
Current US High-Skilled Immigration System

This chapter briefly describes how the present US high-skilled immigration system operates and who the main beneficiaries are. However, it is crucial to first highlight a very important yet frequently ignored technical feature that concerns all data on employment-related visa issuance. When linking any such visa data with labor-market outcomes, it must be kept in mind that visa data are invariably “gross” data. As such, visa data cannot be directly related to developments in the net job data, which include the vast majority of regularly issued official labor-market statistics.¹ Data on employment-related visas can instead be said to most closely resemble gross data on job openings, which are available only from the Bureau of Labor Statistics (BLS) in relative aggregate categories.² No corresponding data are available from any source on the number of immigrants who lose their jobs—i.e., visa-related gross job destructions.

The US immigration system distinguishes between permanent and temporary high-skilled immigration.

Permanent High-Skilled Immigration

Every year since 2000 approximately 1 million aliens have obtained legal permanent resident (LPR) status in America.³ The majority, as mentioned in the previous chapter, are family-sponsored immigrants. But under the

1. See Kirkegaard (2005) for an elaborate treatment of this issue.

2. Data from the Bureau of Labor Statistics, Business Employment Dynamics Program, available at www.bls.gov/bdm/home.htm.

3. See Department of Homeland Security data at www.dhs.gov.

Immigration and Nationality Act of 1990, a total of 140,000 employment-based immigrant visas can be allocated each fiscal year—from October 1 to September 30—for workers and their spouses and children.⁴ Compared with the annual 65,000 congressional cap on H-1B visas, for instance, this number is quite large, but it is not immediately clear how many of these 140,000 are workers and how many are dependents (spouses or children only). Further, not all of the 140,000 eligible for an employment-based immigrant visa are high-skilled because needed unskilled workers may also qualify.

More important, however, from the perspective of measuring the inflow through this channel of foreign high-skilled workers to the United States, one must distinguish between “new arrivals” who got their employment-based green card (LPR status) abroad and individuals going through an “adjustment of status”—i.e., changing from a temporary (non-immigrant) visa status to LPR status—while already inside the United States. The “adjustment of status” channel does not necessarily imply that a new high-skilled worker has been added to the US workforce but rather that one who is already part of the workforce here or perhaps a graduating foreign student is allowed to remain permanently. About two-thirds of the total of about 1 million new individuals in LPR status each year go through an adjustment in status. But as can be seen in figure 2.1, the share of high-skilled employment-based immigrants who adjust their status here has been significantly higher at about 80 percent over the last decade and rose to more than 90 percent in 2005 and 2006. This trend is most pronounced among those in the highest-skilled E-1 and E-2 categories.

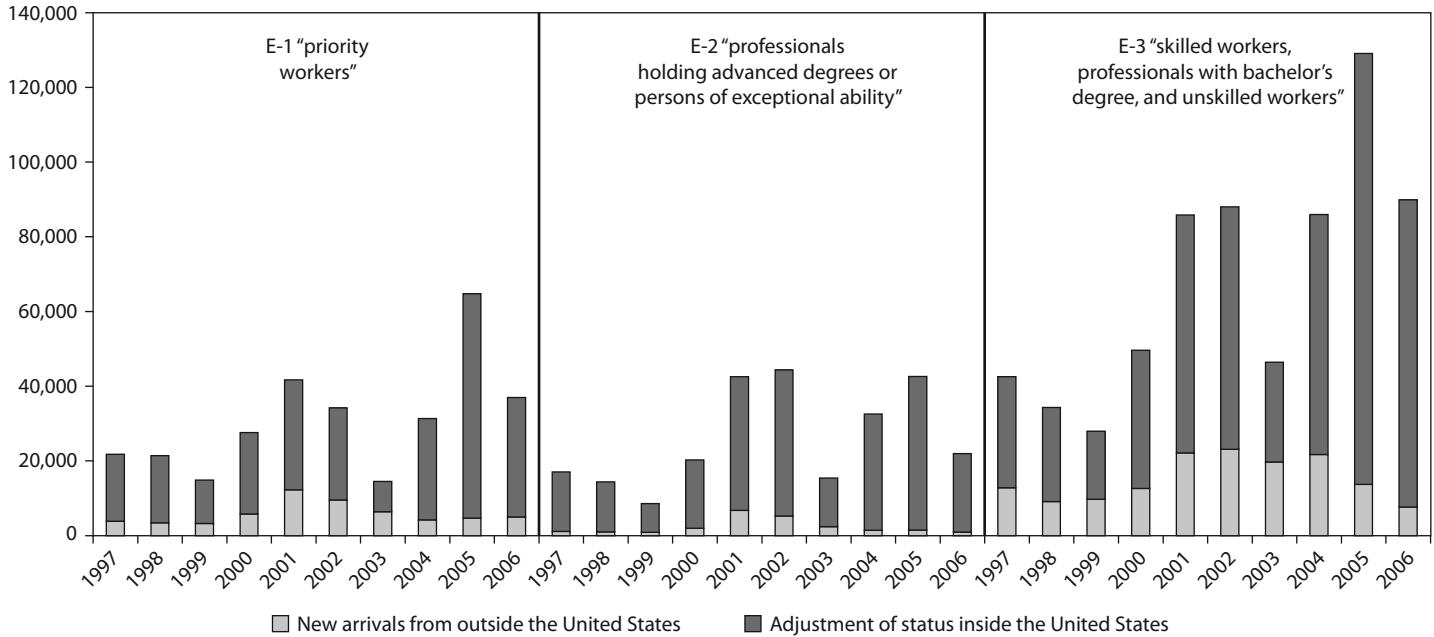
While the extraordinarily large number of adjustments in status in recent years has been linked to temporary changes in US immigration laws,⁵ it is nonetheless evident that the green card system, rather than being a major channel for bringing new high-skilled workers to the United States,

4. These 140,000 visas are split into five categories: E-1, E-2, E-3, E-4, and E-5. Different rules concerning labor certification, occupations, and skills govern each category. For more information, see the Department of State website at <http://travel.state.gov>. For the purposes of this policy analysis, only E-1 (priority workers), E-2 (professionals holding advanced degrees or persons of exceptional ability), and E-3 (skilled workers, professionals with a bachelor's degree, and unskilled workers) will be considered high-skilled. The E-3 (the largest) category also includes unskilled workers, hence the data total presented here for skilled workers has an upward bias.

