

# IMMIGRATION POLICY FOCUS

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## THE GLOBAL BATTLE FOR TALENT AND PEOPLE

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## ABOUT THE AUTHOR

Stuart Anderson served as Executive Associate Commissioner for Policy and Planning and Counselor to the Commissioner at the Immigration and Naturalization Service from August 2001 to January 2003. Mr. Anderson spent four and a half years on Capitol Hill on the Senate Immigration Subcommittee, first for Senator Spencer Abraham and then as Staff Director of the subcommittee for Senator Sam Brownback. Prior to that, Mr. Anderson was Director of Trade and Immigration Studies at the Cato Institute in Washington, D.C., where he produced reports on the military contributions of immigrants and the role of immigrants in high technology. He has an M.A. from Georgetown University and a B.A. in Political Science from Drew University. Mr. Anderson has published articles in the *Wall Street Journal*, *New York Times*, *Los Angeles Times* and other publications.

# EXECUTIVE SUMMARY

America's strength lies in its openness and dynamic character. Current concerns about the U.S. economy should not distract from an understanding that in the long term America's economic success requires the nation to attract 1) skilled professionals from across the globe to increase the competitiveness of American companies and 2) workers at the lower end of the skill spectrum to fuel the growth of the U.S. labor force, filling jobs created by the aging of the population.

An extensive review of government, academic and private-sector materials and research reveals the following findings in this report:

**1)** With current levels of immigration, the U.S. labor force will grow 18.9 percent by 2030, while countries with more restrictive immigration policies such as Japan, Germany and Italy will see their adult working populations decline by 15 percent or more. Immigration is the crucial factor in determining whether the United States labor force will experience growth or become stagnant. This U.S. labor growth, led by immigration, will be a key to economic growth and the funding of health and retirement benefits for baby boomers.

**2)** Despite recent problems in the high technology sector, the future appears more positive, with the Bureau of Labor Statistics projecting 47 percent growth in science and engineering jobs overall and an 82 percent increase in computer-related jobs between 2000 and 2010, compared to 15 percent growth for all occupations. Computer software engineers are projected to increase by 90 to 100 percent.

**3)** A large drop in spending on computers and related hardware and slower growth in spending on software would appear to be the primary reasons for job difficulties in certain high technology sectors, not the entry of foreign-born professionals.

**4)** Immigrant professionals contribute significantly to job creation in the United States, with Indian and Chinese entrepreneurs alone heading 29 percent of Silicon Valley's technology businesses. Collectively these companies accounted for \$19.5 billion in sales and 72,839 jobs in 2000, according to the University of California at Berkeley.

**5)** Foreign-born individuals are key contributors to innovation, making up 28 percent of all individuals with Ph.D.s in the United States who are engaged in research and development in science and engineering.

**6)** Contrary to concerns that foreign-born professionals in the United

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States are “cheap labor” and undercut the wages of U.S. professionals, data indicate that foreign-born professionals working in the United States actually earn more than their native counterparts when controlled for age and the year in which a science or engineering degree is earned, according to the National Science Foundation. Moreover, the fact that it is illegal to pay an H-1B visa holder less than a comparable native professional, combined with the difficulty of employers maintaining separate pay scales for H-1Bs and other employees working alongside them, as well as the ability of H-1B visa holders to change jobs and seek the market wage for their services, leads one to the conclusion that critics are exaggerating any widespread use of employees on H-1B visas as “cheap labor.”

**7)** An examination of the data reveals that H-1B totals do not show rampant hiring by U.S. employers without regard to market conditions. In fact, H-1B hiring appears to rise and fall with economic conditions, as one would expect. In 2001, the number rose to 164,000. However, in FY 2002, the number dropped by half – to 79,100, well below the 195,000 ceiling and equaling approximately 0.058 percent of the total U.S. labor force.

**8)** Armed with new powers, as well as additional funding derived from employers’ H-1B fees, the Department of Labor has increased enforcement of H-1B rules. Despite this increased enforcement, the number of serious violations remains low both in total and as a percentage of H-1B petitions approved, indicating that abuse is not widespread. In 2001, only 9 violations were deemed willful or requiring debarment, while there were 7 such violations in 2002.

**9)** In addition to billions of dollars paid by U.S. employers in training their own employees and taxes for education, fees paid by U.S. employers to hire foreign-born professionals on H-1B visas have totaled more than \$692 million over the past 5 years and will exceed \$1 billion if the current fee continues for at least two more years. These fees have helped provide training to more than 55,600 U.S. workers and have funded scholarships for more than 12,500 U.S. students in science and engineering.

Curtailing legal immigration to the United States or further impeding the flow of skilled foreign professionals to America will hurt the nation’s competitiveness and its leadership in the world. Such actions would slow U.S. labor-force growth, inhibit innovation inside the United States, reduce job growth, and encourage increased efforts to outsource and place overseas high technology jobs and centers for research and development. In addition, other nations appear poised to accept skilled foreign professionals in greater numbers to enhance the competitiveness of their industries. While we must take appropriate measures to protect U.S. security, an approach that facilitates the lawful entry of workers at the lower end of the skills spectrum and openness to skilled professionals at the high end will help America prosper in the global battle for talent and people.

# THE GLOBAL BATTLE FOR TALENT AND PEOPLE

Current concerns about the U.S. economy should not distract from an understanding that America's long-term economic success requires the nation to attract skilled professionals and workers of all skill levels to fuel the growth of the U.S. labor force. By taking a longer-term view, policy makers will recognize the important competitive advantage that America maintains – and should not wish to lose – in the global battle for talent and people.

Immigration will exert a crucial influence on America's economic growth and prosperity well into the 21<sup>st</sup> century. America's openness to immigration has created the opportunity for the country to remain vibrant and growing, while our allies in Western Europe and parts of Asia – absent a change in their policies – may become stagnant due to their lack of openness and falling birth rates. This dynamic is drawing greater attention around the world. Recently released U.N. population projections show that a number of developed countries will fail to grow in the coming years, while many less-developed nations may receive a demographic dividend from their growing labor force.

