The H-1B Straitjacket

Why Congress Should Repeal the Cap on Foreign-Born Highly Skilled Workers

by Suzette Brooks Masters and Ted Ruthizer

Executive Summary

American industry's explosive demand for highly skilled workers is being stifled by the federal quota on H-1B visas for foreign-born highly skilled workers. The quota is hampering output, especially in high-technology sectors, and forcing companies to consider moving production offshore.

The number of H-1B visas was unlimited before 1990, when it was capped at 65,000 a year. In 1998 the annual cap was raised to 115,000 for 1999 and 2000, but industry is expected to fill the quota several months before the end of the fiscal year. The shortage shows no sign of abating. Demand for core information technology workers in the United States is expected to grow by 150,000 a year for the next eight years, a rate of growth that cannot be met by the domestic labor supply alone.

Fears that H-1B workers cause unemployment and depress wages are unfounded. H-1B workers create jobs for Americans by enabling the creation of new products and spurring innovation. High-tech industry executives estimate that a new H-1B engineer will typically create demand for an additional 3–5 American workers.

Reports of systematic underpayment and fraud in the program are false. From 1991 through September 1999, only 134 violations were found by the U.S. Department of Labor, and only 7, or fewer than 1 per year, were found to be intentional. The lack of widespread violations confirms that the vast majority of H-1B workers is being paid the legally required prevailing wage or more, undercutting charges that they are driving down wages for native workers. Wages are rising fastest and unemployment rates are lowest in industries in which H-1B workers are most prevalent.

Congress should return to U.S. employers the ability to fill gaps in their workforce with qualified foreign national professionals rapidly, subject to minimal regulation, and unhampered by artificially low numerical quotas.

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Introduction

For almost 50 years the U.S. economy has benefited from the contributions of people admitted with the H-1B status, which permits qualified foreign national professionals to work for U.S. employers on a temporary basis.[1] By using the H-1B visa, employers have been able to quickly plug holes in their domestic workforce with capable and often exceptional professionals from abroad in a wide range of fields, including information technology, finance, medicine, science, education, law, and accounting. Yet, as U.S. employers, large and small alike, struggle to find enough skilled professionals, particularly in the high-tech sector,[2] the H-1B status is being strangled. Unnecessary and inadequate H-1B quotas have put this vital immigration status in jeopardy and threaten to undermine the competitiveness of U.S. companies in the global marketplace.

The puzzling question is why the use of H-1B professionals has been subject to such virulent attack. How is it that this long-established visa category[3] can be championed by virtually all employers and by most economists who have studied its effects on the economy and, at the same time, be reviled by much of organized labor and labor's supporters in Congress and the executive branch?

To understand that enigma, one must examine the major questions—both factual and rhetorical—underlying the H-1B debate:

- Do H-1B professionals benefit the domestic economy?
- Do H-1B professionals displace U.S. workers or depress wages?
- Without a strict quota, will employers hire foreign nationals before U.S. citizens?
- Does the availability of H-1B professionals diminish the willingness of U.S. companies to train and educate our domestic workforce for technical and scientific positions?

Our study of each of those questions leads us to the firm conclusion that H-1B hiring has contributed significantly to the growth and continued good health of our economy and has helped, not harmed, the U.S. worker. Although labor organizations and their political allies have continued to perpetuate the myth of underpaid foreign professionals damaging our economy and destabilizing our domestic workforce, the facts tell us otherwise. The challenge for Congress is to move beyond this restrictionist mindset and recognize the important benefits of using foreign professionals to fill specific employment positions. That requires a rethinking of the numerical caps now crippling the H-1B status.

Foreign Professionals: A Boon to the U.S. Economy

The United States is the economic envy of the world. Our dynamic tradition of accepting and successfully integrating successive waves of immigrants has made us the beneficiary of the world's most talented and renowned research scientists, economists, engineers, mathematicians, computer scientists, and other professionals. Those immigrants have made major contributions to the U.S. economy, particularly in the high-tech sector.[4] Recent studies that have measured the magnitude of those contributions have confirmed that immigration creates wealth and increases the size of the economy overall.

One of the most widely respected of those studies, a 1997 report by the National Research Council of the National Academy of Sciences, found that immigrants raise the incomes of U.S.-born workers by at least $10 billion per year.[5] And some people believe that those estimates are understated because they do not account for the domestic economic impact of immigrant-owned businesses or of highly skilled foreign national workers on overall U.S. productivity.[6] Over time, the benefits of immigration are even greater. James P. Smith, chairman of the National Research Council's Panel on Immigration and an economist at the RAND Corporation, testified in 1997 before

the Immigration Subcommittee of the Senate Judiciary Committee that if the $10 billion annual gain from immigrants were discounted by a real interest rate of 3 percent, the net present value of the gains from immigrants who have arrived in the United States since 1980 would be $333 billion.[7]

Of all the foreign workers coming to the United States, no category provides such an instant boost to the economy as do H-1B professionals. Although they are here no longer than six years, H-1B professionals, like their permanent counterparts, satisfy unmet labor needs and provide a diverse, skilled, and motivated labor supply to complement our domestic workforce and spur job creation. But unlike their permanent counterparts, H-1B professionals offer the very important advantage of enabling employers to meet immediate labor needs. Employers can hire H-1Bs in months or even weeks. In contrast, it can take four years or more to qualify a worker for permanent "green card" status.[8]

With unemployment at a peacetime, postwar low of 4.1 percent, the resulting tight labor market has made the H-1B status even more important to U.S. companies of all stripes and sizes. In recent years, H-1B usage by financial and professional service firms has risen sharply, reflecting the increased globalization of those industries. Multinational companies often must draw on the skills and talents of professionals from their operations abroad. In information technology, management consulting, law, accounting, engineering, and telecommunications, companies are increasingly using international teams to work on transnational projects to meet the needs of their global clients.[9]

Across the board, in virtually all the professions, skilled and talented foreign nationals bring fresh perspectives and special expertise to American companies. For example, in the important field of advertising, British nationals have led the way in introducing the important new discipline of account planning. In the 15 years since British account planners "exported" that new way of looking at advertising from the consumers' point of view, virtually all major U.S. advertising agencies have established account planning departments, which follow the precepts taught by the British account planners who first came here with the H-1B status. When French or German H-1B corporate lawyers use their knowledge of European civil law or EU law to analyze complex legal issues, they not only benefit their U.S. law firm employers but also enrich our economy in ways beyond simply filling a job for which competent professionals are in short supply. Similar examples abound in countless other fields, in which H-1Bs bring to their U.S. employers new ways of thinking about technology, processes, and problem solving.