5. The American Competitiveness in the 21st Century Act of 2000 allowed for 130,137 unused employment-based visas from 1999 and 2000 to be made available to E-1, E-2, and E-3 preference employment-based immigrants. Approximately 94,000 of these were used in 2005. The Real ID Act of 2005 further allowed for the recapture of 50,000 unused employment-based visas from 2001 to 2004; 5,125 of these were used in 2005 and 33,341 in 2006. Note also that the annual 140,000 limit may be topped up with any unused family-sponsored visas in the previous fiscal year. As a result, the 140,000 limit is hardly set in stone. See Office of Immigration Statistics (2006, 2007).

Figure 2.1 High-skilled employment-based legal permanent resident flow, FY1997–FY2006

number of workers



Note: "New arrivals to the United States" equals number of employment-based immigrant visas issued at overseas US consular offices. Data include workers, spouses, and dependents.

Sources: US Department of State, Bureau of Consular Affairs, *Reports of the Visa Office*, various years; US Department of Homeland Security, *Yearbooks of Immigration Statistics*, various years.

functions overwhelmingly as a mechanism to ensure that those already legally employed in other visa categories remain in the US workforce. As such, with employment-based green card holders making up only a small part of new foreign entrants to the US workforce, the high-skilled green card program is intricately linked to the primary gateway through which high-skilled workers enter the United States, namely the temporary high-skilled work visa programs (see next section). If reform of either the high-skilled green card program or the high-skilled temporary visa programs is to succeed, then policymakers must acknowledge their symbiotic link. Reform of US high-skilled immigration should, therefore, encompass both permanent and temporary immigration.

The overwhelming use of the LPR system for adjustment of status gives rise to an additional major constraint for individuals already inside the United States. Section 202 of the Immigration and Nationality Act stipulates that the per-country limit for all family and employment-based immigrant visas is 7.1 percent of the annual total, or 25,620.⁶ This per-country numerical limit is the reason why citizens of some countries (notably India and China) face oversubscribed categories and hence a very lengthy application process.

Two agencies are involved in the immigrant visa process: the Department of Homeland Security's US Citizenship and Immigration Service (USCIS),⁷ which processes visa applications, and the Department of State, which issues the visas and is responsible for maintaining the limits (i.e., keeping track of the number of visas issued). The State Department publishes its count and visa availability each month in its *Visa Bulletin*, which is released two weeks before the first of every month. The USCIS defines the process for issuing green cards and follows the monthly *Visa Bulletins* in determining when to accept applications for adjustment of status.

Eligible foreign nationals in the United States can adjust their status to LPR—in other words, submit their “final” green card applications—when their priority or cut-off date (i.e., place in line) is current according to the *Visa Bulletin*. These dates vary among employment categories and nationalities. For instance, in June 2007 cut-off dates were current for all but four countries, China, India, Mexico, and the Philippines. These dates in June 2007 for E-2 applicants from China and India were January 2006 and April 2004, respectively, while for E-3 applicants the date was June 2003 for both countries as well as Mexico and June 2005 for the Philippines.⁸ This means that for Indian E-2 applicants, for instance, only those applications filed

6. The limit for dependents is 2 percent, or 7,320.

7. On March 1, 2003, functions of the US Immigration and Naturalization Service (INS) transitioned to the USCIS.

8. No cut-off date existed for E-1 priority workers in June 2007. See Department of State, *Visa Bulletin for June 2007*, available at <http://travel.state.gov>.

more than three years ago would in June 2007 start being processed in the current fiscal year.

The huge pent-up demand for LPR status among high-skilled workers already inside and employed in the United States is amply illustrated by the administrative upheaval that rattled this system in July and August 2007. In its initial *Visa Bulletin for July 2007* (issued on June 12, 2007), the Department of State announced that all employment-based green card categories, except the third “other workers” category, would be current in July 2007 and removed the hitherto implemented cut-off dates for Indian, Chinese, Mexican, and Filipino high-skilled workers. This decision allowed eligible applicants in all employment categories, regardless of nationality and cut-off dates, to apply for adjustment of status in July.⁹

The State Department made this announcement because it saw many unused visa numbers as the end of FY2007 (September 30) rapidly approached. In past years, many State Department-allocated visa numbers were never used and thus lost because the USCIS, plagued by administrative delays, did not manage to process enough applications to fully use the annual quota. Not wishing to “waste” large numbers of visas this year, the State department intended to front-load visa numbers to allow a large number of applicants to file for adjustment.¹⁰

This announcement from the State Department evidently “surprised” the USCIS. Realizing that it would not be able to act on so many applications in such a short span of time, it announced a series of changes to the application process and suspended services such as premium processing of immigrant visa petitions (form I-140).¹¹ Through these tactics, the agency hoped to slow the submission of applications in July.

