RESEARCH ARTICLE

▲ International Recruitment of Allied Health Professionals to the United States

Piecing Together the Picture with Imperfect Data

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BACKGROUND: Research on the international recruitment of health professionals to the U.S. has focused almost exclusively on physicians and nurses; we are aware of no research on the migration of allied health professionals. OBJECTIVE: We examined the strengths and weaknesses of various public and private data sources on foreign-educated allied health professions in the U.S. and patched together a picture of these migrants. We focus on pharmacists, physical therapists (PTs), occupational therapists (OTs), speech language pathologists (SLPs), and medical and clinical laboratory technicians (lab techs). FINDINGS: Based on the American Community Survey, we found that 12% of PTs, 12% of lab techs, 8% of pharmacists, 4% of OTs, and 3% of SLPs are foreign-born and entered the U.S. at age 21 or older. Among foreign-born PTs, about half remain as non-citizens, suggesting the highest proportion of recent arrivals among the five professions. CONCLUSIONS: As Congress debates comprehensive immigration reform, one of the much need changes to the system is better immigration data, disaggregated by occupation. J Allied Health 2014; 43(2):79–87.

The Supply and Demand of Allied Health Professionals

The primary driver of international recruitment of health care professionals to the U.S. has been the increased demand for health care due to an aging and a sicker population. Demand is expected to continue to rise as insurance expands under the Affordable Care Act, which aims to increase coverage to 32 million people in 2014.

The supply of health professionals does not appear to be keeping up with the rising demand for health care. Among the five allied health professions that are the focus of this paper, the stock has remained relatively steady over the last several years, with a slight uptick in pharmacists and PTs (data not shown). Job growth for these occupations, however, is accelerating. From 2010 to 2020, the projected rate of change in employment for PTs (39%), OTs (33%), pharmacists (25%), and SLPs (23%)...
is expected to be much faster than the national average of 14% (Fig. 1). Over the same time period, the projected rate for lab techs is lower, at an expected 13%.\textsuperscript{10}

One indicator of a worker shortage is a low unemployment rate, with 4% unemployment often cited by economists as the “natural” rate of unemployment.\textsuperscript{9,11} Unemployment for these allied health professions is well below the national average at an average 1.1% among the five professions in 2012.\textsuperscript{12}

The Immigration Process

Although allied health professionals are currently able to migrate to the U.S. more easily than nurses, who are facing a visa (EB3) backlog, the process of obtaining visas, interacting with international labor recruiters, and meeting the credentialing and licensure requirements is complex and costly.

VISA TYPES USED BY ALLIED HEALTH PROFESSIONALS

Allied health professionals use guest worker programs like H-1B and Trade North American Free Trade Agreement (TN) status, as well as greencards such as EB-2 and EB-3, to enter the U.S. (see Appendix A for a description of immigration visas). Because of the administrative backlog in processing requests and because the country caps on permanent EB-2 and EB-3 immigration visas are quickly filled in major sending nations, greencards can take up to 6 or 7 years to obtain. Most allied health professionals therefore enter using the H-1B non-immigrant visa and are subsequently sponsored for an adjustment of status to the greencard while in the U.S. H-1B visas are used for jobs that require a baccalaureate degree or higher and have a duration of 3 years with one renewal for a total of 6 years.\textsuperscript{13}

H-1B visas are also subject to a cap, in this case across all sending countries, with exemptions for not-for-profit institutions of higher education and foundations. Allied health professionals, therefore, compete for these slots with other high-skilled professions such as IT techs. The current limit is 65,000 visas per year, with an additional 20,000 available for those seeking positions that require advanced degrees. Generally, the cap is filled within days of the opening of the annual application process.\textsuperscript{14} Once the cap is filled, H-1B applications are processed in an order determined by lottery.