“The U.S. is better off than Japan or Western Europe, thanks to a higher birth rate and a more open immigration policy that lets it maintain a larger pool of highly educated young people in its work force,” notes the *Wall Street Journal*.<sup>1</sup> Barring changes in policies, such as welcoming more immigrants, some countries expect to experience serious population declines that could bring significant negative consequences for everything from the economy to funding retirement and health care benefits for aging populations. Japan expects to see its population decline. Russia's population is forecast to fall from 145 million today to less than 105 million by 2050.<sup>2</sup>

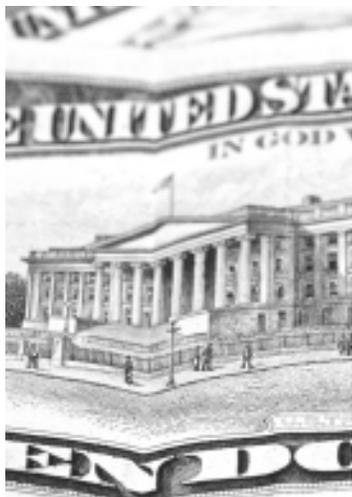
The Organisation for Economic Cooperation and Development (OECD) in Paris estimates that, while the 15 nations of the European Union now have 2.6 working adults for every person over 65, by 2050 that number will shrink to only 0.8 work-age adults, making current policies unsustainable.<sup>3</sup> Federal Reserve Board Chairman Alan Greenspan has noted that funding future retirees' needs also challenges America. “The aging of the population in the United States will have significant effects on our fiscal situation. In particular, it makes our social security and Medicare programs unsustainable in the long-run, *short of a major increase in immigration rates*, a dramatic acceleration in productivity growth well beyond historical experience, a significant increase in the age of eligibility for benefits, or the use of general revenues to fund benefits.”<sup>4</sup>



Photo by Scott Bauer, ARS/USDA.

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## KEY ROLE OF IMMIGRATION IN U.S. ECONOMIC AND LABOR FORCE GROWTH



Economic growth propels nations and their people to higher standards of living and prosperity. Two key elements of economic growth are productivity increases and labor-force growth. Without a growing labor supply, productivity increases would have to bear a significant burden for a country's economic growth. Moreover, absent a growing labor supply, many productivity gains that are the result of scale and network economies would not be possible. In Dale W. Jorgenson's analysis of U.S. economic growth, he concluded that U.S. economic expansion has been the result of a growth in capital and labor. While Jorgenson ranked capital inputs first, he viewed labor-force growth as next in importance.<sup>5</sup>

Economists Frank T. Denton and Byron G. Spencer examined the impact of immigration on economic growth in Canada. Given the similarities in the demographics of the United States and Canada, their findings are illustrative. Like the United States, Canada has found that an increasing percentage of its labor-force growth is derived from immigrants. As Denton and Spencer point out, the data "make clear the extent to which labor force growth, and hence economic growth, have come to depend on immigration in the past decade." Given past low fertility rates and the leveling off in the workforce participation rates of women, also similar to the United States, Canada's future is dependent on immigrants. "The economy is now very largely dependent on immigration for labor force growth, and that situation is likely to continue far into the future," write Denton and Spencer. "The rate of growth of total GDP [Gross Domestic Product] is linked closely to the rate of growth of the labor force, and that in turn is linked closely to the level of immigration."<sup>6</sup>

For the United States, immigration is the crucial factor in determining whether the country experiences rising or stagnant labor-force growth. The key measurement is working-age adults (people age 20 to 64). In its report *The New Americans*, the National Academy of Sciences projected future U.S. labor-force growth and determined that current or higher immigration levels translate into fairly healthy growth, particularly when compared to other nations.<sup>7</sup>

The overall number of workers available to accommodate employer expansion and growth - and to help fund the retirement and health care of the elderly - differs significantly depending on the level of immigration. Under current levels of immigration, the U.S. labor force would increase to 240 million by 2050. However, under zero immigration, the number would be 51 million below the level currently projected for the U.S. workforce in 2050.<sup>8</sup>

# FUTURE COMPETITION FOR IMMIGRANTS

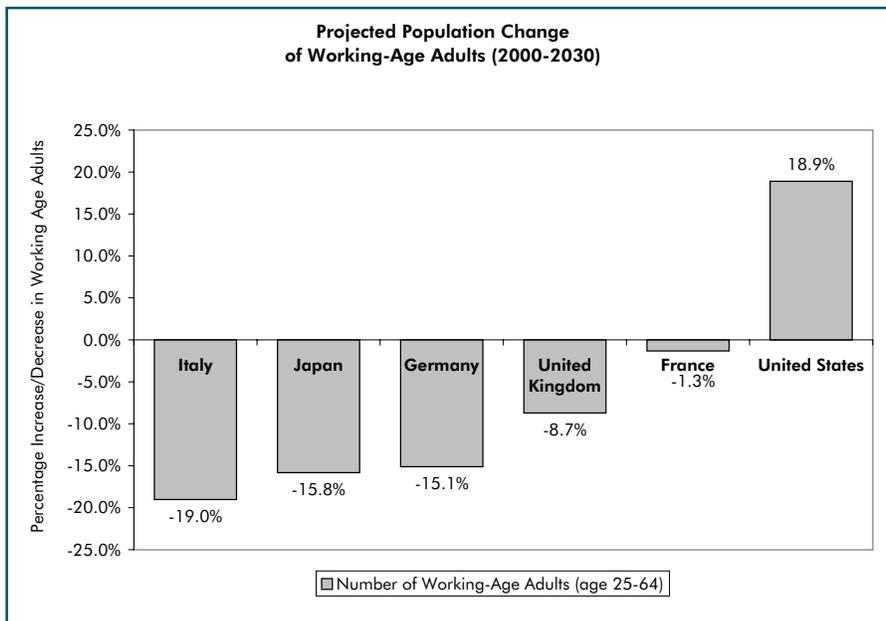
In testimony before the Senate Special Committee on Aging, Hudson Institute Vice President Gary L. Geipel forecast an “intense Battle for Talent” in the years ahead between the United States and other nations. He pointed out that under current projections, the domestic supply of workers will decline in many developed countries. However, due primarily to immigration, the United States will not suffer the same fate. While countries such as Japan, Germany and Italy will see their populations age 25-64 shrink by more than 15 percent by 2030, the working-age population of the United States is projected to increase by 18.9 percent, barring changes that reduce current levels of immigration.<sup>9</sup> (See Figure 1)

Geipel testified that the aging of a population exerts a “double whammy” on the supply of both high-skilled and low-skilled workers. First, older citizens retire at greater rates at the same time that “the cohort of young and freshly minted university graduates declines due to low birth rates.” Second, Geipel notes, “An increasing wage premium for skilled work can be expected to lure a larger share of a shrinking pool of younger workers away from low-skilled service jobs, even as demand for low-skilled service workers exerted by the elderly (in the entertainment, travel, nursing home, and personal-services industries, for example) increases along with their share of the population.”<sup>10</sup>



Photo by Scott Bauer, ARS/USDA.