However, two weeks later, on July 2, 2007—the day the new State Department announcement would have gone into effect—the department reversed its decision, announcing that visa numbers for all employment categories, regardless of nationality, would be unavailable until October 1, 2007, start of the next fiscal year. The department cited the sudden back-

9. See Department of State, *Visa Bulletin for July 2007*, available at <http://travel.state.gov>.

10. See section E in the *Visa Bulletin for July 2007*, Department of State, available at <http://travel.state.gov>.

11. See USCIS Update: USCIS Announces Temporary Suspension of Premium Processing Service for Form I-140, Immigrant Petition for Alien Worker, available at www.uscis.gov. Premium processing allows petitioners, attorneys, or other representatives to pay an extra \$1,000 fee and be assured of a completed process within 15 calendar days; see “How Do I Use the Premium Processing Service?” USCIS, www.uscis.gov. Given the importance of this decision for the petitioners involved, it should be evident that this fee has clear similarities to a traditional “system greasing” bribe, usually paid to government officials in corrupt countries. As such, the premium processing system is not unlike the US political campaign contribution rules in putting an official, institutional, legal façade to what elsewhere is condemned as corruption.

log reduction efforts of the USCIS as the reason behind the reversal of the decision. The USCIS had apparently used up almost 60,000 employment-based visa numbers in June, thus exhausting all numbers available to these categories under the FY2007 annual numerical limit. The same day the USCIS announced that it was “rejecting applications to adjust status filed by aliens whose priority dates are not current under the revised *July Visa Bulletin*.”¹² This announcement left sponsoring US employers and applicants wondering whose dates were current in July and what would happen to rejected applications.

Following a public outcry¹³ and a rebuke from the chairwoman of the House Immigration Subcommittee,¹⁴ in mid-July 2007, the USCIS and the Department of State reversed themselves again and announced that the initial *Visa Bulletin of July 2007* would hold, thus allowing all eligible applicants, regardless of nationality and cut-off dates, to file their adjustment of status applications no later than August 17, 2007.¹⁵ According to its preliminary estimates, the USCIS had—during the one-month “window of opportunity” for eligible applicants—received more than 300,000 applications for LPR status from high-skilled workers. Compare this with an average of just above 50,000 applications per month earlier in 2007. Evidently, plenty of high-skilled foreign workers already employed in the United States wish to stay permanently.

The cut-off dates for Chinese, Indian, and Filipino high-skilled workers were reimposed on August 17, 2007. So those who missed the “window of opportunity” will now have to wait for years to even submit their final applications. And those who did submit will have to wait for several months or even years to receive the green card because of the high volume of applications the USCIS received in July–August 2007. Such long, fluctuating, and arbitrary wait times will invariably force high-skilled workers already employed in the United States as well as graduating students to leave the country as they graduate from universities or as their temporary work permits run out. In other words, current bottlenecks in the LPR system may push US-trained graduates or already employed high-skilled workers, especially from the countries mentioned above, out of the US workforce.

12. See Department of State, Update on July Visa Availability (revised *July Visa Bulletin*), available at <http://travel.state.gov>; and USCIS Update: USCIS Announces Update on Employment-Based Adjustment of Status Processing, available at www.uscis.gov.

13. See Moira Herbst, “The Gandhi Protests Pay Off,” *BusinessWeek*, July 17, 2007.

14. See “US Agency Is Swamped by Requests for Visas,” *New York Times*, August 18, 2007 and the website of Congresswoman Zoe Lofgren at <http://lofgren.house.gov>.

15. See USCIS Update: USCIS Announces Revised Processing Procedures for Adjustment of Status Applications, available at www.uscis.gov.

Temporary High-Skilled Immigration

The United States offers two main temporary visas for employment: L-1 for intracompany transferees (in managerial, executive, or specialty knowledge positions)¹⁶ and H-1B, which is an employer-sponsored visa for “specialty occupation” workers.¹⁷

L-1 Visa Program

Few data are available on a regular basis from official sources on the L-1 visa category and on the characteristics of the foreign nationals entering the US workforce on such visas. Figure 2.2 shows the issuance of L-1 visas at US consular offices between fiscal years 1996 and 2006. While it is technically possible to adjust visa status into L-1 while inside the United States in a manner similar to the LPR system described above, the transfer requirement of the L-1 visa makes it likely that the numbers in figure 2.2 for L-1 issuance outside the United States will include the overwhelming majority of L-1 recipients inside the United States.

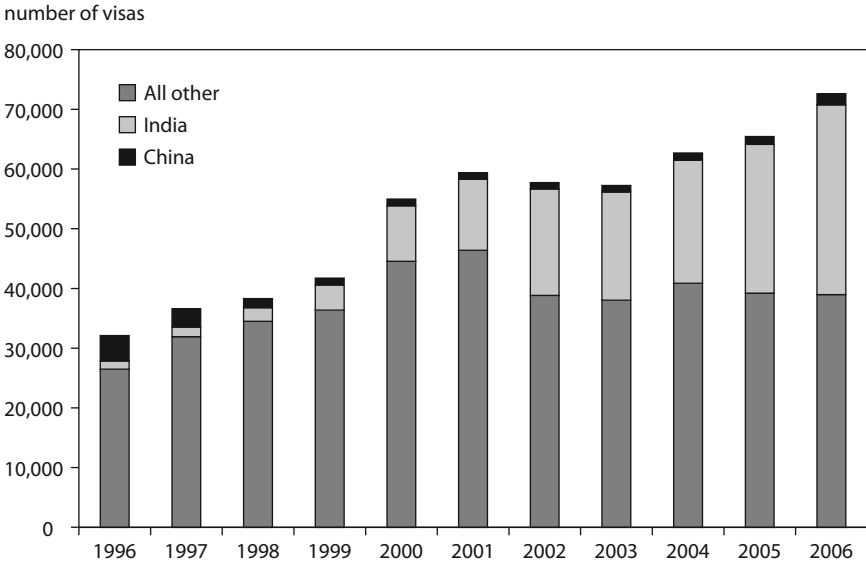
No numerical quotas exist for L-1 visas, and their issuance—assuming unchanged acceptance criteria over time¹⁸—should therefore broadly reflect the desire of multinational companies to transfer relevant high-skilled employees to the United States. Given the ongoing global integration of the US economy, it is not surprising that the overall issuance of L-1 visas has been rising in the last decade (figure 2.2). It is noteworthy though that Indian nationals have accounted for essentially the entire increase in L-1 visa issuance since 2000, while issuance to citizens of the rest of the world has remained flat. Given that L-1 issuance to Chinese nationals has hardly budged between 1996 and 2006, this increase in issuance to Indian nationals can scarcely be attributed solely to the ongoing global integration of

16. The L-1 visa category applies to intracompany transferees who, within the three preceding years, have been employed abroad continuously for one year and who will be employed by a branch, parent, affiliate, or subsidiary of that same employer in the United States in a managerial, executive, or specialized knowledge capacity. It is valid for up to 7 years (5 years for specialized knowledge capacity). No labor certification is necessary. See classifications of temporary workers at <http://travel.state.gov>.

