Harvard Business Review

Hiring

Hiring Data Scientists from Outside the U.S.: A Primer on Visas

by Michael Li, Michael J. Wildes, and Adam W. Moses

September 19, 2016



It's no secret that there's a shortage of data scientists in America's workforce. Many companies look to hire overseas to help ease the domestic talent shortfall (in fact, one in three data scientists are born outside the U.S.) so understanding the ins and outs of visas is rapidly becoming a business necessity. Not all visas are created equal. Some are drastically more expensive, can have lengthy approval processes,

and low approval rates. In a tight labor market, it's imperative that a hiring manager understand the immigration issues that affect who they can hire and how.

At The Data Incubator, we help companies hire data scientists from our big data fellowship. Visa and immigration issues for our non-domestic fellows are one of the most common questions that the companies we work with ask us about. So we've teamed up with Wildes & Weinberg P.C., a leading immigration law firm, to come up with a short primer for employees on technical visas. We compared the six visa categories our data scientist fellows most commonly qualify for (F1-OPT, TN, H1-B, H-1B1, E3, O1) across the six criteria employers care about (eligibility, legal fees, filing fees, quota, length of process, and chances of approval). Here's what we found:

F-1 Visa "Optional Practical Training"

Who's eligible?

Undergraduate and graduate students with F-1 visa status who have completed or have been pursuing their degrees for more than nine months are permitted by the United States Citizenship and Immigration Services (USCIS) to work for one year on a student visa towards getting practical training to complement their education. This year of employment is known as "Optional Practical Training" or "OPT."

Typical legal fees

For the F-1 OPT there are typically no legal fees. Most F-1 students apply for their optional practical training employment cards on their own and without the assistance of an attorney. The international student department of most colleges and universities provide handson instructions for students in navigating the processes.

Approximate filing fees

There is a \$380 fee for filing the initial OPT application for one-year of work authorization. Graduates with STEM degrees can file for a 2-

Comparing Six Common Visa Types

Review the quick details to figure out which is right for your situation.

ТҮРЕ	Who's elibible?	How much are the legal fees?	How much are the filing fees?	Is there a quota?	How long does the process take?	What are the chances of approval?
F-1 OPT Visa (Optional Practical Training)	Undergrad and grad students with F-1 visa status who have completed or have been pursuing their degrees for more than 9 months	No fee	\$380-\$760	No	90 days	Nearly guaranteed
TN Visa	Citizens of Canada and Mexico	\$500- \$5,000	\$50-\$56 generally; \$325 for first-time applicants; \$1,225 for premium processing	No	2 weeks- 4 months	Very high
H1-B Visa	Professionals working in a "specialty occupation"	\$2,000- \$5,000, though lower fees may be available from high- volume firms	\$1,875- \$7,550, paid by employer	Yes	Applications must be filed by April 1 and are reviewed in May or June	Low
H-1B1 Visa	Nationals of Singapore and Chile	\$1,500- \$4,000	\$190	Yes, but it's never been reached before	3-4 weeks	Very high
E-3 Visa	Citizens of Australia	\$1,500- \$4,000	\$205	Yes, but it's never been reached before	3-4 weeks	Very high
O-1 Visa	Individuals who possess extraordinary ability in science, art, education, business, athletics, television, or film	\$3,000- \$20,000	\$325; \$1,225 for premium processing	No	2–6 months	Good

SOURCE MICHAEL LI ET AL., BASED ON INFORMATION FROM U.S. CITIZENSHIP AND IMMIGRATION SERVICES

© HBR.ORG

year extension, which costs another \$380 (most companies pass this cost along to the employee, but not always).

Is there a quota?

There is no quota, all F-1 graduates of degree programs at the bachelor's level and higher are eligible.

How long does the process take from filing?

It takes 90 days from submission of application, or around two to five months from the student's graduation. F-1 visa holders may apply for work authorization in a 150-day window, 60 days before graduation and 90 days after graduation. USCIS, by law, must approve it within 90 days of the application (unless it requires additional information). If the student already has their Employment Authorization Document and is merely switching employers, then it takes one to two weeks.

What are the chances of approval?

Nearly guaranteed.

TN Visa

Who's eligible?

TN visa status is only available to citizens of Canada and Mexico, under the terms of the North American Free Trade Agreement (NAFTA).

Typical legal fees

More than any other visa category, many companies handle TN visas in-house or instruct the employees to do it on their own. Legal fees vary greatly based on complexity of the case and place of filing (the application can either be submitted with USCIS's domestic office or, more commonly, directly to the Consular Officer [for citizens of Mexico] or at the border [for citizens of Canada]). If submitting the application at the border, legal fees range between \$500 and \$2,500. If filing a petition with USCIS, the range is between \$750 and \$5,000, very similar to an H-1B. Factors that would increase the fee may be if the employment opportunity does not neatly fit within one of the TN occupational categories (as is often the case with the management consultant category) or if the employee's degree does not closely match the offered position.