FIGURE 1



Source: UN data (2001), assembled by CSIS Global Aging Initiative, as cited in Testimony of Gary L. Geipel, “The Aging/Workforce Equation,” Senate Special Committee on Aging, February 27, 2003.

## THE BATTLE FOR TALENT

In 1999, Japan allowed in 240,936 foreign professionals in high-skill visa categories. That represents a 75 percent increase since 1992.

These demographic trends set up a competition – a battle – for people, skills and talents. “Attractiveness to immigration clearly is a major distinguishing factor between countries,” testified Geipel. “Countries able to attract and retain large numbers of young immigrants fare better in the Battle for Talent. The immigration policy competition of recent years – with the proliferation of H-1B-type programs in most of the developed countries – is but one element of this attractiveness. Arguably more important are a country’s cultural tolerance of immigration, the existence and adequacy of institutions designed to assimilate immigrants, and the presence of existing immigrant communities that act as magnets to potential new arrivals.”<sup>11</sup>

Geipel also points out that nations able to attract foreign students retain an advantage in the global competition for talent, since a student obtaining a degree in a foreign country has a good chance of becoming available to that country’s employers after finishing his or her studies. Fifty percent of foreign students who earned Ph.D.s in science and in engineering at U.S. universities reported in 1999 that they had accepted offers to stay in the United States, which is consistent with historical averages. A higher percentage indicated they had formulated plans to stay in the United States.<sup>12</sup>

One should not conclude, however, that these top-notch foreign students will always decide to stay in America. The more cumbersome the visa and immigration laws and procedures become to enter or stay in the United States, the less likely it is that individuals will do so. This is particularly true since for foreign-born Ph.D.s “opportunities are expanding for returning to their home countries or for collaborative research and networking with home-country scientists,” according to the National Science Foundation.<sup>11</sup> To date, Taiwan and South Korea have done the best job at absorbing foreign-educated Ph.D. scientists and engineers, with recruitment sometimes occurring “after a distinguished science career abroad.” In addition, Japan, Germany and Australia are enrolling an increasing percentage of the world’s foreign students in technical fields.<sup>12</sup>

Despite a relatively closed society that has prevented Japan from admitting a significant number of immigrants annually, Japan has made serious efforts to attract more skilled foreign professionals, viewing this as important to the competitiveness of its industries. In 1999, Japan allowed in 240,936 foreign professional in high-skill visa categories. That represents a 75 percent increase since 1992.<sup>13</sup>

David Stewart-Patterson, senior vice president for policy at the Canadian Council of Chief Executives, a group of leading Canadian companies, has spoken about the global competition for talent and investment – and the

explicit connection between the two. “The availability of skilled and talented people is an increasingly important factor in determining which communities will win new investment and enjoy rising prosperity,” according to Stewart-Patterson.<sup>16</sup>

He notes that Toronto recently attracted an investment from a major multinational corporation due to its high concentration of skilled people and its openness to immigrants. “What propelled Toronto to the top of the list in winning this investment was the fact that it could offer a deep pool of people with the necessary skills at competitive prices who also could deliver services to customers in 23 languages,” said Stewart-Patterson. “Toronto’s ability to attract and integrate immigrants from many cultures around the world proved decisive in winning a major, high-technology investment.”<sup>17</sup>

Canadians recognize “the global struggle to attract and retain skilled and mobile people.” The country recently changed its laws to make it easier for skilled professionals to come and stay permanently in Canada. The new Immigration and Refugee Protection Act, which took effect June 28, 2002, made a series of modifications to existing Canadian immigration law, including adding greater flexibility for skilled immigrants by allowing professionals on temporary visas to become permanent residents inside the country rather than leaving. The legislation also liberalized the evaluation of skilled workers to include the full range of their skills, rather than solely those in their intended occupation. (Skilled workers can enter without an employer sponsor in Canada.) “Immigration rules can have a huge impact in either encouraging or discouraging people flows. Factors such as the ease of bringing recruits into Canada, the procedures for recognizing foreign credentials and the employment opportunities open to spouses and children can make or break a company’s recruitment efforts.”<sup>18</sup>



*Photo by ARS/USDA*

## A LONG TERM LOOK AT THE HIGH TECH SECTOR

While the long-term competitive pressures facing America should be clear, it is often difficult to maintain focus beyond today’s problems. Given current concerns about the economy, some are pessimistic about the outlook for high-skill jobs, particularly in the technology sector. There is no doubt that the employment situation in certain high technology areas has grown more difficult. Yet to provide some perspective on the current situation it is useful to take a longer-term look at the data.

In 1980, only 177,000 jobs in mathematics and computer sciences existed in the United States, according to the National Science Founda-



tion. Over the next 20 years, by the year 2000, that number had increased by 623 percent, to 1.28 million jobs.<sup>19</sup> It is logical that this type of explosive job growth might be followed by a slowdown or a temporary reversal. In addition, it is understandable that expectations have been raised among many who in the past never could have considered jobs in high technology because the jobs did not exist. But it also further illustrates an often misunderstood economic concept: Simply put, there is no such thing as a fixed number of jobs. Despite setbacks the last few years, the number of jobs in the United States has more than doubled since 1960, while entrepreneurs and corporations have created entire new industries. Immigrants, like natives, both fill and create jobs, through entrepreneurship, innovations and spending on food, housing, clothing and other items.