Perhaps no industry presents a stronger case for increased usage of H-1Bs than does information technology (IT). The evidence is overwhelming that there is currently a serious shortage in the United States of IT professionals, one that is projected to become increasingly severe over the next several years.[10] Two years ago, the Information Technology Association of America and Virginia Polytechnic Institute released preliminary findings on the shortage of IT workers, estimating that as of January 1998 there were 346,000 IT vacancies;[11] there is no sign that the shortage has abated since then. Currently, the IT sector remains the most dynamic in the U.S. economy and is driving much of its growth, contributing more than one-third of our real economic growth between 1995 and 1997. The increase in the number of IT workers in the U.S. economy has vastly outpaced the overall U.S. job growth rate. For example, between 1983 and 1998 jobs for systems analysts and computer scientists soared by 433 percent, or nearly 15 times the comparable national rate of job growth of 30 percent.[12]

The explosive growth of high-tech jobs will likely continue through the next decade. In its June 1999 report, "The Digital Work Force," the U.S. Department of Commerce's Office of Technology Policy underscored the importance of the IT sector to the U.S. economy and noted that the need for IT workers cuts across all industries, from manufacturing, services, and health care to education and government.[13] The OTP predicts that 1.4

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Table 1
Employment Growth in Major High-Tech Occupations, 1998–2008

Occupation	1998 (thousands)	2008 (thousands)	Change, 1998–2008 Number (thousands)	Change, 1998–2008 Percentage
Systems analysts	617	1,194	577	94
Computer support specialists	429	869	440	103
Computer engineers	299	622	323	108
Total, core high-tech jobs	1,345	2,685	1,340	100
Total U.S. employment	140,514	160,795	20,281	14

Source: Douglas Braddock, "Occupational Employment Projections to 2008," Bureau of Labor Statistics *Monthly Labor Review*, November 1999, Table 4, p. 73.

million new workers, nearly 150,000 a year, will be required to meet the projected demand for core information technology workers in the United States between 1996 and 2006,[14] and that the domestic pipeline of potential workers will not meet that demand. In November 1999 the U.S. Department of Labor projected that the five fastest growing occupations between 1998 and 2008 would all be in computer-related fields. Three of those occupations—systems analysts, computer engineers, and computer support specialists—were also among the top 15 in projected numerical growth. The Labor Department expected the total number of workers in those three core high-tech occupations to increase from 1,345,000 in 1998 to 2,685,000 in 2008, a 100 percent increase compared to a growth rate in overall employment of 14 percent (Table 1). "The demand for computer-related occupations will continue to increase as a result of the rapid advances in computer technology and the continuing demand for new computer applications, including the Internet, Intranet, and World Wide Web applications," the Labor Department noted.[15]

Information technology companies depend on H-1B professionals to compete in a rapidly changing marketplace. In 1995 about one-quarter of H-1B professionals were in IT-related fields. Not surprisingly, by 1997 approximately half of the H-1Bs were in IT-related fields.[16] Several aspects of the way the IT industry functions account for its particular need for H-1B professionals. First, quick turnaround time inevitably drives employers to hire professionals who already possess the needed technical skills and experience and can work productively at once. Second, product proliferation creates demand, which changes suddenly and often, for specialized knowledge and skills. Combined, those pressures produce the need for "the right worker, with the right skills, at the right time."[17] Because of those constraints, if there is no readily available U.S. worker, the H-1B professional becomes critical to continued economic growth. Yet, despite the demonstrated contributions of those workers to America's welfare, the Clinton administration and some members of Congress have gone out of their way to make it difficult, and sometimes impossible, to hire H-1B professionals.

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H-1B Availability Has Been Sharply Curtailed

The H-1B visa category was designed to be an asset to American industry, and for almost 40 years there was no limit on the number of H-1B "nonimmigrant" petitions granted in any given year. In its 1992 report reviewing the history of the H-1B status, the U.S. General Accounting Office explained the economic benefit provided by H-1B professionals:

> One of the major purposes of nonimmigrant work-related visas is to enable U.S. businesses to compete in a global economy. Increasingly, U.S. businesses find themselves competing for international talent and for the "best and the brightest" around the world. The nonimmigrant visa program can be a bridge or a barrier to successful international competition.[18]

What had been a bridge suddenly became a barrier with the passage of the Immigration Act of 1990.[19] At the same time that Congress expanded the levels of permanent employment-based immigration (raising the annual maximum numerical quota from 54,000 to 140,000), it reduced the future availability of temporary H-1B professionals by imposing, for the first time, a cap on annual visas. The rationale driving the 1990 act's seemingly inconsistent expression of public policy was the erroneous assumption that, with an increase in the number of slots made available for permanent immigrants, there would be reduced demand for temporary professionals.[20] And many members of Congress were swayed by organized labor's fears about the weak economic bargaining power of the temporary professionals and the possible displacement of U.S. workers.[21] The 1990 law imposed a cap of 65,000 on the annual number of new H-1B professionals permitted entry into the United States and required U.S. employers hiring such foreign workers to make a variety of attestations to ensure that those hires would have no adverse effect on the wages and working conditions of U.S. workers.[22] Employers were also prohibited from using foreign workers as strikebreakers and were required to notify their employees of the proposed hiring of a foreign temporary worker.

In 1997, when the cap was reached for the first time, U.S. employers began to clamor for more H-1B visas. In 1998 the cap was again reached, this time in May, only seven months into the fiscal year.[23] Finally, in October 1998 Congress responded to the employer outcry by enacting the American Competitiveness and Workforce Improvement Act,[24] which increased the number of H-1B professionals to 115,000 for fiscal years 1999 and 2000, and 107,500 for FY01. The new law also provided for a return to the 65,000 cap in FY02. Unfortunately, the increase soon proved insufficient. Because of pent-up demand and an economy chugging along in high gear, the increased numbers for FY99 were once again exhausted by the spring of 1999, months before the September 30 end of the fiscal year.[25] The situation for FY00 seems even worse—the 115,000 cap is likely to be reached several months before the fiscal year ends.