As part of an effort to ensure that the H-1B program does not negatively affect the U.S.-born workforce, any potential H-1B employer must supply the Department of Labor with a Labor Condition Application (LCA), which states that the employer agrees to pay (an employer-defined and justified estimation of) prevailing wages and that they are not utilizing H-1B labor in order to break a strike.\textsuperscript{15} Canadian and Mexican citizens may enter using the TN status. This is a guest worker program specific to the North American Free Trade Agreement (NAFTA) countries for certain high-skilled occupations. TN status is also for 3 years, but unlike the H-1B, TN status is not dual intent. It can, however, be renewed indefinitely and there are no limits on the number that may be issued.

INTERNATIONAL LABOR RECRUITERS

International labor recruiters facilitate the migration of allied health professions to the U.S. In 2007, when visas

\begin{figure}[h]
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\end{figure}
for nurses became difficult to obtain due to the EB3 retrogression,* many recruitment companies turned to recruiting allied health professionals, in particular PTs. According to the Alliance for Ethical International Recruitment Practices (Alliance), in 2007, there were 273 active U.S.-based international recruitment companies, of which only 17 (6.2%) indicated on their website that they recruited allied health professionals.1 By 2012, the number of companies active in international recruitment had declined to 97, of which 40 (41%) were recruiting allied health professionals (Alliance, personal communication, Mar 11, 2013).

Although some large employers recruit directly, most recruitment is conducted either by placement companies that charge a fee per professional recruited or staffing agencies that recruit directly or through a placement agency.1 Increasingly, it is the staffing agencies that dominate the industry and they are a far more lucrative model. Contracts in either case generally require professionals to commit to 3 years and include high penalty fees to prevent migrants from switching employers.

### CREDENTIALING AND LICENSURE

Section 343 of the Illegal Immigration Reform and Immigrant Responsibility Act requires that PTs, OTs, SLPs, lab techs, medical techs (as well as nurses, audiologists, and physician assistants) who seek to practice in the U.S. have their credentials certified by a federally designated authority.15 In 1977, CGFNS International (formerly Commission on Graduates of Foreign Nursing Schools) was established to provide a VisaScreen® certificate for the eight health professions in Section 343. PTs and OTs may also use their own professional

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* Visa retrogression occurs when the number of visa applicants in a specific category or country is greater than the number of visas available for that month, a limit that is set by Congress each year. This creates a backlog of applicants and longer wait times (up to 10 years for India).
bodies. Pharmacists are not included in Section 343. Table 1 provides a summary of credentialing and licensing requirements for each health profession.

Data Sources for Foreign-Born and Foreign-Educated Allied Health Professionals

Data on the migration of allied health professionals to the U.S. are notoriously scarce. For physicians, the Educational Commission for Foreign Medical Graduates (ECFMG) annually tracks international medical graduates who enter the U.S. For nurses, the National Sample Survey of Registered Nurses provided a snapshot every 4 years through 2008. No central data source exists for the allied health professions, however. In this section, we review a variety of proxy data sources and discuss their strengths and weaknesses, including Census data, licensure and credentialing data, and three types of data derived from the immigration process.

AMERICAN COMMUNITY SURVEY

Surveys conducted by the Census Bureau are one source of data on immigration, although they record only country of birth, not the more appropriate variable of country of education. The Current Population Survey (CPS) has been used to analyze immigration for a large profession like nursing. However, CPS suffers from sample sizes that are too small for allied health professions. As a result, we explored the use of the American Community Survey (ACS).

To best capture foreign-born individuals who migrated (and were potentially recruited) to the U.S. for work, we looked at the total number of people in each allied health profession in the health care industry in 2011 who immigrated at the age of 21 or older (Fig. 2). We excluded individuals born to a U.S. citizen. These migrants either remained as a non-citizen at the time of the survey or naturalized as a citizen. The category of non-citizens implies that they are the most recent immigrants, probably having arrived within the last 10 years.\

We found that 12% of PTs, 12% of lab techs, 8% of pharmacists, 4% of OTs, and 3% of SLPs are foreign-born and entered the U.S. at age 21 or older. Among foreign-born PTs, about half remain in the non-citizen category, suggesting the highest proportion of recent arrivals among the five professions. In absolute numbers, however, lab techs have the most non-naturalized (13,484) members, followed by PTs (12,220) and pharmacists (1,728).