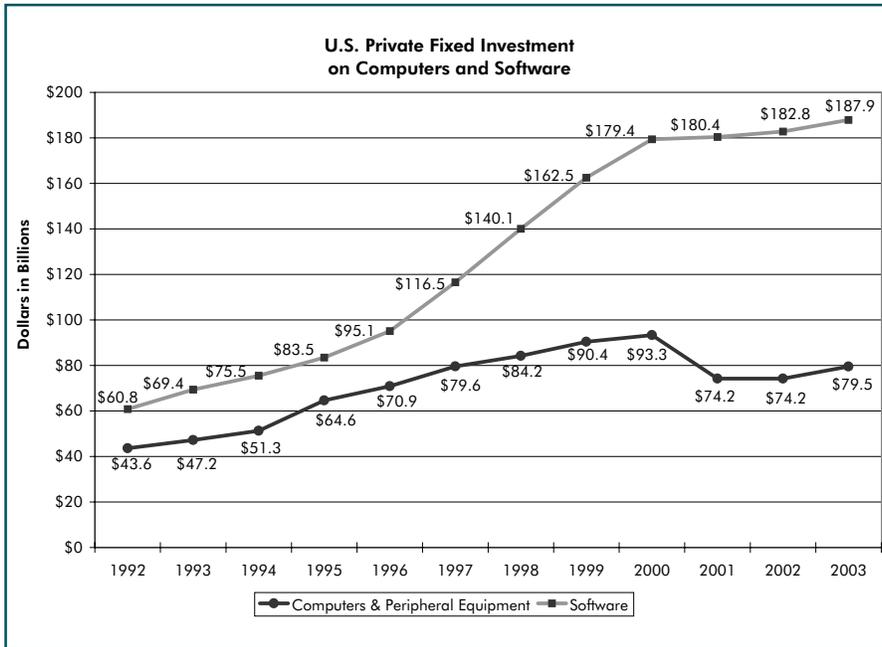
Given current emotions, one would think that projections in the high technology sector are universally negative. In fact, the opposite is the case. Between 2000 and 2010, the Bureau of Labor Statistics projects 47 percent growth in science and engineering jobs overall and an 82 percent increase in computer-related jobs. That is compared to 15 percent growth for all occupations. Computer software engineers are projected to *increase by 90 to 100 percent* between 2000 and 2010.<sup>20</sup>

## COMPETE OR SURRENDER IN THE GLOBAL BATTLE FOR TALENT

Some have argued that the United States should abandon the global battle for talent and instead adopt an approach akin to autarky - producing products and services in the United States with U.S.-only inputs, particularly only native-born professionals. Some have blamed foreign-born professionals for actually harming the U.S. economy or being responsible for current layoffs in the high technology sector. The president of the Institute of Electrical and Electronics Engineers (IEEE) USA has stated that foreign-born professionals have had “a very substantial and negative effect on the economic conditions of the United States.”<sup>21</sup>

However, the best available economic data indicate that recent job difficulties in certain high tech areas cannot be blamed on foreign-born individuals. A large drop in spending on computers and related hardware and slower growth in spending on software would appear to be the primary reasons for job difficulties in certain high technology sectors. This is particularly apparent given the relatively small number of foreign-born professionals who newly enter the U.S. labor market each year (at the same time other foreign-born professionals leave the labor market) and the responsiveness to market conditions in the hiring of such individuals by U.S. employers. (See later discussion of annual H-1B visa numbers.)

FIGURE 2



Source: *Economic Report of the President 2003*, Table B-18. U.S. Department of Commerce, Bureau of Economic Analysis. The year 2003 includes the average of the first two quarters of 2003.

As Figure 2 illustrates, between 2000 and 2001, private fixed investment in the United States on computers and peripherals dropped by approximately 20 percent, from \$93.3 billion to \$74.2 billion. By 2002, those figures had only started to recover. The drop came after a near tripling in private fixed investment on computers and peripherals between 1991 and 2000. Private fixed investment on software rose steadily every year from \$95 billion in 1996, to \$116.5 billion in 1997, \$140.1 billion in 1998, \$162.5 billion in 1999, and \$179.4 billion in 2000. From 2000 to 2001, private fixed investment on software stayed almost flat, rising only to \$180.4 billion.<sup>22</sup> However, it appears the trend is positive. By (the first 6 months) of 2003, private fixed investment on software has risen to \$187.9 billion, with private fixed investment on computers and peripheral equipment increasing to \$79.5 billion in 2003, a 7 percent increase from 2002.

There are further signs that the high technology sector is poised for a rebound. IDC, a leading technology forecasting firm, projects that, after two years of decline, global technology spending will increase by 2 percent in 2003. In addition, “IDC sees tech spending surging 6 percent in 2004 as consumers continue to buy digital cameras, DVD players, and cell phones, and as companies are forced to replace aging PCs and servers,” according to *Business Week*.<sup>23</sup>

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# EVALUATION OF H-1B VISAS

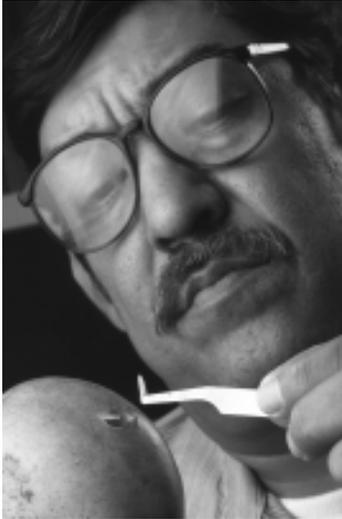


Photo by ARS/USDA

For the United States, the ability to compete in the global battle for talent depends in large measure on the treatment of foreign-born professionals who fit in the H-1B visa category. While the purpose of this paper is not to exhaustively refute allegations related to foreign-born professionals who work on H-1B visas, it is useful to respond to a few of the arguments that have been made in the press and elsewhere. It is argued that H-1B visa holders earn vastly lower salaries than similarly-skilled Americans, that they are “indentured servants” here in America, and that their U.S. employers engage in widespread fraud and abuse. Let’s take these allegations one at a time.

First, under the law, employers are required to pay foreign professionals on H-1B visas the higher of the prevailing or actual wage for the job being offered. Department of Labor data on the “prevailing wage” groups all employees into two categories: 1) entry-level and 2) above entry-level. This over-simplified categorization of workers results in individuals with two years of experience being grouped in the same category as workers with 10-20 years of experience, thus resulting in an artificially higher required wage for someone with modest experience.