17. The H-1B visa category applies to persons in a specialty occupation that requires the theoretical and practical application of a body of highly specialized knowledge requiring completion of a specific course of higher education, generally the equivalent of a bachelor's degree. This visa classification requires a labor attestation issued by the Department of Labor.

18. The legal criteria for the L-1 visa category have not changed substantially over the period shown in figure 2.2. However, a number of changes concerning worksite practices and outsourcing were enacted as a result of new rules attached to the Omnibus Appropriations Act of FY2005. See USCIS press release, USCIS Implements L-1 Visa Reform Act of 2004, June 23, 2005, at www.uscis.gov.

Figure 2.2 Issuance of L-1 visas at US consular offices, FY1996–FY2006



Source: US Department of State, Bureau of Consular Affairs (2000 to 2006).

the Indian economy.¹⁹ It is therefore clear that two simultaneous trends in L-1 visa issuance have existed in recent years: rapid increases concerning Indian nationals and stability concerning citizens of the rest of the world.

In June 2007 the offices of US Senators Richard J. Durbin and Charles Grassley published a specially requested USCIS list of companies that used the L-1 visa in fiscal years 2005 and 2006.²⁰ The full list for 2006 consists of approximately 18,000 companies, the top 25 of which are listed in table 2.1.

Considering the dearth of and obvious public interest in precise official data concerning the use of US high-skilled visa programs, particularly L-1 and H-1B (see below), it is both remarkable and extremely unfortunate that a special bipartisan request by two US senators is required for such highly relevant data to be made public. Certainly, the public debate over

19. This must be the conclusion, even when one allows for the fact that India's economic expansion beyond its borders has been led to a far larger degree by private-sector companies and foreign acquisitions (especially in Europe, with companies like Mittal Steel Company and Tata Steel taking over Arcelor and Corus, respectively).

20. See Office of US Senator Charles Grassley press release, Grassley and Durbin Release New Information on L Visas: List of Companies Using the L Visa, June 26, 2007, available at <http://grassley.senate.gov>.

Table 2.1 Top 25 L-1 employers, FY2006

Rank	Company	Sector	Home country	Number of visas
1	Tata Consulting Systems	IT services/software	India	5,408
2	Cognizant Technology Solutions	IT services/software	India	1,888
3	Wipro Ltd.	IT services/software	India	1,187
4	IBM	IT services/software	United States	614
5	Hewlett-Packard	IT hardware	United States	417
6	Satyam Computer Services	IT services/software	India	336
7	Intel Corporation	Semiconductors	United States	314
8	Caritor, Inc.	IT services/software	United States	280
9	Ernst & Young	Business services	United States	249
10	HCL Technologies	IT services/software	India	244
11	Infosys Technologies, Inc.	IT services/software	India	235
12	Patni Computer Systems, Inc.	IT services/software	India	221
13	Schlumberger	Oil services	France	198
14	Syntel	IT services/software	United States	197
15	M&E Group, Inc.	n.a.	n.a.	194
16	Exxon-Mobil	Oil	United States	187
17	Kanbay, Inc.	IT services/software	India	178
18	Halliburton	Oil services	United States	157
19	PriceWaterhouse Coopers	Business services	United States	152
20	Oracle, Inc.	IT hardware	United States	148
21	Nokia	Mobile telephony	Finland	141
22	Microsoft	IT services/software	United States	133
23	Perot Systems	IT services/software	United States	121
24	Deloitte	Business services	United States	112
25	HSBC	Financial services	United Kingdom	103

(table continues next page)

high-skilled immigration in the United States would benefit tremendously from such illuminating data if they were published regularly by relevant US immigration authorities. There seem to be no plausible reasons for authorities to not regularly publish such high-skilled immigration data.

Table 2.1 shows that in FY2006, the top 25 users of the L-1 visa program overwhelmingly were Indian information technology (IT) services and software companies, which accounted for approximately three-quarters

Table 2.1 Top 25 L-1 employers, FY2006 *(continued)*

Grouping	Share (percent)	Number of visas
Total top 25		13,414
Total for ~18,000 companies on list		~49,200
Top 25 share of total	27	
India top 25	72	9,697
US/other top 25	28	3,717
IT services top 25	82	11,042
Other sectors top 25	18	2,372
Share of total companies with five or fewer L-1 visa petitions	~95	

n.a. = not available

Note: The source of the data in this table is a comprehensive list of companies using the L-1 visa program in FY2006. The list contains numerous misspellings and multiple entries for different legal entities that are part of the same company. Hence the precise numbers attached to each company must be viewed with caution. This data uncertainty, however, is too small to affect the conclusions drawn from these data.

Source: Office of US Senator Charles Grassley press release, Grassley and Durbin Release New Information on L Visas: List of Companies Using the L Visa, June 26, 2007, available at <http://grassley.senate.gov>; author's calculations.

of the filings among this group and about 20 percent of the total number of L-1 petitions. Indeed, it can be seen in table 2.1 that the Indian companies are concentrated at the very top, occupying seven of the top 12 spots, while being absent from the lower half of table 2.1. Also, Indian companies have a negligible presence among the rest of the approximately 18,000 companies that in FY2006 used the L-1 program, 95 percent of which requested only five or fewer L-1 visas per company. Due to the different data sources in question, it is not possible to positively conclude that L-1 visas requested by Indian IT services companies go to Indians. Yet, it is nonetheless overwhelmingly likely that the small number of Indian IT services companies listed in table 2.1 account for the vast majority of the rise in overall Indian use of the L-1 visa program (figure 2.2).