Approximate filing fees

At an airport, the fee is \$50 and \$56 if the person is entering by car at a land border. If this is one's first time filing a petition with USCIS the filing fee is \$325. You can also pay \$1,225 for Premium Processing service, to guarantee review in 15 calendar days rather than the standard one to three months.

Is there a quota?

There is no quota.

How long does the process take from filing?

If applying at the border, the entire case takes two to three weeks, most of which involves preparing the application materials. Once the application is ready, the visa applicant can simply depart the United States and upon reentry submit the application at a U.S. land border, airport, or Pre-Flight Inspection location managed by U.S. Customs and Border Protection. There is no mandatory wait-time outside the country – some Canadians submit their TN applications on the same day of their departures. If applying in the U.S. via change of status or pre-flight inspection notification, then the process takes three to four months under regular processing and three to four weeks with Premium Processing.

What are the chances of approval?

If the position clearly matches one of the TN occupational category and if the employee possesses a degree closely-related to the position, the applicant's chances of approval are very high.

H1-B Visa

Who's eligible?

H-1B visas are issued to professionals working in a "specialty occupation," i.e. a job that requires the theoretical and practical application of a body of specialized knowledge, along with at least a bachelor's degree or its equivalent. Nearly all professional-level jobs in the IT industry will meet this test.

Typical legal fees

Fees typically range between \$2,000 and \$5,000. Some high-volume law firms charge \$500, in large part because they can outsource the work of support staff to India.

Approximate filing fees

There are several fees including a \$325 filing fee, a \$500 Anti-Fraud Fee an Education & Training Fee of \$750 for companies with 25 or fewer employees and \$1,500 for companies with greater than 25 employees, and a \$1,225 Premium Processing fee to guarantee processing in 15 calendar days rather than standard two to three months. If USCIS finds that the visa sponsor is H-1B-dependent, meaning it has a large number of these employees (eight or more in a company of less than 25 employees, 13 or more in a company of 25-50, and 15% of the workforce in a company with more than 50 employees), there is an additional fee of \$4,000. Note that fees *must* be paid by the employer, though certain fees can be deducted from the applicant's salary as long as this does not depress their wages below the minimum required by the Department of Labor.

Is there a quota?

Yes, and it's a problem. The annual H-1B cap is set at 65,000, with an additional 20,000 set aside for graduates of U.S.-based universities at the master's degree level or higher. The 65,000 is reduced by the U.S.-Chile and U.S.-Singapore Free Trade Agreements, which set aside 6,800 H-1B numbers for professionals from those two countries each fiscal year, thus reducing the standard cap to 58,200. Some companies are exempt from the cap, namely nonprofit and government research institutions and those affiliated with institutions of higher learning. Workers are cap-exempt if they held H-1B visa status for at least one day in the previous six years. Thus employers may on-board H-1B employees relatively quickly if the applicant already holds H-1B visa status, but only for the remainder of the six-year H-1B time (unless they immediately file for green card certification by the 5th year anniversary).

The quota is currently exhausted. In the 2017 fiscal year, USCIS received approximately 236,000 petitions, up from 230,000 in the previous year.

How long does the process take from filing?

For cases that are subject to the cap, applications must be filed within five business days of April 1st. Cases filed under Premium Processing (for the additional \$1,225 filing fee) are reviewed by May; standard cases are reviewed in May and June. Employees may start their H-1B employment 10 days prior to October 1st. If employees hold a valid F-1 OPT work authorization on April, and they are selected for a subsequently approved H-1B petition, work authorization automatically extends to October 1st.

What are the chances of approval?

The chances for overall success for a "new" H-1B are low, given the quota and the increased scrutiny around the definition of "specialty occupation" (see below). A purely statistical analysis shows that chances for selection in the H-1B cap lottery are approximately 25-33% (65,000 standard / 20,000 master's cap, out of 250,000 applications). Most reputable firms and practitioners report, anecdotally, that around 50% of cases have been selected in previous years. Once selected, USCIS must still approve the application.

Remember also that H-1B visas are limited only to "specialty occupations." Until recently, all positions which reasonably could be shown to require a bachelor's degree were considered H-1B eligible. But in recent years the USCIS has heavily securitized positions that do not require narrowly tailored degree programs. Under this analysis, positions in IT, engineering, accounting, and the sciences are sufficiently "specialized" under H-1B rules. In contrast, positions in business, marketing, public relations, and some artistic fields received heavy scrutiny, which leads to higher levels of denial. This is particularly true for small businesses, where the government often makes arbitrary determinations that these types of companies do not need specialized positions since "most" similarly situated companies outsource these types of jobs.

H-1B1 Visa

Who is eligible?