Contrary to concerns that foreign-born professionals in the United States are “cheap labor” and undercut the wages of U.S. professionals, data indicate that foreign-born professionals actually earn more than their native counterparts when controlled for age and the year a science or engineering degree is earned. The National Science Foundation reports: “Because foreign-born individuals in the labor force who have S&E (science and engineering) degrees are somewhat younger on average than natives, controlling for age and years since degree moves their salary differentials in a positive direction—in this case, making an initial earnings advantage over natives even larger—to 6.7 percent for foreign-born individuals with S&E bachelor’s degrees and to 7.8 percent for those with S&E Ph.D.s.”<sup>24</sup>

Some of this difference results from the foreign-born being more likely to enter the job market in private sector companies than in public or private universities, which pay less. Controlling for type of employer and occupation shows a negligible difference between foreign-born and native at the bachelor’s, master’s and Ph.D. levels. Although many in the National Science Foundation data set may no longer be on H-1B visas, others are, and the ones that are not would in the majority of cases have worked in that status for some period of time.

It is also important to take into account the money - and hassle - associated with hiring a foreign-born professional on an H-1B. To hire a foreign national on an H-1B visa a U.S. employer must incur the following

costs: \$1,500 to \$2,500 in legal fees; \$1,000 training/scholarship fee; \$1,000 “premium processing” fee (not required but often used to overcome long processing times); and \$125 or more in additional incidental costs (Federal Express, etc.). These combined costs total between \$2,600 and \$4,600. That does not include additional in-house human-resources costs associated with the extra work involved in the employment of foreign nationals or the time lag in hiring a foreign national vs. a native-born individual. Sponsoring a foreign national for permanent residence, which many large technology companies, in particular, will do, often costs \$10,000 or more.

These costs and the National Science Foundation data noted above do not show the type of systematic underpayments to the foreign-born that would justify the charge of “cheap labor.” Moreover, the fact that it is illegal to pay an H-1B visa holder less than a comparable native professional, combined with the difficulty of employers maintaining separate pay scales for H-1Bs and other employees working alongside them, as well as the ability of H-1B visa holders to change jobs and seek the market wage for their services, leads one to the conclusion that critics are exaggerating any widespread use of employees on H-1B visas as “cheap labor.”

Related concerns that foreign-born professionals increase unemployment in a field also are not empirically supported. In examining those in the United States who have left their field of study, perhaps because they could not find appropriate employment, the data show that the higher the proportion of foreign-born in a field, the less likely someone is to be “involuntarily” out-of their field at the Ph.D. level. Examining data in the 1990s, the same held true for unemployment rates at the Ph.D. level, with no correlation between a greater concentration of foreign-born and higher unemployment rates in a field.<sup>25</sup> In addition, National Science Foundation data show that in a given field “the higher the proportion of foreign-born, the higher the salary.”

Another criticism is that H-1B visa holders are tied to one employer and, therefore, are “indentured servants.” This appears to be largely myth. With a competitive labor market in the United States, foreign-born professionals often change employers in search of better opportunities. Immigration attorneys report that they frequently deal with cases of an H-1B professional moving from one employer to another. In fact, Congress made it easier to do so, allowing an H-1B professional to change to another employer *prior* to the approval of all the paperwork associated with an H-1B petition.

Congress also recognized that U.S. government delays in labor certification and green-card processing could prevent someone from leaving an employer. Therefore, Congress twice changed the rules to allow foreign nationals to switch to other employers if their Department of Labor or immigration filing for permanent residence (green card) has taken more than 365 days. To the extent that a problem still exists in this area, the solution is to speed up government processing.

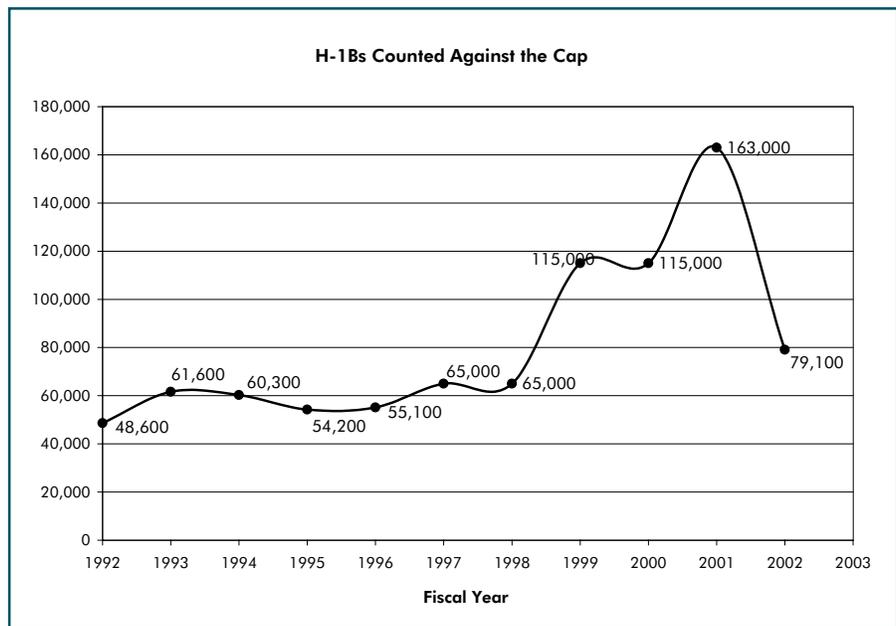
Contrary to concerns that foreign-born professionals in the United States are “cheap labor” and undercut the wages of U.S. professionals, data indicate that foreign-born professionals actually earn more than their native counterparts when controlled for age and the year a science or engineering degree is earned.

Finally, in examining the issue of possible abuse it is useful to look at two areas – the extent to which new H-1B visa hiring has responded to the labor market and DOL enforcement activity.