While no long time-series data are available for company use of the L-1 visa program,²¹ the dual trend in this program indicates rising use of such visas by a limited number of intense users from the Indian IT services industry and stable and diverse use among a very large group of multinational companies from different economic sectors.

21. The data published by Senators Grassley's and Durbin's offices do, however, show very similar levels for the top L-1 users in fiscal years 2005 and 2006.

H-1B Visa Program

Available data on the H-1B program, especially on visa issuance and characteristics of recipients, are relatively more detailed than those available for L-1 visas. Table 2.2 shows select data for the last six years, with more detail available in table A.2 in the statistical appendix. Box 2.1 estimates the potential number of H-1B visa holders inside the United States at a given point in time.

Table 2.2 shows data on the characteristics of successful petitions for H-1B visas granted by the USCIS from fiscal years 2000 to 2005 (latest available). The H-1B visa is initially valid for three years, with a three-year extension available. The data are therefore split into two categories: initial employment (first three-year period) and continuing employment (second three-year period). This section focuses on petitions granted for initial employment.

Several things are clear in table 2.2: First it is immediately clear that the number of actual H-1B petitions granted by the USCIS and the congressional cap on H-1B visas of 65,000 are almost wholly unrelated. The total number of H-1B petitions granted not only is much higher than the congressional cap but also actually rose by more than 70,000 from FY2003 to FY2004, despite the fact that the cap was reduced from 195,000 in FY2003 to 65,000 in FY2004. The reason for this seeming discrepancy is not visa fraud on a massive scale, but rather the large number of H-1B petitions that by congressional decision is exempt from being counted toward the cap of 65,000. These exceptions include all petitions granted for continuing employment, as well as all petitions granted to employers in the educational, nonprofit, research, and medical sectors (see below). Any notion that the congressional cap does, or was ever intended by the US Congress to, function as a serious regulatory instrument for the number of H-1B visas granted to foreign workers must therefore be dismissed.

Second, the total number of H-1B petitions granted fluctuates quite significantly from year to year. After peaking in FY2001, the total number dropped by about 40 percent—about 135,000—in FY2002 and was fairly flat through FY2003 before rising substantially (and even exceeding the congressional cap) by more than 70,000 in FY2004. Unsurprisingly, the majority of this fluctuation is found among petitions granted for initial employment, but some of the FY2004 spike was due to the rise in petitions for continuing employment (up more than 40,000 from FY2003)—a “three-year echo” of the more than 200,000 petitions granted for initial employment during the peak year of FY2001.

As in the LPR system, a distinction should be made between H-1B petitions granted to individuals outside the United States at the time of filing and individuals inside the United States at the time of the employer filing on their behalf. The latter would be a functional equivalent to adjustment

Table 2.2 H-1B petitions granted by the USCIS, initial and continuing employment, by selected characteristics, FY2000–FY2005

Line	Characteristic	FY2000
	H-1B cap legislated by Congress	115,000
1	Total number of H-1B petitions granted by USCIS	257,640
2	Of which: number of H-1B petitions granted, for initial employment	136,787
3	Of which: aliens were outside the United States at the time of employer petition	75,785
4	Of which: aliens were inside the United States at the time of employer petition	61,002
5	Of which: were from India	60,757
5a	Of which: were not from India	76,030
6	Of which: were from China	12,333
7	Of which: started working in computer-related occupations	74,551
7a	Of which: did not start working in computer-related occupations	62,236
8	Of which: started working in IT services industry	n.a.
8a	Of which: did not start working in IT services industry	n.a.
9	Of which: number of H-1B petitions granted for continuing employment	120,853
10	Of which: were from India	63,940
11	Of which: were from China	10,237
12	Of which: continued employment in computer-related occupations	73,875
13	Of which: continued employment in IT services industry	n.a.
14	Fiscal year average unemployment rate for US workers aged 16 and above (percent) ^b	4.0
15	Fiscal year average unemployment rate for computer programmers (percent) ^b	2.3

n.a. = not available

USCIS = US Citizenship and Immigration Service

a. Includes 20,000 H-1Bs for foreign graduates from US universities.

b. Estimated as the average of Q4 (previous year) and Q3 (current year) from Bureau of Labor Statistics and Census Bureau, Current Population Survey (CPS) release (16 years and above) and quarterly data on employed and experienced unemployed persons by detailed occupation and class of worker, table 3 from the CPS (computer programmers).

Note: The shaded rows in the table denote top country of origin, top occupation, and top industry.

FY2001	FY2002	FY2003	FY2004	FY2005	Change, FY2001– FY2002	Change, FY2003– FY2004
195,000	195,000	195,000	65,000	85,000 ^a		
331,206	197,537	217,340	287,418	267,131	-133,669	70,078
201,787	103,584	105,314	130,497	116,927	-98,203	25,183
115,759	36,494	41,895	60,271	54,635	-79,265	18,376
85,320	67,090	63,419	70,226	62,292	-18,230	6,807
90,668	21,066	29,269	60,062	57,349	-69,602	30,793
111,119	82,518	76,045	70,435	59,578	-28,601	-5,610
16,847	11,832	11,144	11,365	10,643	-5,015	221
110,713	25,637	28,879	56,559	52,353	-85,076	27,680
91,074	77,947	76,435	73,938	64,574	-13,127	-2,497
88,613	17,803	19,347	47,362	44,644	-70,810	28,015
113,174	85,781	85,967	83,135	72,283	-27,393	-2,832
130,127	93,953	112,026	156,921	149,932	-36,174	44,895
70,893	43,914	49,897	63,505	61,171	-26,979	13,608
10,483	7,009	8,919	14,893	13,918	-3,474	5,974
80,684	49,477	54,235	70,720	61,515	-31,207	16,485
60,071	35,814	39,323	51,182	43,550	-24,257	11,859
4.3	5.7	6.0	5.6	5.2	+ 1.4	- 0.4
2.7	6.3	6.8	6.0	2.6	+ 3.6	- 0.8

Sources: US Department of State, Bureau of Consular Affairs (2000 to 2006); INS (2000b, 2002a, 2002b); US Department of Homeland Security, Office of Immigration Statistics (2003b, 2004b); USCIS (2006a, 2006b). It must be emphasized that the USCIS caveats these reports on H-1B visas by stating that “very little editing has been done to the data,” and there may consequently be some errors in the data. Whether these errors are likely to be systematic cannot be discerned.