H-1B Professionals Create Opportunities for U.S. Workers

In an intensely competitive global environment, with constant pressure placed on employers to cut expenses and increase productivity, the H-1B visa category has become a convenient target for critics who try to draw a connection between immigration and domestic layoffs. Although it is true that large U.S. corporations have been laying off workers in record numbers,[26] many employers are firing one type of worker and hiring other workers with different skills. H-1B professionals are not the cause of those layoffs and hiring practices but an important source of flexibility in the labor market. The need for H-1B professionals is another manifestation of the inexorable pressure on companies to adapt quickly to changing market conditions. Constraining H-1B hiring won't end corporate downsizing. It will simply force employers to shift more and more of their operations abroad, where they can get the resources they need, including all-important human capital, to maintain production.[27]

When the demand for workers cannot be met domestically, which is the case today, U.S. companies must look elsewhere. Ideally, they would hire foreign workers and integrate them into their existing U.S. operations. But if U.S. companies are unable to gain access to the

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workers they need because of limits on H-1B hiring, then some are left with only one choice: hire the workers they need abroad with a corresponding offshore shift in domestic operations. Asked how Motorola Inc. would respond to the hiring crisis caused by inadequate numbers of H-1B visas, Motorola's head of global immigration services recently stated: "If we have to do that [shift work overseas], we will, but that's not a very practical business approach to the problem. . . . And it's not very good for American workers."[28]

This phenomenon, known as offshore outsourcing, can be harmful to the U.S. economy and U.S. workers, especially in the more knowledge-intensive industries. The hiring of foreign-born highly skilled workers can have a positive ripple effect not only on the companies that hire the workers but on the economy as a whole. Highly skilled workers are able to create new products and, in some cases, whole new sectors of an industry, creating opportunities for other workers. T. J. Rodgers, president and CEO of Cypress Semiconductors, testified before Congress that for every foreign-born engineer he is allowed to hire, he can hire five other workers in marketing, manufacturing, and other related areas.[29] At Sun Microsystems, both the Java computer language and the innovative SPARC microprocessor were created by engineers first hired through the H-1B program; their work then opened opportunities for thousands of other workers.[30]

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In the critical IT sector, companies that can't hire the professionals they need are going abroad in increasing numbers. In recent testimony before the Senate Subcommittee on Immigration investigating this problem, witness after witness spoke to this growing phenomenon. Susan Williams DeFife, CEO of womenCONNECT.com, a leading Internet site for women in business, asked: "What happens when companies like mine can't hire the workers we need? We have to delay projects and in the Internet industry where change occurs daily and competitors are springing up all around you, waiting to execute on a project can be lethal."[31] DeFife told the subcommittee that denying companies the ability to hire H-1B professionals would leave companies with three less-than-satisfactory options: limit the company's growth, "steal" employees from competitors, or move operations offshore.

In a similar vein, Sen. Spencer Abraham (R-Mich.), chairman of the Senate Immigration Subcommittee and main sponsor of the 1998 bill raising the H-1B cap, echoed the concern about forcing American industry to export jobs abroad:

> [F]oreign countries are stepping up their own recruitment efforts, including a pitch by the Canadian government for U.S. high-tech companies to move to Canada so as to avoid the problem of hitting the H-1B cap year after year here in America. The CEO of Lucent Technologies stated this summer at a Capitol Hill technology forum that it has placed hundreds of engineers and other technical people in the United Kingdom in response to an insufficient supply of U.S.-based workers—keeping many related jobs from being created in America.[32]

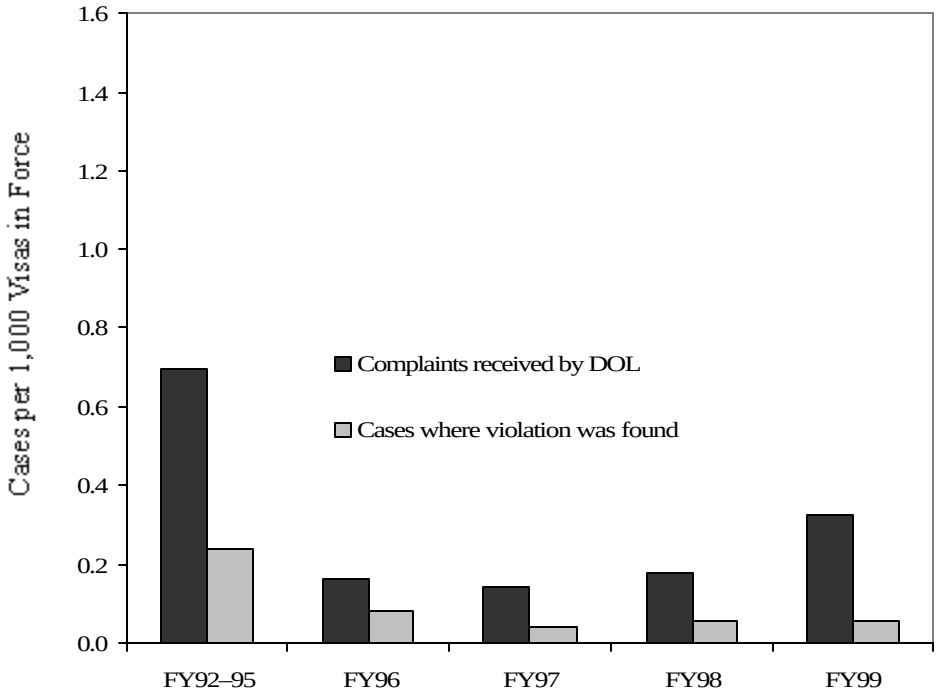
Shall we close our eyes to globalization and take the myopic view that a job that cannot be filled with an American is not a job worth saving? Such a policy would be harmful not only to the individual businesses affected but to America's general economic well-being.

H-1B Enforcement Problems Minimal

The most common argument against H-1Bs is that they allegedly displace U.S. workers and depress wages. In response, Congress has spun an elaborate web of laws resulting in complex regulations supposedly to protect native workers from any such impact. But nothing in theory, wage and job trends, or law enforcement data indicates that the H-1B status has a negative impact on the U.S. labor market.

The U.S. Department of Labor, one of the major critics of the H-1B status, has carefully

Figure 1
H-1B Enforcement



Source: U.S. Department of Labor and U.S. Immigration and Naturalization Service.

tracked the program's so-called abuses. We obtained and reviewed H-1B enforcement data from the Wage and Hour Division of DOL and were surprised by what we found.[33] From 1991, at the inception of the H-1B caps and labor condition attestations, through September 30, 1999, DOL received a total of 448 complaints alleging underpayment of H-1B professionals, and other employer violations (an average of fewer than 60 complaints nationwide each year). Of those 448 complaints, only 304 resulted in a DOL investigation. During that period, nearly 525,000 H-1B nonimmigrant petitions were granted.[34] As can be seen clearly from Figure 1, the complaint rate for a program supposedly rife with abuse is minuscule.