An examination of the data reveals that H-1B totals do not show rampant hiring by U.S. employers without regard to market conditions. In fact, H-1B hiring appears to rise and fall with economic conditions, as one would expect. In FY2001, the number rose to 164,000. However, in FY 2002, the number dropped by half – to 79,100, well below the 195,000 ceiling and equaling approximately 0.058 percent of the total U.S. labor force. The H-1B Petitioner Fee account receipts as of May 1, 2003, indicate that H-1B visa totals in FY 2003 should be similar to those in FY 2002. (Note: Approximately 40 percent of the individuals who received H-1B status in 2001 worked in jobs that were not considered “computer-related occupations,” according to INS statistics.)<sup>26</sup>

From FY1992 to FY1995, 60,000 or fewer individuals per year obtained new H-1B visas. Then, from FY1997 to FY2001, the booming high technology sector created demand for the increased hiring of both native and foreign-born professionals. In many cases, U.S. employers hired the foreign-born professionals after they completed undergraduate or graduate studies in the United States. Increased hiring of foreign-born professionals was not the result of a concerted effort to find and recruit foreign workers. Rather, in

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Source: Dept. of Homeland Security. Note: In FY 1997, 5,000 petitions were carried over and applied to the FY 1998 cap. In FY 1998, 14,000 petitions were carried over and applied to the FY 1999 cap. In FY 1999, an audit showed the cap was exceeded by 22,000 and thousands of other petitions were carried forward to FY 2001. In FY 2000, the cap was reached July 21, 2000, and under legislation thousands of approved petitions were not included in the cap count. In FY 2001, the new cap of 195,000 was not reached; legislation exempted from the cap count initial beneficiaries employed by non-profit organizations.

the course of normal recruiting, the employers hired both native and foreign-born individuals. “In the United States in 1999, 10 percent of those holding baccalaureate degrees in S & E [science and engineering] were born abroad. This figure was 20 percent for master’s degree recipients and 25 percent or greater for doctorate-holders (much higher in some engineering and computer science fields).”<sup>27</sup> Therefore, it is natural that employers would hire foreign-born individuals for a portion of available positions. Approximately 40 percent of those hired on H-1B visas possess a master’s degree or higher, according to INS data.<sup>28</sup>

The statutory cap of 65,000 H-1B visas first was reached shortly before the end of FY 1997. In FY 1998, the “hot” high tech economy made the 65,000 cap prove woefully inadequate, with the limit on hiring new individuals on H-1B visas reached by Spring 1998. Efforts to increase the H-1B cap passed easily in the Senate but ran into opposition from the House Judiciary Committee and the Clinton Administration. Protracted negotiations raised the visa cap to 115,000 in FY 1999 and FY 2000, and to 107,500 in FY 2001. When these increases proved inadequate Congress again passed an H-1B increase, this time raising the ceiling to 195,000 for fiscal years 2001, 2002 and 2003. An exemption for H-1Bs hired by non-profit organizations was included. The current ceiling of 195,000 reverts back to 65,000 on October 1, 2003, unless Congress enacts further legislation in this area.

### Percentage of Master’s Degrees Awarded to Foreign Students in 2000

<b>Computer Science</b>	48%
<b>Engineering</b>	40%
<b>Mathematics</b>	35%
<b>Physical Science</b>	41%

Source: U.S. Department of Education National Center for Education Statistics, Integrated Post-Secondary Education Data System.

## TIGHTER RULES AND INCREASED ENFORCEMENT

In 1998, together with a temporary increase in H-1B visas, Congress significantly toughened enforcement rules related to H-1Bs by adding to the law significant provisions. Much of the new enforcement power was directed at so-called “job shops” that possess a significant portion of H-1B visa holders in their companies.

One particular area of focus was protecting Americans from being laid off in order to hire H-1B visa holders. Under the new law, a company that is H-1B dependent (15 percent or more of the company’s employees are H-1B visa holders) must attest that it will not lay off an American employee in the same job 90 days before or after the filing of a petition for an H-1B professional. Such an H-1B dependent company acting as a contractor must attest that it similarly will not place an H-1B professional in *another company* to fill the same job held by a laid off American 90 days



before or after the date of placement. And, in a provision that applies to *all* companies, regardless of their level of H-1B usage, if a U.S. employer commits a willful violation and underpays an individual on an H-1B visa and replaces an American worker, that employer will be hit with a 3-year debarment from all employment immigration programs and be slapped with a \$35,000 fine per violation. Note, none of these provisions would apply to any company that lays off employees and gives the work to a company overseas or to a company without H-1B professionals.

The law also significantly increased penalties and added new violations, such as punishing employers for not offering the same health benefits to H-1B employees and explicitly making it illegal to “bench” an H-1B visa holder, meaning the individual sits idle without pay waiting for an assignment. The bill increased by five-fold – to \$5,000 – fines for willful violators of the H-1B program and doubled the debarment period for such violations from one to two years.

In addition, Congress granted additional investigative authority to the Department of Labor (DOL). It gave DOL authority to initiate “spot” investigations, without a complaint filed, of employers found to have committed prior willful violations. Congress also gave DOL the authority to investigate suspected willful and serious violations of H-1B visas if it receives specific and credible evidence of such violations and receives a certification from the Secretary of Labor.

Armed with these new powers, as well as additional funding derived from employers’ H-1B fees, the Department of Labor has increased enforcement of H-1B rules. Despite this increased enforcement, the number of serious violations remains low both in total and as a percentage of H-1B petitions approved, indicating that abuse is not widespread.

*Business Week* recently cited Department of Labor H-1B enforcement actions to argue that abuses are “widespread.”<sup>29</sup> If there are widespread abuses, then DOL data do not show it, since relatively few cases show willful violations by employers as opposed to likely difficulty in following complex rules.

In particular, an analysis of Department of Labor cases reflects increased enforcement action by DOL. The data show that the number of final agency actions increased from 32 in 1999 to 58 in 2000, 60 in 2001 and 135 in 2002. The cases in these four years involved 1,323 individuals who were owed back wages. Between 1999 and 2002, approximately 470,000 new H-1B visas were issued, which means that back wages were owed to 0.28 percent of employees who received H-1B status during this period, a small proportion. More importantly, in only 15 percent or fewer of the cases did the Department of Labor determine the violation to be “willful” or requiring debarment (9 cases in 2001 and 7 in 2002). In many instances, it appears the difficulty of complying with complex DOL regulations may have been the cause of the complaint and the DOL finding.