Box 2.1 How many H-1B visa holders are there in the United States?

Estimating the number of H-1B visa recipients inside the United States at any given point in time is fraught with difficulty, as gross data are available only for the number of visa petitions granted and actual visas issued. Any estimate will therefore have to rely on assumptions concerning the departure date of the visa holder. The intuitively most sound approach seems to be to assume that an H-1B visa holder remains employed within the United States for the entire duration of the visa.

Assuming, therefore, that H-1B visa holders remain in the United States for the full three years their visa is valid and drawing on the data in table 2.2 and appendix table A. 2, one is presented with several options for estimating a total potential number of H-1B visa holders inside the United States. It is important to note that such estimates represent an upper-bound estimate. These are presented in table 2.B1.

Table 2.B1 Total potential number of H-1B visa holders in the United States, 2001–05

Category	2001	2002	2003	2004	2005
Total potential H-1B petitions approved	n.a.	786,383	746,083	702,295	771,889
Total potential H-1B visas issued	411,446	413,285	387,191	364,513	370,261
Total potential Indian H-1B visa holders	n.a.	351,238	305,707	267,713	321,253
Total potential H-1B visas issued to Indians	190,670	179,620	160,335	149,994	159,561
Total potential H-1B visa holders in computer-related occupations	n.a.	414,897	349,625	285,507	324,261

n.a. = not available

Sources: Table 2.2 and appendix table A.2.

If one looks first at the total number of H-1B petitions, one can see that about 750,000 foreign high-skilled workers could potentially have been legally present in the United States on H-1B status between 2002 and 2005, assuming that all approved petitions were used and everyone stayed for the entire three-year period. This upper-bound estimate equals about 1.4 to 1.5 percent of the total US high-skilled population with at least a bachelor's degree over this period.¹

At the same time, however, row 2 shows that only about half as many were issued H-1B visas and could have been present from 2001 to 2005. This number excludes all

(box continues next page)

Box 2.1 How many H-1B visa holders are there in the United States? *(continued)*

aliens who changed their visa status to H-1B while already inside the United States and therefore is significantly lower than the actual total at any given time. As such, the true number of H-1B visas holders inside the United States lies in the range of numbers in rows 1 and 2,² or between 370,000 and 770,000 in 2005.

A similar estimation yields a number for potential Indian H-1B holders of between 160,000 and 320,000 in 2005 (rows 3 and 4). A potential 324,000 H-1B visa holders in computer-related occupations could have been present in the United States in 2005, which was 90,000 fewer than in 2002 but 40,000 more than in 2004 (row 5). No data exist for the number of H-1B visas actually issued to aliens in computer-related occupations, and no lower-bound estimate is therefore available for this category.

1. In 2005 there were 54.7 million US residents with at least a bachelor's degree (US Census Bureau at www.census.gov).
2. More sophisticated estimates can be made, for instance, by adjusting the population numbers for deaths, projected levels of emigration from the United States (i.e., early returns), and transfers to permanent US residence. See Lowell (2000). However, introducing such additional assumptions in the estimations is both beyond the scope of this policy analysis and unlikely to materially affect the results.

in status in the LPR system. All H-1B petitions granted for continuing employment must fall in this latter category, as do a little more than half of the petitions for initial employment (line 4 in table 2.2).²² INS (2000b) data indicate that the majority of individuals for whom a petition for initial employment is filed while inside the United States are students adjusting their status from F-1 student visa to H-1B temporary worker. Given that the one-year optional practical training (OPT) period of legal employment is available to all F-1 students graduating from US universities for a minimal fee compared with the costs of an employer filing for an H-1B visa,²³ it seems reasonable to assume that many students transferring to H-1B status do so while already employed in the United States on OPT and as such do not contribute to new inflows of high-skilled workers to the US economy. However, it is certain that this group of foreign students trans-

22. The share of petitions filed for people inside the United States was about 45 percent in 2001 and rose to 65 percent in 2002 before declining to between 50 and 55 percent in 2004–05.

23. In order for a student to enter the 12-month OPT period, he/she must pay only a \$180 fee for the employment authorization form I-765 submitted to the USCIS, compared with employer costs of up to \$5,000 for filing an application for H-1B status, as reported in Anderson (2006).

ferring to H-1B status constitutes a substantial part of the retention of foreign science and engineering (S&E) students highlighted in the previous chapter. Hence it is comforting to note that this group is relatively stable in size at about 60,000 to 70,000 and does not seem to have particularly suffered after 2001.

Moreover, while the annual extra quota of 20,000 H-1B visas made available in May 2005 to foreign graduates with a US master's or higher degree was not exhausted during the remaining five months of FY2005,²⁴ the entire quota of 20,000 visas for FY2006 was exhausted within less than four months into the fiscal year in January 2006.²⁵ The quotas in fiscal years 2007 and 2008 have also been fully used (see below).

By far the most sensitive segment of H-1B issuance is the number of petitions granted for initial employment to individuals outside the United States (line 3 in table 2.2)—in other words, to the segment that introduces new high-skilled workers to the US workforce. It declined by more than 70 percent from FY2001 to FY2002, accounting for more than 80 percent of the total decline that year, while rising more than 40 percent from FY2003 to FY2004, accounting for just under three-quarters of the total rise.