A violation was found in only 134 of the 159 DOL investigations that have been completed to date. Back wages found due over the entire eight-year period amounted to $2.7 million spread over 726 employees. That amount averages $337,500 a year in total underpayments, or less than $5 a year in underpayments for each H-1B visa issued during the period. In relation to the $4.2 trillion in total wage and salary disbursements paid to U.S. workers in 1998,[35] the average annual underpayment to H-1Bs amounted to 0.000008 percent—or about 40 cents for every $50,000 paid in wages and salaries. With H-1B workers accounting for such a small share of total U.S. workers, the impact of these rare cases on the overall wage level is insignificant.

Infractions of DOL wage rules appear to be not only rare but random, with no discernible pattern of intentional abuse. Of the 134 violations, only 7 were determined to be "willful,"[36] an average of about one intentional violation per year. The fact that more than 94 percent of the small number of violations were unintentional demonstrates that the problem is not with employers but with a law that is needlessly complex, arbitrary, and cumbersome.

Given all the attention lavished by H-1B critics on the "job shops" (i.e., companies pro-

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viding temporary professional personnel to high-tech employers on a contract basis), one would expect to find large numbers of cases involving IT-sector employers failing to pay the prevailing wage. In fact, the authors' analysis of DOL enforcement data shows that, over the eight-year period in question, only 231 employees in the high-tech sector, now estimated to employ between 2 million and 3.5 million people,[37] were owed back wages. This constitutes less than one-third of the total number of H-1B employees in all specialty occupations found by DOL to be due back wages.

What is most striking about the low level of enforcement activity is that an aggrieved party (i.e., the largely mythical American worker who loses a job to an underpaid temporary foreign worker) has but to make a call to DOL to start the ball rolling. Complaints don't require lawyers, simply a phone call. And DOL is champing at the bit to find abusive employers. In this environment, one would expect every "displaced" U.S. worker and every "underpaid" foreign worker to clamor for justice. Workers talk to one another, and job hopping and raiding are commonplace. If abuse were prevalent, it would be impossible to hide. The enforcement data simply do not support allegations of the displacement of U.S. workers or the underpayment of H-1B professionals by employers.[38]

The tame enforcement picture contrasts sharply with the widespread but unproven accusations of pervasive fraud in the H–1B visa process. According to some opponents of the H-1B status, the alleged fraud is occasioned by employers who knowingly file visa petitions for persons who fail to meet the statutory criteria, prospective H-1B applicants who falsify their academic credentials, and government employees on the take who further those criminal acts. But the evidence of H-1B visa fraud is exclusively anecdotal. Given the small number of those visas available every year and the overwhelming need for such visas by legitimate employers complying with the law, vague, largely unsubstantiated allegations of abuse should not be accepted without hard evidence, and they must not obscure the very real benefits provided by this important category of visa holders.

In House Immigration Subcommittee hearings held on the topic of nonimmigrant visa fraud in May of 1999, senior Immigration and Naturalization Service official William Yates testified that "anecdotal reports by INS Service Centers indicate that INS has seen an increase in fraudulent attempts to obtain benefits in this category [H-1B]. These fraud schemes appear to be the result of those wishing to take advantage of the economic opportunities in the U.S."[39] Given the small base number of proven frauds, the alleged increase hardly seems a vigorous call to action. In a similar vein, the inspector general of the U.S. Department of Justice, Michael R. Bromwich, testified that "there is very little hard data available to gauge the magnitude of visa fraud, a point noted by [the General Accounting Office] in its reports on this subject. . . . This lack of comprehensive statistics hinders the ability of the State Department and the INS to appropriately respond to visa fraud."[40] Moreover, the three cases cited in the inspector general's testimony as ongoing fraud investigations all involved criminal activity by INS employees. No reasonable person condones immigration fraud of any type, but the allegation of significant H-1B fraud is simply unsupported by the facts.

H-1B Professionals Do Not Depress U.S. Wages

Despite the absence of evidence that H-1B workers are paid less than the market wage, critics persist in arguing that H-1B workers are paid less than their U.S. counterparts, which exerts downward pressure on wages. Yet the facts are that wage growth is strong in the United States and that H-1B professionals' pay is on a par with that of their domestic counterparts. We know that H-1B workers are paid well because the law mandates that they be paid at least the prevailing wage or the actual wage paid to those who are similarly situated. And we also know from reviewing the enforcement evidence that an overwhelming majority of employers of H-1B workers are complying with the law. Those few cases in which the law is violated are relatively easy to

detect and report to the relevant authorities. Given the desperate need employers have for skilled workers to meet their skills gaps, the high costs associated with H-1B hiring, and the extremely low incidence of violations detected by DOL, there is no basis for speculating that H-1B workers are being paid less than the going rate.

Compound that with the fact that H-1B professionals are only a tiny fraction of the U.S. labor force, and claims of wage erosion become increasingly fanciful. The stock of H-1B professionals in the United States (six years' worth of annual flows) accounts for only about one-third of 1 percent of the domestic workforce. To illustrate the point, assume conservatively that 15 percent of the U.S. labor force, or 21 million people based on a civilian labor force of 140 million,[41] turns over every year. If we assume also that there are 240 working days per year, that means 88,000 workers are leaving their jobs every day. The influx of an entire year's worth of H-1B professionals would be equivalent to less than two days' worth of labor turnover, or 1 new H-1B worker for every 184 native workers leaving their jobs. With this much labor market activity, the effect of the annual influx of H-1B professionals on the overall labor market is insignificant.

The Commerce Department's OTP reviewed the major competing sources of wage and salary data and concluded with respect to IT workers (the sector that H-1B critics claim has been most harmed by the H-1B professionals) that salaries have been high and rising, and that those with hot skills have been seeing faster salary growth.[42] U.S. employers are paying top dollar to hire and retain the right workers and believe the investment is worthwhile. In addition to raiding other people's workers, they offer finder's fees, sign-on bonuses, and substantial salaries to potential hires, as well as quality-of-life improvements and other fringe benefits. Those who don't offer competitive salary and benefit packages will watch their workers be lured away.[43]

Everyone agrees that wages are rising in the IT sector, but people differ in their estimates. Government surveys show a moderate rate of wage growth of 3 to 4 percent a year but do not include fringe benefits, bonuses, and stock options, even though they are often key components of an overall compensation package.[44] In contrast, many private-sector surveys that do include those elements of compensation show a considerably faster pace of growth, in the range of 7 to 9 percent.[45] Hot specialties, as expected, are seeing double-digit growth.[46] With the unemployment rate down to 1.4 percent in the IT market (one-third of the overall 4.1 percent unemployment rate), there are innumerable forces militating against low pay for H-1Bs.[47]

Even outside the H-1B arena, there is no evidence to suggest that immigration generally has a depressing effect on the wages of native workers. It seems inevitable that there should be because every student is taught in Economics 101 that when the supply of something increases, and all other factors are held constant, then its price must fall. Immigration, however, changes more than the labor supply. It stimulates domestic demand for food, clothing, housing, and other consumer goods, thus raising the demand for labor. Immigration can also lead to new products, lower prices, and more innovative ways of doing business, raising the overall level of productivity and actually raising the general wage level.