The H-1B1 visa (and associated H-1B1 status) is a variant of the H-1B visa for nationals of Singapore and Chile.

Typical legal fees

Fees range between \$1,500 and \$4,000, depending on complexity of the case.

Approximate filing fees

Fee of \$190 paid directly at the U.S. consulate abroad.

Is there a quota?

Legally, the quota is 6,800 per fiscal year, taken from the 65,000 standard cap limit. But in practice, the 6,800 quota has never been reached.

How long does the process take from filing?

If filing a new or renewal application directly at the consulate, the process takes three to four weeks.

What are the chances of approval?

If the application is submitted at the consulate rather than with USCIS in the United States, the chances are very high. To explain, H-1B1 petitions filed domestically with USCIS, for instance when changing employers, receive heightened scrutiny around the "specialty occupation" issue, just like for standard H-1B petition. As such, USCIS will find certain roles in business, management, public relations, marketing, etc., to not be sufficiently specialized to qualify as a "specialty occupation." However, the consulates tend to take a very relaxed approach, and often rubberstamp all applications where the applicant possesses a bachelor's degree or three years of work experience, which is seen as equivalent to a bachelor's degree.

E-3 Visa

Who's eligible?

Only citizens of Australia are eligible for the E-3 visa.

Typical legal fees

Fees range between \$1,500 and \$4,000, depending on the complexity of the case.

Approximate filing fees

Fee of \$205 paid directly at the U.S. consulate abroad.

Is there a quota?

Legally there is a maximum of 10,500 visas available annually in the E-3 visa classification, but it has never been reached.

How long does the process take from filing?

If filing a new or renewal application directly at the consulate, the process takes three to four weeks.

What are the chances of approval?

If the application is submitted at the consulate rather than with USCIS in the United States, very high. E-3 petitions filed domestically with USCIS, for instance when changing employers, receive heightened scrutiny around the "specialty occupation" issue, just like for standard H-1B and H-1B1 petition.

O-1 Visa

Who's eligible?

The O-1 nonimmigrant visa is for the individual who possesses extraordinary ability in the sciences, arts, education, business, or athletics, or who has a demonstrated record of extraordinary achievement in the motion picture or television industry and has been recognized nationally or internationally for those achievements.

Typical legal fees

Fees range between \$3,000 and \$20,000. Some firms exclusively practice O-1 visa preparation and charge exorbitant rates.

Approximate filing fees

There is a \$325 filing fee and a \$1,225 Premium Processing fee to guarantee review by USCIS in 15 calendar days. (Some O-1 visa holders, mainly those working in film, television and "the arts," must also provide an advisory opinion from the job's associated labor union)

Is there a quota?

There is no quota for the O-1 visa.

How long does the process take from filing?

If done through Premium Processing it takes two to three months. Standard processing takes four to six months. Since the petition generally requires extensive research and letter writing, thus it's advisable to allow for eight weeks of preparation time.

What are the chances of approval?

Provided that the applicant meets the regulatory definition of extraordinary ability, the chances of approval are good. For applicants in IT, business, or science (known as "O-1A"), the regulations focus on whether the applicant has published, received awards, or other recognition; judged the work of others; and played important roles for prestigious organizations. Generally speaking, most applicants with a PhD are within the ballpark of an O-1. Similarly, applicants with significant work experience abroad with reputable institutions, and who have finished a graduate program in the U.S. generally also make good candidates. For applicants in "the arts" (known as "O-1B"), the standard is even lower, requiring merely receipt of a prestigious nomination, or alternatively a handful of articles about the applicant's work in nationally-circulated newspapers. It bears mentioning that the arts is defined broadly to encompass all creative endeavors, to include several occupations in the business realm such as graphic design, advertising, and marketing. Foreign professionals working in these areas, and who possess any degree of appreciable success, should have no problem getting an O-1B given its extremely low bar for approval. Run-of-the-mill college graduates who don't meet the criteria have close to zero chance of success.

Immigration law can be complex and dry — and obviously, an employer should still consult a lawyer before taking any course of action — but having a better understanding of the visa classes can help employers find great foreign talent with relatively few immigration headaches.

Michael Li is the founder and CEO of The Data Incubator, a data science training and placement firm, which was acquired by Pragmatic Institute, where he is president. A data scientist, he has worked at Google, Foursquare, and Andreessen Horowitz. He is a regular contributor to VentureBeat, The Next Web, and *Harvard Business Review*. He earned a master's degree from Cambridge and a PhD from Princeton.

MW

Michael J. Wildes, Esq. is a managing partner of Wildes & Weinberg P.C., a New York City law firm focused on U.S. immigration for businesses and families.

AM

Adam W. Moses, Esq. is an associate attorney at Wildes & Weinberg P.C., a New York City law firm focused on U.S. immigration for businesses and families.