Cross-tabulations of data from different rows in table 2.2 are not available. But data on petitions for initial employment for the top two countries of origin (lines 5 and 6), top occupation (line 7), and top industry (line 8) reveal that, as in the L-1 program, Indian nationals dominate the H-1B program and that most recipients work in computer-related occupations and/or in the IT services industry. Besides, it is clear that a large part of the decline of about 80,000 from FY2001 to FY2002 in initial employment petitions originating from outside the United States is found in all three groups, namely Indian nationals, computer-related occupations, and IT services sector (second column from right). The same is true for the rise in petitions for initial employment during FY2003–FY2004 (far right column). These data thus suggest that one group of workers, namely Indians who are granted initial employment in computer-related occupations in the IT services industry while outside the United States at the time of the petition filing—a group of obvious interest in the offshoring debate—is the most irregular group of all H-1B recipients. While they make up approximately half of all petitions for initial employment, they also account for the vast majority of the fluctuation in the total number of H-1B petitions granted for initial employment.

24. The USCIS announced at the end of June 2005 that it had received only 8,069 petitions. See USCIS press release, USCIS Announces Update Regarding New H-1B Exemptions, June 12, 2005, available at www.uscis.gov.

25. See USCIS press release, USCIS Reaches H-1B Exemption Cap for Fiscal Year 2006, January 18, 2006, available at www.uscis.gov.

At the same time, table 2.2 indicates that use of the H-1B system by employers on behalf of individuals who account for roughly the other half of petitions for initial employment (captured in lines 5a, 7a, and 8a)—i.e., those who are not Indian, not employed in computer-related occupations, or do not work in the IT services sector—is relatively stable at approximately 70,000 to 80,000 petitions per year, excluding the peak year of FY2001.

Similar to the dual trend in L-1 visas, two distinct India-related trends can be identified in the H-1B program: volatility concerning inflow of new (for initial employment) high-skilled workers from India and relative stability concerning the inflow of such workers from the non-India world. Moreover, additional data for the H-1B program indicate that the former trend is concentrated among workers in computer-related occupations and in the IT services sector.

While one should generally avoid comparing gross visa data with labor-market outcomes, it is nonetheless clear from lines 14 and 15 of table 2.2 that the volatile half of H-1B petitions for initial employment tended in both 2001–02 and 2003–04 to behave as one would theoretically expect “data on gross job openings” to behave—i.e., the number of petitions for initial employment fell drastically when US unemployment rose in 2001–02 and rose when US unemployment fell in 2003–04.²⁶ This movement is particularly pronounced when one compares the H-1B initial employment data with the unemployment rate for a key group of workers in the offshoring debate—computer programmers (see below). This group experienced a very large rise in unemployment during 2001–02, which exceeded the unemployment rate for the total economy, but in 2005 returned to essentially full employment at between just 2 and 3 percent unemployment, a level at which it has remained until the last available data for 2007Q2.

At the same time, table 2.2 clearly shows that even as the US unemployment rate among computer programmers was rising in FY2001–02, more than 25,000 new H-1B recipients entered the US workforce in computer-related occupations during that period. As no data are available for the number of foreigners on H-1B visas who exited computer-related occupations in this period, the net employment and wage impact of these movements in this occupational category cannot be immediately discerned (see chapter 3).

Data from the USCIS on the number of H-1B visa petitions granted to individual firms are not available on a regular basis.²⁷ Data for the

26. In some respect it mirrored the experience of the total number of gross private job openings in the US economy, which peaked in 2000Q4 and started to rebound only in 2003Q4. In 2001Q2 US gross job losses for the first time since 1992 exceeded the number of gross job openings. Data from the Bureau of Labor Statistics, available at www.bls.gov/bdm/home.htm.

27. Firm-level data on H-1B foreign labor certification applications are available at the De-

1999–2000 period are available from INS (2000a), and Senators Durbin and Grassley published in June 2007 a special release of the top 200 companies in terms of H-1B recipients in 2006 based on USCIS data.²⁸ Table 2.3 shows the top 25 companies on the senators' list (full list is supplied as table A.3 in the statistical appendix)²⁹ and their home countries and business sectors.

The top 25 account for 35,829 H-1B visas granted in 2006, just below half of the total 77,851 for the top 200³⁰ (data are not yet available for the entire H-1B program for 2006). Indian IT services/software companies clearly dominate the top of the ranking, occupying 7 spots out the top 10 and 13 of the top 25 and accounting for fully two-thirds of the H-1B visas granted in the top 25 (almost 24,000), while US firms in IT services/software, education, financial services, and other sectors account for the remaining third (about 12,000 H-1B visas). These firm-level data thus corroborate the finding in table 2.2 of a substantial group of H-1B recipients from India working in computer-related occupations and the IT services sector. The lack of firm-level time-series data prevents an affirmative analysis of whether the use of the H-1B program by the top Indian IT services firms fluctuates as much as indicated in table 2.2 or whether the fluctuation in table 2.2 is accounted for by other companies recruiting Indian nationals.

Again, however, it must be emphasized that these firm-level data are of a "gross job creation" nature and do not necessarily indicate, for instance, that number one ranked Infosys increased its foreign high-skilled workforce in the United States on H-1B visas by almost 5,000 in 2006 alone. Instead, based on data from the company's filings with the Securities and Exchange Commission (SEC), table 2.4 shows that the number of H-1B visa holders in Infosys in 2006 was up by a still substantial 1,780, when accounting also for foreign workers whose visas expired and who thus subsequently exited this visa status and presumably left the United States. It should, however, be emphasized that the extensive use of a "project-based on-site delivery" model by companies like Infosys, where individual

partment of Labor FLC database at www.flcdatacenter.com. These data capturing "an interest in applying," however, are very different from the actual number of H-1B petitions granted by USCIS and hence should not be used to analyze visa quantities or the number of actual new foreign high-skilled immigrants entering the US labor market.

28. See Office of US Senator Charles Grassley press release, Grassley and Durbin Release New Information on L Visas, June 26, 2007, available at <http://grassley.senate.gov>.

29. The full list of 200 companies is from *InformationWeek*, May 17, 2007, based on data obtained by this news organization from the offices of the senators in question.

30. It is not clear from the statements from the offices of Senators Durbin and Grassley whether the data in table 2.3 equal all H-1B petitions granted to each company or only those for initial employment. The assumption here will be that these data incorporate all H-1B petitions granted.