That counterintuitive result is borne out in study after study. In an exhaustive 1995 survey, "Immigration: The Demographic and Economic Facts," the late economist Julian Simon reviewed the theoretical and econometric literature on the impact of immigration on wages and found only negligible effects on native wages.[48] The prominent Columbia University economist Jagdish Bhagwati commented recently in the *Wall Street Journal* that labor economists "have long puzzled over the minuscule effect on wages of even large-scale immigration (if there is an effect at all, which is debatable)."[49] He believes the explanation lies in the way immigrants are absorbed into the labor force in open economies.

In a recent paper pursuing this approach, economists Gordon Hanson and Matthew Slaughter applied the principles of internation-

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al trade theory to labor market functioning, tested their hypothesis, and concluded that immigration has no adverse impact on regional wages in the United States. Specifically, Hanson and Slaughter hypothesized that if an increase in the relative supply of workers through immigration increased the output of goods and services that used labor relatively intensively and decreased the output of at least some other goods and services that used labor less intensively, then the relative demand for labor would increase—because of rising demand for its products—and thus downward pressure on wages would be eliminated. And the data they looked at for 15 states between 1980 and 1990 bore out their hypothesis.[50]

The compelling econometric evidence on the absence of a depressing wage effect should alleviate fears that foreign professionals are hurting the earning power of domestic workers. If overall permanent immigration (both family- and employment-based) to the United States, which accounts for upwards of 800,000 new permanent residents annually, has at most a marginal effect on native wages, then it goes without saying that the effect of H-1B professionals will be inconsequential. The debate about the H-1B category should properly dispense with rhetorical arguments about caps, all of which are statistically irrelevant, and focus instead on how to help expand the U.S. economy.

Employers Pay a Premium for H-1B Professionals

Employers don't petition for H-1B professionals on a whim. The statutory and regulatory maze through which employers must navigate is difficult, time-consuming, and expensive. It is instructive to spell out exactly how expensive and burdensome it is to hire an H-1B professional, particularly since the real transaction costs have been grossly underestimated by the Department of Labor, the agency charged with monitoring and enforcing the wage and working-condition aspects of the H-1B process.[51]

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To handle the complex H-1B process, employers generally must use specialized immigration counsel, knowledgeable human resources staff schooled in the finer points of immigration law, compensation and benefits experts, and educational evaluators expert in reviewing and analyzing foreign degrees and professional credentials. Employers must develop an objective wage system justifying the salary levels for every position and an actual wage system showing how the salary to be paid to the prospective H-1B employee fits within this framework, locate a published wage survey or other "legitimate source of wage information" that meets strict DOL criteria for the correct prevailing wages paid by all employers in the same geographic area or areas for the position offered at the same level of education and experience, and update these prevailing wage determinations every two years. Employers must also comply with internal posting requirements at the employers' work sites and at the work sites of other employers, observe complex "no benching" rules for H-1B employees,[52] and document their own H-1B dependency status if applicable. Employers must maintain and make available for public inspection files of labor-condition attestation records and maintain internal files documenting compliance with the many record-keeping requirements in the Labor Condition Application, a preliminary requirement before an H-1B worker can be hired. For heavy users of the H-1B visa, the compliance costs are even greater.

Following the Labor Department's certification of the LCA, immigration lawyers, working with in-house counsel or human-resource directors, must prepare the H-1B petition and supporting papers. The papers submitted to the INS Regional Service Center must establish the bona fides of the employer, the professional-degree-requiring nature of the position offered, and the professional credentials of the foreign national. Generally, an independent educational evaluator must be involved to evaluate the foreign degrees and, in some cases, to weigh the foreign national's education and employment experience to determine if they equal the

required U.S. university degree.

For each petition, the INS charges a steep $610 filing fee, $500 of which is allotted to U.S. worker "retraining" and scholarships. In addition, the employer must pay the expense of recruitment and, in many cases, help pay relocation costs for the employee and any immediate family members. Those hefty transaction costs are even more burdensome for smaller employers.

If the foreign national and his or her family are overseas, they must obtain H-1B and the corresponding H-4 accompanying-family-member visas from a U.S. consulate abroad in order to enter the United States to work for an H-1B-sponsoring employer. This process requires the preparation of visa applications, the payment of separate visa processing fees, and the submission to U.S. consular officials stationed at U.S. consular posts abroad of proof of the legitimacy of the petition previously approved by the INS. Depending on the volume of cases and the numbers of employees assigned to visa work at U.S. consulates, this process can add considerable time and expense to the successful hiring of an H-1B professional.

After the expiration of the initial three-year H-1B petition, the employer must begin the H-1B process anew and go through all of the onerous procedures again. And if the H-1B professional has not been able to qualify for permanent resident status (a process that routinely takes four years) before the six-year maximum period in H-1B status elapses, the employer must say goodbye to that valued professional, despite all the previous costs and burdens.

Not too surprisingly, U.S. employers uniformly bemoan the costliness and difficulty of hiring H-1B professionals. According to Michael Murray, a human-resources executive at Microsoft: "Finding and employing foreign workers is far more time consuming, burdensome, and costly than hiring locally. For example, relocation and visa processing generally cost between $10,000 and $15,000 per foreign employee."[53] If U.S. workers were available, it seems obvious that U.S. employers would prefer them and look to foreign workers only for unique skills unlikely to be found domestically.

H-1B Hiring Complements Training and Education

Another charge against the H-1B program is that it discourages U.S. companies from adapting to the domestic skills shortages by investing in training of the domestic workforce. In practice, however, American industry is pouring money into training programs and technical education. Hiring H-1Bs and educating and training domestic workers are not mutually exclusive but complementary: both are essential to preserving the competitive edge of U.S. companies in a global economy.

The reasons for training are obvious: retaining existing employees, keeping pace with new product lines and technological advances, and boosting skill levels of new hires. And U.S. companies are responding to the call for new training initiatives. According to Phyllis Eisen, executive director of the National Association of Manufacturers' Center for Workforce Success, U.S. industry currently invests between $60 billion and $80 billion in training annually.[54] U.S. companies are not only training their own employees but educating America's youth in order to create a suitably trained workforce for the future.