Another area where allegations of abuse have surfaced is in the use of L-1B visa holders as contract labor for third party companies. L-1Bs are intra-company transfers, current employees of a multi-national company who possess “specialized knowledge” and enter to work for affiliated offices in the United States for a temporary period of time. There have been a number of press articles citing cases where Americans are alleged to have been laid off – or an existing consulting company’s contract canceled – and a company with employees on L-1B visas performing duties related to a new domestic outsourcing contract. There have been no documented cases of illegal behavior or a specific enforcement action based on these types of cases. However, current L-1B regulations already contain protections against these apparent abuses. According to Stephen Yale-Loehr, Adjunct Professor of Law at Cornell Law School, “current law prohibits using an L visa to send a foreign national to the United States to work alongside the workforce of a third party, under the control of the third party, performing the same kind of work done by the third entity’s employees and displacing U.S. employees.”<sup>30</sup>

Nevertheless, due to the current state of the economy, the issue has attracted attention in Congress and several legislative proposals have been introduced in response. It is important for Congress to tread lightly in this area. In testimony before the Senate Immigration Subcommittee, attorney Daryl Buffenstein, representing the Global Personnel Alliance, stressed the need for any legislative solution to be targeted, arguing that this calls for a “surgical instrument,” not a sledgehammer. As Buffenstein points out, “It will hurt employment in the United States if we impede the ability of legitimate users to transfer managers and specialists between different affiliates of international organizations,”<sup>31</sup>

## H-1B FEE ACCOUNT: MONEY FOR JOB TRAINING AND SCHOLARSHIPS

An aspect of H-1B visas that has received little attention is the significant amount of money that goes each year toward the training of U.S. workers and scholarships for U.S. students – all paid for by U.S. employers. During the debate on an H-1B visa increase in 1998, a frequent comment was “Why doesn’t the U.S. do more to train and educate Americans in these fields?” While the problem of inadequate U.S. education in math and science goes well beyond the issue of H-1B visas, Congress did add a fee that would pay for Department of Labor skill grants and scholarships through the National Science Foundation (NSF). The fee is levied on each new H-1B professional hired and on a renewal of that individual’s H-1B status. (H-1B professionals can stay up to 6 years, with a renewal after three years.) In 1998, Congress slated the fee at \$500 but quickly doubled the fee to \$1,000 when a further increase of the H-1B

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ceiling was passed in 2000. Under the allocation of the fees set by Congress in 2000, 55 percent goes to job training, 23.5 percent to National Science Foundation scholarships, 15 percent to NSF's K-12 programs, 1.5 percent to INS processing and 5 percent for DOL processing and H-1B enforcement.

As of May 1, 2003, U.S. employers had paid over \$692 million in fees to the H-1B Petitioner Account.<sup>32</sup> That means if the fee were to continue for two more fiscal years – the fee sunsets on September 30, 2003, along with the increase in the H-1B ceiling – employers will have paid over \$1 billion to fund scholarships and job training through the H-1B program. This money, it should be noted, is on top of taxes employers pay to fund local schools, training spent on their own employees and scholarships funded privately by companies.

To date, more than 12,500 individual students have received scholarships to study in math or science disciplines. National Science Foundation staff indicates that the number is potentially far higher, since this figure only includes schools that have reported all their data and more than half of the existing programs are in the early stages of the grant period and may ultimately report more students.<sup>33</sup> According to the General Accounting Office (GAO), “The program is attracting a higher proportion of women and minorities than are included among computer science, engineering, and mathematics degree awardees.” GAO also interviewed some students. “One student told us that even though she excelled in math in high school, she only considered becoming a math major after she learned about the scholarship opportunity.”<sup>34</sup>

The General Accounting Office was surprisingly positive in its assessment of the skills training program operated by the Department of Labor. That may be because the program offers smaller grants to a diverse group of recipients. As of July 1, 2002, approximately \$197 million had been awarded to skill grants. Through December 31, 2002, 55,685 U.S. workers and professionals had either completed training, were in training, or were waiting for their training program to begin. Of the 16,000 participants who had enrolled for training through January 31, 2002, approximately half had completed the courses by that date. Of the participants about whom data were available “1,800 were placed in new or upgraded jobs, 1,600 increased their wages or salaries, 2,600 attained skill certifications, and 1,900 attained industry-recognized skill standards.”<sup>35</sup>

## CONCLUSION

Looking to the future is the task of policy makers and opinion leaders. Some may believe that immigration is good for the immigrant, the immigrant's family, and the employer who hires the immigrant, but are less certain about how it affects the United States. The stark contrast between America and countries that do not welcome immigrants helps answer that question. While countries in Europe and Asia will experience a shrinking pool of available workers, the United States, due to its openness to immigration, will continue healthy growth in its labor force and will reap the benefits of that growth. The challenges presented by demographic trends show that immigration continues to be in the best interest of Americans. Federal Reserve Board Chairman Alan Greenspan has stated that "Immigration, if we choose to expand it, could prove an even more potent antidote for slowing growth in the working-age population."<sup>36</sup>

However, curtailing legal immigration to the United States or further impeding the flow of skilled foreign professionals to America will hurt the nation's competitiveness and its leadership in the world. Such actions would slow U.S. labor-force growth, inhibit innovation inside the United States, reduce job growth, and encourage increased efforts to outsource and place high technology jobs and centers for research and development overseas.

Immigrant professionals contribute significantly to job creation in the United States, with Indian and Chinese entrepreneurs alone heading 29 percent of Silicon Valley's technology businesses. Collectively these companies accounted for \$19.5 billion in sales and 72,839 jobs in 2000, according to the University of California at Berkeley.<sup>37</sup> Companies like Sun Microsystems were started by foreign graduate students and later expanded their workforces considerably based on innovations made by other foreign nationals. It may strike some as ironic that complaints about immigrants or professionals on H-1B visas "taking" away jobs are often directed at companies that would not even exist (or would not have expanded) if not for America's openness to immigrants and foreign-born scientists and engineers. Foreign-born individuals are key contributors to innovation, making up 28 percent of all individuals with Ph.D.s in the United States who are engaged in research and development in science and engineering.<sup>38</sup>

Other nations appear poised to accept skilled foreign professionals in greater numbers to enhance the competitiveness of their industries. While we must take appropriate measures to protect U.S. security, an approach that facilitates the lawful entry of workers at the lower end of the skills spectrum and openness to skilled professionals at the high end will help America prosper in the global battle for talent and people.

"Immigration, if we choose to expand it, could prove an even more potent antidote for slowing growth in the working-age population."

- Federal Reserve Board  
Chairman Alan Greenspan

## ENDNOTES

<sup>1</sup> Gautam Naik, Leslie Chang and Joanna Slater, “Developing Nations Benefit From Demographic Dividend,” *Wall Street Journal*, February 27, 2003.