Table 2.3 Top 25 H-1B employers, 2006

Rank	Company	Sector	Home country	Number of visas
1	Infosys Technologies, Ltd.	IT services/software	India	4,908
2	Wipro Ltd.	IT services/software	India	4,002
3	Microsoft Corporation	IT services/software	United States	3,117
4	Tata Consultancy Services Ltd.	IT services/software	India	3,046
5	Satyam Computer Services Ltd.	IT services/software	India	2,880
6	Cognizant Tech Solutions Corporation	IT services/software	India	2,226
7	Patni Computer Systems, Inc.	IT services/software	India	1,391
8	IBM Corporation	IT services/software	United States	1,130
9	Oracle, Inc.	IT services/software	United States	1,022
10	Larsen & Toubro Infotech Ltd.	IT services/software	India	947
11	HCL America, Inc.	IT services/software	India	910
12	Deloitte & Touche LLP	Accounting	United States	890
13	Cisco Systems, Inc.	ICT hardware	United States	828
14	Intel Corporation	Semiconductors	United States	828
15	I-Flex Solutions, Inc.	IT services/software	India	817
16	Ernst & Young LLP	Accounting	United States	774
17	Tech Mahindra Americas, Inc.	IT services/software	India	770
18	Motorola, Inc.	ICT hardware	United States	760
19	Mphasis Corporation	IT services/software	India	751
20	Deloitte Consulting LLP	Consulting	United States	665
21	Lancesoft, Inc.	IT services/software	India	645
22	New York City Public Schools	Education	United States	642
23	Accenture LLP	Consulting	United States	637
24	JPMorgan Chase & Co.	Financial services	United States	632
25	Polaris Software Lab India Ltd.	IT services/software	India	611

(table continues next page)

H-1B recipients work on-site with US-based clients for the duration of a given project rather than for the duration of the H-1B visa, makes estimating “true” net employment levels for high-skilled workers highly problematic.

Table 2.3 Top 25 H-1B employers, 2006 (continued)

Grouping	Percent share of total visas	Total number of visas
Total top 25		35,829
Total top 200		77,851
Top 25 share of total top 200	46	
Indian top 25	67	23,904
US top 25	33	11,925
IT services/software top 25	81	29,173
Education top 25	2	642
Financial services top 25	2	632
Other sectors top 25	15	5,382
Total top 26–200		42,022
Top 26–200 share of total top 200	54	77,851
Indian top 26–200	3	1,349
US top 26–200	92	38,838
Other countries top 26–200	4	1,835
IT services/software top 26–200	28	11,966
Education top 26–200	37	15,587
Financial services top 26–200	10	4,210
Other sectors top 26–200	24	10,259

ICT = information and communication technology

Source: Marianne Kolbasuk McGee, "Who Gets H-1B Visas? Check Out This List," *Information Week*, May 17, 2007; author's calculations.

It is obvious from the tables in this chapter that a small number of Indian-based IT services companies are indeed very heavy users of the H-1B and L-1 visa programs and that the existence of these high-skilled visa programs is integral to their business in the United States.³¹ However, it is also clear from table 2.3 that the use of the H-1B program beyond the top 25 users—i.e., among those ranked 26 to 200—was very different during 2006. This group accounts for 54 percent of the total number of H-1B visas in the top 200 (see bottom of table 2.3). Indian IT services/software companies are largely absent from this group. US educational institutions are the biggest individual sector in this group, accounting for more than

31. This fact can be easily verified by looking at the SEC filings of several Indian top 10 companies. Infosys, Wipro, Patni, and Satyam all have 20-F filings available in the EDGAR database on the SEC website, www.sec.gov/edgar. Under the sections concerning risks to forward-looking statements, all these companies list "restrictions on immigration" as a factor that could affect their ability to compete for and service US-based clients, which might hamper companies' growth and adversely affect their revenues.

Table 2.4 Infosys employees on US temporary employment visas, 2003–07

End of company fiscal year	Approximate number of H-1B visa holders	Net change from previous year	Approximate number of L-1 visa holders	Net change from previous year
March 31, 2003	4,090		1,760	
March 31, 2004	3,200	–890	700	–1,060
March 31, 2005	4,350	1,150	700	0
March 31, 2006	6,130	1,780	790	90
March 31, 2007	7,100	970	650	–140

Source: Company Annual 20-F Filings with the Securities and Exchange Commission.

a third (37 percent) of visas granted, with largely non-Indian IT services/software accounting for 28 percent of the visas and financial services and other sectors making up the rest.

The dual India-related nature of the H-1B program found at the aggregate level is thus also explicit at the firm level: A small number of Indian IT services/software companies dominate the program in the top 25, but at the lower tiers, far more numerous US companies in a variety of sectors account for the demand for foreign high-skilled workers. The fact that these two relatively distinct groups of “customers” are using the H-1B high-skilled visa program (likely also the L-1 program) gives rise to a number of policy issues, which will be covered in the next two chapters. It is, however, erroneous to draw policy conclusions concerning the overall use and impact of the H-1B program based exclusively on the characteristics of the most intensive users at the top of table 2.3.

In summary, this chapter illustrated how the green card program for high-skilled workers is overwhelmingly a second step aimed at adjusting the status to permanent residency by already employed high-skilled workers in the United States and that high-skilled Chinese and Indian nationals face significant delays in obtaining their green cards. Second, an India-related dual trend exists in the main temporary high-skilled immigration system comprising the L-1 and H-1B programs: L-1 issuance for Indians is rising rapidly and in 2006 was dominated by a limited number of IT services companies. However, L-1 issuance is stagnant for high-skilled workers from other nationalities and generally spread over a very large number of multinational companies, the vast majority of which requested only fewer than five L-1 visas in FY2006. Detailed data for H-1B issuance show a similar dual trend, with a small number of Indian IT services/software companies among the most intensive users of the H-1B program, ahead of a far more diverse group of US companies.