On the basis of its 1998 survey on training issues, NAM's Center for Workforce Success reports that one-third of manufacturers offer programs to teach computer technology, and fully one-quarter of them are upgrading their workers' math and problem-solving skills. The vast majority of companies (more than 80 percent) also offers supplemental educational opportunities beyond remedial training.[55] Half of survey respondents spend between 2 and 5 percent of their payroll on training, a huge jump since 1991. In the high-tech sector, companies spend even more on training, between 4 and 6 percent of payroll, according to NAM's Eisen. Microsoft, a company that petitions for

U.S. industry currently invests between $60 billion and $80 billion in training annually.

many H-1B IT professionals, invests heavily in training its own employees ($54 million in FY98) and supports the use of technology in schools throughout the country. In FY97 it contributed nearly $250 million to promote those broad training efforts.[56]

The need to train the next generation of U.S. workers and to retool current American workers to help meet the demand for professionals in the IT and other sectors makes training a high priority for U.S. companies. In a fiercely competitive global environment, H-1B professionals help U.S. companies remain in the game while they invest in their workforce and their future.[57]

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Congress Should Unfetter H-1B Hiring

Meanwhile, on Capitol Hill, Congress struggles to achieve consensus on whether and how much to raise the H-1B cap, largely ignoring the overwhelming evidence that attempts to "control" the H-1B inflow are not only unnecessary but counterproductive.

"Increase the H-1B cap" bills have been introduced in the Senate and the House and are awaiting action while the available FY00 visas evaporate. The American Competitiveness in the 21st Century Act, introduced in February 2000 by Sens. Phil Gramm (R-Tex.), Spencer Abraham (R-Mich.), Slade Gorton (R-Wash.), and Orrin Hatch (R-Utah), would raise the cap on H-1B visas to 195,000 in fiscal years 2000–02. It would exclude from the caps foreign-born workers employed by universities and those with advanced degrees.

Another proposal involves creation of a new immigration visa category (the so-called T visa) for foreign-born technology professionals, in recognition of the national shortage of qualified high-tech workers. Under the proposed BRAIN Act (H.R. 2687) introduced by Rep. Zoe Lofgren (D-Calif.) in August 1999, a foreign professional would need a bachelor's degree or higher in mathematics, science, engineering, or computer science and the offer of a job paying at least $60,000 a year to qualify for this new visa status. Eligibility would be limited to recent graduates of U.S. undergraduate or postgraduate programs who are currently in the United States on student visas. A similar Senate bill (S. 1645) was introduced in September 1999 by Sen. Charles Robb (D–Va.). Although the Lofgren and Robb bills acknowledge the need to fix the serious, chronic problem of too few visas, the $60,000 threshold seems arbitrarily drawn and too high an amount to cure the problem of insufficient numbers. Creating a new, separate category of visa would also require a whole new set of regulations, needlessly complicating the hiring process and introducing more delays and uncertainty into the system, rather than working within the already established H-1B procedures.

In late October 1999, Sen. John McCain (R–Ariz.) became the first member of Congress to propose doing away with the H-1B cap altogether. The 21st Century Technology Resources and Commercial Leadership Act (S. 1804) would suspend the cap on H-1B nonimmigrants for the next six years, through FY06. It would also require the INS to give priority to processing H-1B petitions on behalf of students graduating from U.S. universities with advanced degrees in technical disciplines. Congress will likely consider some variation of these proposals in 2000.

Let the Market Decide H-1B Supply

Should Senator McCain's bill become law, for the first time since 1991 the U.S. government would let the market determine how many H-1Bs were needed. Since the evidence does not support claims of job displacement, wage erosion, or failure to invest domestically in training, what is the real fear? That the floodgates will fly open and millions of H-1B professionals will invade our shores? That is extremely unlikely. Before 1990 there were no caps on H-1B entrants and the numbers were always modest. Even in the early days of caps, demand for H-1B professionals never reached

the permissible limit. It was not until 1997 that the legislated cap of 65,000 was first met, a reflection of a strong economy's need for those valuable professionals.

The argument for raising the cap cuts across party and ideological lines. Laura D'Andrea Tyson, former chief economic adviser to President Clinton, made the case in a *Business Week* column last year that the current restrictions on H-1B visas are impeding employment and output in a rising number of regions and economic sectors. She pointed to evidence that immigrants have been a major source of job and wealth creation in Silicon Valley's thriving high-tech sector, bringing with them skills, creativity, human capital, and links to global markets. She concluded: "Conditions in the information technology sector indicate that it's time to raise the cap on H-1B visas yet again and to provide room for further increases as warranted. Silicon Valley's experience reveals that the results will be more jobs and higher income for both American and immigrant workers."[58]

One of the great strengths of the American economy today is its openness—to the flow of goods, services, capital, and people. The warnings from left and right that more trade and immigration would throw native Americans out of work, destroy jobs, and drive down real wages have proven to be spectacularly wrong as economic expansion continues. In the last decade, trade and investment flows have reached record levels while the influx of legal immigrants has averaged close to 1 million per year. During that period, unemployment has fallen to a 30-year low, 15 million net new jobs have been created, real wages have been rising all across the income scale, and the current economic expansion has just set a record as the longest in U.S. history. Our openness to trade and immigration has been an integral part of our economic success.

America's economic health should not be jeopardized by an arbitrary quota on foreign-born professionals. It is time to return to U.S. employers the ability to fill gaps in their workforce with qualified foreign national professionals rapidly, subject to minimal regulation, and unhampered by artificially low numerical quotas. We advance neither U.S. workers nor the U.S. economy by denying our employers the ability to continue to bring to our shores the best professional talent available in the world. Sound policy dictates that Congress should abolish the caps and let the market determine the need for H-1B professionals.

Notes

1. The H-1B visa provides a quick, lawful way for U.S. employers to hire foreign national professionals on a temporary basis. See § 101(a)(15)(H)(i)(b) of the Immigration and Nationality Act (INA), 8 U.S.C. § 1101(a)(15)(H)(i)(b) (1952, as amended). H-1B professionals are defined as persons coming to work in a "specialty occupation" (i.e., an occupation requiring at least the equivalent of a bachelor's degree in the field of specialty) for up to six years. INA, § 214(i), 8 U.S.C. § 1182(i). Typical examples of persons hired with H-1B status are engineers, scientists, professors, accountants, researchers, lawyers, physical therapists, economists, financial analysts, and computer professionals. See "The H-1B Program: America's Home Court Advantage in Global Competition," American Immigration Lawyers Association Issue Paper, November 3, 1999.

2. See, for example, Matt Richtell, "Need for Computer Experts Makes Recruiters Frantic," *New York Times*, November 18, 1999, p. A1.

