewpoints of interested parties, motivations must be understood. While the motivations of labor organizations, industry trade groups and so on are obvious, many people do not realize the "hidden agenda" of some of the other entities involved. It should be kept in mind that the National Science Foundation (NSF) and universities, both of them highly active players in the H-1B lobbying scene, have very severe biases in favor of an expansive H-1B program.³¹

7.2 A Comprehensive Reform Proposal

This program would replace H-1B, L-1 and other guest-worker programs used to import technical workers.³² However, for brevity I will simply use the term *H-1B* here.

³¹The NSF has explicitly called for the importation of foreign scientists and engineers in order to suppress Ph.D. salaries. See Eric Weinstein, HOW AND WHY GOVERNMENT, UNIVERSITIES, AND INDUSTRY CREATE DOMESTIC LABOR SHORTAGES OF SCIENTISTS AND HIGH-TECH WORKERS, NBER, Harvard University, 1998.

The universities have enormous incentives to toe the industry party line concerning H-1B and industry claims of a software labor shortage. They count on industry for large donations of equipment, research funds and even the construction of entire buildings, and they are major users of the H-1B program themselves. See an extensive analysis in my updated congressional testimony.

³²I am often asked about the related issue of *offshoring*, i.e. shipping software development work abroad. In spite of all the recent press coverage, offshoring only comprises about 1% of U.S. software development work (other offshoring work, such as call centers, is beyond the scope of my expertise and interest), and I do not believe it will ever become more than, say, 5% or so. It is simply too difficult to do software development by remote control, no matter how good one's communications technology is. This, for example, is why U.S. employers bring the H-1Bs here, rather than simply offshoring the work. Note, by the way, that offshored projects typically include an H-1B/L-1 component as well. See my forthcoming paper for details.

Here is an outline of my proposal:

- To be eligible to an H-1B, the employer would be required to have not have laid off Americans in similar jobs within the last 6 months, and not employ H-1Bs in more than 15% of its technical workforce.
- An employer who wishes to hire an H-1B would be required to advertise the job on a central Dept. of Labor (DOL) Web page for 30 days. If the employer did not hire an American during this period, the employer would have automatic permission to hire the H-1B.
- The wage paid to an H-1B would be required to be at least the national median for all workers in the field, including those with all levels of experience.
- After hiring the H-1B, the employer would update the entry in the database, stating the qualifications of the H-1B who was hired.³³
- The visa would be valid for 3 years. During this time, the worker could move from employer to employer at will, providing that each new employer goes through the 30-day ad procedure on the DOL database.
- If the worker were to stay employed in the tech field for all but 60 days during the 3-year period, the worker would be deemed as having proved his/her value to the economy, and would automatically be granted permanent-resident (i.e. green card) status.
- If on the other hand, the worker were to become unemployed for more than 60 days, he/she would be required to leave the country within 15 days.
- The law would explicitly state that employers must give hiring priority to Americans. An employer would not be allowed to reject an American job applicant in favor of an H-1B by saying the American is overqualified, or by overspecifying skills requirements.
- A Commission on Technical Guest Workers, with regional branches, would be established within the DOL. Any American who felt he had been wrongly rejected for a position in favor of an H-1B would be able to file a simple, convenient Web-based challenge. If the Commission were to find in a challenger's favor, the employer would be required to offer a similar position to the petitioner. Neither party would be allowed to appeal a decision by the Commission.
- The normal yearly cap on guest workers would be set at 65,000. The Commission on Technical Guest Workers would have the power to increase that number by 20% in a given year if unusually rapid economic expansion warranted it; larger increases would be left to Congress.

7.3 Justification

Note what is missing from this proposal—bureaucracy and delay. The adjudication of the work visa and green card would be almost completely automated, and should work in “real time.” The system would eliminate the need of large firms to maintain special Immigration Departments, and small firms would find that their expenses for legal fees would be reduced to a small fraction of their current level.

³³The employer would inform DOL as to the salary paid, but need not put it in the database.

The safeguards in my proposal against Type I and Type II wage abuse by employers take on different forms. I guard against Type I savings by eliminating the indentured servitude problem which currently is the major enabler of those savings. To guard against Type II savings, I have the provision that the guest worker be paid at least the median for the given profession, a requirement that the data show would be effective in eliminating much of this kind of abuse of the H-1B program. In addition, the system has recruitment and anti-layoff provisions, makes the entire process transparent to American workers in a timely manner, and establishes the Commission on Technical Guest Workers, which would give them a clear, easy avenue through which they could file complaints.