<sup>2</sup> Ibid.

<sup>3</sup> David Wessel, “Immigration’s Attraction Lies in Boost to Economic Vitality,” *Wall Street Journal*, February 27, 2003. Since the OECD study, the European Union has announced an expansion in the number of members in its membership.

<sup>4</sup> Testimony of Alan Greenspan before the Special Committee on Aging, U.S. Senate, February 27, 2003. Emphasis added.

<sup>5</sup> Dale W. Jorgenson, “Productivity and Postwar U.S. Economic Growth,” *Journal of Economic Perspectives*, vol. 2, issue 4, Autumn 1988; [http://effendy.home.att.net/economic\\_growth.pdf](http://effendy.home.att.net/economic_growth.pdf).

<sup>6</sup> Frank T. Denton and Byron G. Spencer, “Population, Labour Force, and Long-Term Economic Growth,” IESOP Research Paper No. 25, December 1997.

<sup>7</sup> *The New Americans*, National Research Council, 1997, chapter 3.

<sup>8</sup> Ibid

<sup>9</sup> Testimony of Gary L. Geipel, “The Aging/Workforce Equation,” Senate Special Committee on Aging, February 27, 2003.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>12</sup> *Science and Engineering Indications: 2002*, National Science Foundation.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

<sup>16</sup> David Stewart-Patterson, “Competing for Investment, Competing for Talent,” Remarks to the National Labour Market Information Forum, April 10, 2003, Calgary, Alberta.

<sup>17</sup> Ibid.

<sup>18</sup> Ibid.

- <sup>19</sup> This does not include jobs counted in other high technology-related fields.
- <sup>20</sup> National Science Foundation and Bureau of Labor Statistics. BLS divides computer software engineers into applications (100 percent growth) and systems software (90 percent growth).
- <sup>21</sup> Margaret Quan, “H-1B debate flares as EE jobless rate hits 7 percent,” *EE Times*, April 14, 2003.
- <sup>22</sup> Table B-18, *Economic Report of the President 2003*.
- <sup>23</sup> Jim Kerstetter and Peter Burrows, “Why the Tech Turnaround Looks Real,” *Business Week*, May 5, 2003, p. 29.
- <sup>24</sup> *Indicators in Science and Engineering: 2002*, National Science Foundation.
- <sup>25</sup> Mark C. Regets, “Research and Policy Issues in High-Skilled International Migration: A Perspective with Data from the United States,” Discussion Paper No. 366, September 2001, Institute of Labor (IZA) in Bonn; National Science Foundation data.
- <sup>26</sup> H-1B Report on Demographic Characteristics: FY2001, Immigration and Naturalization Service.
- <sup>27</sup> *Indicators in Science and Engineering: 2002*, National Science Foundation.
- <sup>28</sup> H-1B Report on Demographic Characteristics: FY2001, Immigration and Naturalization Service.
- <sup>29</sup> Brian Grow, “Skilled Workers—Or Indentured Servants,” *Business Week*, June 16, 2003, pp. 54-55.
- <sup>30</sup> Testimony of Stephen Yale-Loehr, “The L-1 Visa and American Interests in the 21<sup>st</sup> Century Global Economy”, Senate Committee on the Judiciary Subcommittee on Immigration and Border Security, July 29, 2003.
- <sup>31</sup> Katie Hafner and Daniel Preysman, “Special Visa’s Use for Tech Workers Is Challenged,” *The New York Times*, May 30, 2003.
- <sup>32</sup> Department of Homeland Security.
- <sup>33</sup> Interview with National Science Foundation personnel.
- <sup>34</sup> *High-Skill Training: Grants from H-1B Visa Fees Meet Specific Workforce Needs, but at Varying Skill Levels*, General Accounting Office, September 2002, GAO-02-881, p. 19.
- <sup>35</sup> *Ibid.*, p. 3. Interview with DOL officials.
- <sup>36</sup> Testimony of Alan Greenspan before the Special Committee on Aging, U.S. Senate, February 27, 2003.
- <sup>37</sup> AnnaLee Saxenian, “Brain Circulation, How High-skilled Immigration Makes Everyone Better Off,” *Brookings Review*, Winter 2002.
- <sup>38</sup> The National Science Foundation.

# IMMIGRATION FACTS

## AMONG THE FACTS INSIDE THIS ISSUE OF IMMIGRATION POLICY FOCUS:

The Organisation for Economic Cooperation and Development estimates that, while the 15 nations of the European Union now have 2.6 working adults for every person over 65, by 2050 that number will shrink to 0.8 work-age adults, making current policies unsustainable. – Page 3

With current levels of immigration, the U.S. labor force will grow 18.9 percent by 2030, while countries with more restrictive immigration policies such as Japan, Germany and Italy will see their adult working populations decline by 15 percent or more. – Page 5

In 1999, Japan allowed in 240,936 foreign professional in high-skill visa categories; a 75 percent increase since 1992. – Page 6

The Bureau of Labor Statistics projects 47 percent growth in science and engineering jobs overall and an 82 percent increase in computer-related jobs between 2000 and 2010, compared to 15 percent growth for all occupations. Computer software engineers are projected to increase by 90 to 100 percent. – Page 8

In 2000, foreign-born students accounted for 48 percent of master's degree recipients in computer science, 41 percent in physical science, 40 percent in engineering and 35 percent in mathematics. – Page 13

From 1999 to 2002, the Department of Labor found that back wages were owed to only 0.28 percent of the 470,000 individuals who were issued new H-1B visas. – Page 14

Fees paid by U.S. employers to hire foreign-born professionals on H-1B visas totaled more than \$692 million over the past 5 years. These fees have helped provide training to more than 55,600 U.S. workers and have funded scholarships for more than 12,500 U.S. students in science and engineering. – Pages 15 & 16

Indian and Chinese entrepreneurs alone head 29 percent of Silicon Valley's technology businesses. Collectively these companies accounted for \$19.5 billion in sales and 72,839 jobs in 2000. – Page 16

## ABOUT THE FOUNDATION...

The American Immigration Law Foundation is a 501(c)(3) non-profit organization dedicated to increasing public understanding of immigration law and policy and the value of immigration to American society; to promoting public service and excellence in the practice of immigration law; and to advancing fundamental fairness and due process under the law for immigrants.



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