3. The H-1B status was originally introduced as part of the INA in 1952 (at which time it was classified simply as "H-1"; the "B" classification was added much later to reflect the addition of a separate visa category for nurses, the "H-1A"). It has remained in the law, albeit with major changes, since that time. Until 1990 the statutory language reserved the H-1 status for persons deemed to be of "distinguished merit and ability" coming to the United States "to perform services of an exceptional nature requiring such merit and ability." Although never defined by statute, the term "distinguished merit and ability" had long been understood and applied by the Immigration and Naturalization Service to include persons with bachelor's or higher degrees (i.e., professionals), as well as persons of prominence. In short, the H-1B status has been available to U.S. employers for almost 50 years and is hardly the ephemeral, "Johnny-come-lately" program that its critics pretend it to be. For an insightful history of the H-1B status, see Charles G. Gordon, Stanley M.

Our openness to trade and immigration has been an integral part of our economic success.

Mailman, and Stephen Y. Yale-Loehr, *Immigration Law and Procedure* (New York: Matthew Bender, 1999), §§ 20.08 (2)(a)–(f).

4. See T. J. Rodgers, president and CEO of Cypress Semiconductor Corp., Testimony and prepared statement in support of testimony, in Senate Committee on the Judiciary, *Hearing on the High-Tech Worker Shortage and U.S. Immigration Policy*, 105th Cong., 2d sess., February 25, 1998, Serial no. J-105-76), pp. 30–39; Stephen Moore, "Immigration Reform Means More High-Tech Jobs," *Today's Commentary*, Cato Institute, September 24, 1998, http://www.cato.org/dailys/9-24-98.html, postulating that, in aggregate, the largest immigrant-founded high-tech companies generated about 70,000 jobs and $28 billion in annual revenues in 1996; and Scott Thurm, "Asian Immigrants are Reshaping Silicon Valley," *Wall Street Journal*, June 24, 1999, discussing the results of research showing that Asian immigrants have started, and own and direct, nearly 25 percent of high-tech companies started in Silicon Valley since 1980 and that their companies had sales of $17 billion and employed nearly 60,000 people in 1998.

5. National Research Council, *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration* (Washington: National Academy Press, 1997).

6. Stephen Moore, "A Fiscal Portrait of the Newest Americans," National Immigration Forum and Cato Institute, 1998.

7. James P. Smith, Response to questions posed by Sen. Spencer Abraham, in Subcommittee on Immigration of the Senate Committee on the Judiciary, *Hearing on the Economic and Fiscal Impact of Immigration*, 105th Cong., 1st sess., September 9, 1997, Serial no. J-105-45, Appendix, p. 21.

8. For a lively and insightful discussion of the very lengthy and difficult process entailed in qualifying for U.S. permanent residence status, see Barry Newman, "In Canada, the Point Of Immigration Is Mostly Unsentimental," *Wall Street Journal*, December 9, 1999, p. 1.

9. Austin T. Fragomen, chairman of the American Council on International Personnel, Testimony, in Subcommittee on Immigration and Claims of the House Committee on the Judiciary, *Hearings on the H-1B Professional Worker Program*, 106th Cong., 1st sess., August 5, 1999, http://www.house.gov/judciary/frag0805.htm.

10. U.S. Department of Commerce, Office of Technology Policy, "America's New Deficit: the Shortage of Information Technology Workers," Fall 1997; OTP, "Update: America's New Deficit," January 1998; OTP, "The Digital Work Force: Building Infotech Skills at the Speed of Information," June 1999, cited hereafter as "The Digital Workforce"; and Senate Committee on the Judiciary, *Hearing on the High-Tech Worker Shortage and U.S. Immigration Policy*.

11. Virginia Polytechnic Institute, "Help Wanted: A Call for Collaborative Action for the New Millennium," March 1998.

12. Ibid., p. 21.

13. "The Digital Work Force," p. 5.

14. Ibid., p. 25.

15. Douglas Braddock, "Occupational Employment Projections to 2008," Bureau of Labor Statistics *Monthly Labor Review*, November 1999, p. 55.

16. "The Digital Work Force," p. 5.

17. Ibid., p. 9.

18. U.S. General Accounting Office, "Immigration and the Labor Market: Nonimmigrant Alien Workers in the United States," GAO/PEMD-92-17, April 1992, p. 10.

19. The changes made by the Immigration Act of 1990 (Pub. L. No. 101-649) went into effect in October 1991.

20. This view soon proved completely unfounded and misguided. Backlogs of employment-based permanent residence cases to be processed and approved increased to as long as four years, making it wholly unrealistic to expect that any employer could wait that long to bring a badly needed professional to the United States without first relying on the H-1B status.

21. Based on November 9, 1999, telephone interview with former U.S. representative Bruce Morrison, chairman of the House Subcommittee on Immigration at the time of the passage of the Immigration Act of 1990.

22. Those attestations are included in the Labor Condition Application, which is submitted to the U.S. Department of Labor.

23. "The Digital Work Force," p. 16.

24. American Competitiveness and Workforce Improvement Act (ACWIA), Title IV, Pub. L. no. 105-277. In addition to setting new caps, ACWIA imposed a battery of new restrictions on employers, particularly those deemed to be "H-1B dependent." To silence protectionist voices alleging that

foreign workers displace U.S. workers and that exploitative employer practices hurt both domestic and foreign national professionals, Congress included sweeping new recruitment and employment restrictions in the legislation. Employers who violate any of the ACWIA provisions face stiff penalties, including fines of up to $35,000 for severe violations and debarment from further use of the H-1B status for up to three years. In addition, the Department of Labor has been given greater authority to investigate complaints and initiate random "spot checks" of employers with past violations. The proposed regulations implementing ACWIA were published by DOL in the *Federal Register* on January 5, 1999, but are not expected to become final before early 2000.

25. The U.S. Immigration and Naturalization Service stopped approving new H-1B petitions in the spring of 1999 and apparently erroneously approved petitions in excess of the 115,000 cap for FY99. Current demand far outstrips the supply of H-1Bs. See letter dated October 5, 1999, from Sen. Spencer Abraham, chairman of the Senate Immigration Subcommittee, to Doris Meissner, commissioner of the INS, copy in authors' files; and Diane Lindquist, "INS Handed Out High-Tech Visas Lavishly, May Have Exceeded Legal Cap by as Many as 20,000," *San Diego Tribune*, October 9, 1999.

26. Michael M. Weinstein, "Economic Scene: Cream in Labor Market's Churn: Why Job Losses Are Rising amid Job Hunters' Nirvana," *New York Times*, July 22, 1999.

27. Fragomen.

28. Quoted in Rob Kaiser, "Visa Shortage Boosts Business Overseas," *Bergen Record*, December 13, 1999.

29. Rodgers, p. 35.

30. Kenneth M. Alvares, Testimony, in Senate Committee on the Judiciary, *Hearing on the High-Tech Worker Shortage and U.S. Immigration Policy*, p. 54.

31. Susan Williams DeFife, Testimony, in Subcommittee on Immigration of the Senate Committee on the Judiciary, *Hearing on American's Workforce Needs in the 21st Century*, 106th Cong., 1st sess., October 21, 1999, http://senate.gov/judiciary/102199sd.htm.

32. Spencer Abraham, Opening remarks before the Senate Subcommittee on Immigration, in ibid.

33. The data were obtained in electronic format from Tom Schierling, DOL Wage and Hour Administration, in October 1999. This information is compiled by DOL for presentation at quarterly meetings with the Information Technology Association of America

34. The total number of visas is based on INS quarterly data submitted to Congress on H-1B petitions granted, as reported in a November 9, 1999, telephone interview with Theresa Cardinal Brown of the American Immigration Lawyers Association:

FY92: 48,645
FY93: 61,591
FY94: 60,279
FY95: 54,178
FY96: 55,141
FY97: 65,000
FY98: 65,000
FY99: 115,000 (estimated, number may actually be higher)
Total: 524,834

35. Joint Economic Committee of Congress, *Economic Indicators*, November 1999, p. 5.

36. See DOL enforcement data referenced previously. "Willful" violations are now defined as those in which there is a "willful failure" to pay the correct wages or a "willful misrepresentation of material fact" in connection with the very complex wage and record-keeping requirements of the statute and Labor Department regulations. INA, § 212(n)(2)(C). Before the recent ACWIA changes, the standard for finding willful violations was "substantial failure" to comply.

37. Estimates of the size of the IT workforce vary. The 2 million estimate comes from "The Digital Work Force," p. 24. By contrast, the February 1997 Information Technology Association of America–Virginia Polytechnic Institute study, *Help Wanted: The IT Workforce Gap at the Dawn of a New Century* (Arlington, Va.: ITAA, 1998), estimated the core IT workforce at 3.5 million.

38. Stuart Anderson, "Widespread Abuse of H-1Bs and Employment-Based Immigration? The Evidence Says Otherwise," *Interpreter Releases*, May 13, 1996.

39. William R. Yates, Testimony, in Subcommittee on Immigration and Claims of the House Committee on the Judiciary, *Oversight Hearing on Non-immigrant Visa Fraud*, 106th Cong., 1st sess., May 5, 1999, http//www.house.gov/judiciary/yate0505.htm.

40. Michael R. Bromwich, Testimony, in Subcommittee on Immigration and Claims of the House Committee on the Judiciary, *Oversight Hearing on Non-immigrant Visa Fraud.*

41. According to the Bureau of Labor Statistics,

the seasonally adjusted civilian labor force figure for November 1999 was 139.8 million. Regarding turnover, see Bolaji Ojo, "Tighter Labor Market Costly to Tech Sector," *Electronic Buyers News*, September 6, 1999.

42. "The Digital Work Force," pp. 41–46.

43. Ojo discusses BLS reports of labor market tightening in the high-tech sector. Because of tight market conditions and raiding by competing employers, the annual turnover rate in Silicon Valley is between 20 percent and 30 percent, well above the national average of 13 percent to 18 percent. See Michael Murray, vice president for Human Resources at Microsoft, Prepared statement in support of testimony, in Senate Committee on the Judiciary, *Hearing on the High-Tech Worker Shortage and U.S. Immigration Policy*, pp. 19–30.

44. "The Digital Work Force," p. 41. Assumptions about biases in government wage surveys are based on a telephone interview with Theresa Cardinal Brown of the American Immigration Lawyers Association, November 9, 1999.

45. The 1999 private surveys discussed in "The Digital Work Force," pp. 43–46, include those of the Institute of Electrical and Electronics Engineers; *Information Week;* Datamasters; *Computerworld;* and the Systems Administration, Networking and Security Institute.

46. Bronwyn Fryer, "Two Years after IT Salaries and Bonuses Skyrocketed to Record Highs, Managers Report Again They Have Put a Stop to the Madness, Giving Traditional Increases to All But a Prized Few," *Computerworld*, September 6, 1999.

47. "The Digital Work Force," p. 47; and Robert Petersen and James Forcier, "The Economics of the Information Technology Worker Shortage," *San Francisco Examiner*, April 25, 1998.

48. Julian Simon, "Immigration: The Demographic and Economic Facts," Cato Institute and the National Immigration Forum, December, 1995. The extensive literature reviewed by Simon includes research studies by George J. Borjas, David Card, Michael Fix, and Jeffrey S. Passel. For a full listing, consult the bibliographic references in Simon.

49. Jagdish Bhagwati, "A Close Look at the Newest Newcomers," *Wall Street Journal*, September 28, 1999. See also Jagdish Bhagwati, "Immigration Debate Takes Skill," *Wall Street Journal*, October 13, 1999.

50. Gordon H. Hanson and Matthew J. Slaughter, "The Rybczynski Theorem, Factor Price Equalization, and Immigration: Evidence from U.S. States," National Bureau of Economic Research Working Paper 7074, April 1999. The Slaughter-Hanson paper covers small regions, such as states, groups of states, or small countries. It remains unclear what conclusions can be drawn about the impact on the United States as a whole. This is a subject for future research.

51. In its comments on the Notice of Proposed Rulemaking issued by DOL regarding the H-1B program, dated February 19, 1999, the American Immigration Lawyers Association criticized DOL's estimate of employer compliance costs as "groundless."

52. Under ACWIA, an employer must pay an H-1B worker for any nonproductive time after employment begins. This means that, during temporary economic downturns, an employer would need to terminate the employee rather than simply place the employee on unpaid leave or temporarily reduce the work schedule. For a discussion of these and other regulatory burdens imposed by ACWIA, see A. James Vazquez-Azpiri and Alan Tafapolsly, "The Practical Impact of the New Employer Obligations of the American Competitiveness and Workforce Improvement Act," *Bender's Immigration Bulletin* 4, no. 1 (January 1, 1999).

53. Murray, p. 26.

54. Based on telephone interview with Phyllis Eisen on November 9, 1999. See also National Association of Manufacturers' Center for Workforce Success and Grant Thornton LLP, *The Skills Gap* (Washington: NAM, 1998).

55. Ibid.

56. Murray.

57. See "The Digital Work Force," chap. 8.

58. Laura D'Andrea Tyson, "Open the Gates Wide to High-skilled Immigrants," *Business Week*, July 5, 1999, p. 16.

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