Figure 3 displays the most recent data on foreign-born professionals over a 4-year period. Consistent with the changes in the practices of international recruiters reported by the Alliance for Ethical International Recruitment Practices, we see a sharp increase in foreign-born PTs after 2010, suggesting that the difficulties in obtaining visas for nurses may have played a role in increasing the recruitment of PTs.

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†Immigrants must have a permanent residency visa for at least 5 years before applying for naturalization.
‡Among pharmacists working outside the health care industry, the share of foreign-born and entered the U.S. at 21 or older was 12% in 2011, but the rates were nearly identical for pharmacists in and out of health care at 10.5% in 2010.
Given the limitations of sample surveys and the possibility that some foreign-born professionals were actually educated in the U.S., we also explored other potential data sources.

**Licensure Data**

Licensure data for allied health professions are extremely weak and not useful at this time for the purposes of this analysis.

- There are currently only 12 states with licensure for lab techs.
- The American Speech-Language-Hearing Association (ASHA) does not collect licensure data for SLPs. They do have data on the number of ASHA-certified SLPs, which, according to a 2012 internal analysis, is a 100% overlap with state-licensed SLPs. Unfortunately, ASHA does not register country of education, nor do the data distinguish between new versus renewed licensed SLPs (Sarah Slater, ASHA, personal communication, March 7, 2013).
- The National Association of Boards of Pharmacy (NABP) collects the total number of licensed pharmacists in the U.S., DC, Guam, Puerto Rico, and U.S. Virgin Islands, but it does not show newly licensed by year (Lisa Braddy, NABP, personal communication, Mar 6, 2013).
- The American Occupational Therapy Association (ACTA) collects licensure data for OTs, but their data do not differentiate between new and renewed licenses, nor do they indicate foreign-educated as a variable (Chuck Willmarth, ACTA, personal communication, Feb 28, 2013).
- The Federation of State Boards of Physical Therapy (FSBPT) collects pass rates as a percentage for first-time candidates for the National Physical Therapy Examination. This data are collected for graduates of U.S.-accredited and non-U.S. PT programs. Their website does not provide the actual number of candidates in each category.  

**Credentialing Data**

Credentialing data provide some additional information on migration. Aggregating data from the VisaScreen® certificates issued by CGFNS International, the FCCPT, and the National Board for Certification in Occupational Therapy (NBCOT), we show the trends in the number of credential certificates issued to PTs, OTs, SLPs, and lab techs between 2005 and 2010 (Fig. 4).

Trends in the credentialing of foreign-educated allied health professionals suggest that the five professions examined largely rise and fall together, but that these fluctuations do not necessarily mirror changes in the U.S. economy. While there was an abrupt rise in PT credentialing in 2006, credentialing fell between 2006 and 2008. Since the start of the recession in 2008, there has been a slow increase in the number of foreign-educated allied health professionals obtaining U.S. credentials. As previously suggested, it is possible that this increase reflects international labor recruiters’ increased interest in allied health professionals, when EB3 visas for nurses were no longer easily available, rather than a “real” demand linked to shortages in the U.S.

There are several limitations of these data. First, certification reveals intent to migrate, rather than a measure of whether the person actually was able to obtain a visa and enter the U.S. Second, certification data are proprietary and therefore subject to the credentialing associations’ willingness to provide it. CGFNS, which provides the VisaScreen®, for example, stopped providing public access to its data in 2011. Data from the FCCPT, NBCOT, and FPGEC were provided to us upon request, but are not publicly available. Finally, for those professions that have multiple credentialing avenues, it is possible that there is some duplication—
i.e., an individual has credentials reviewed by both bodies. Given the cost of credentialing, however, it is unlikely that many migrants would seek both.

**Immigration Data**

The U.S. Customs and Immigration Services do not systematically disaggregate visa data by specific profession. As discussed above, most allied health professionals are recruited with an H-1B visa. The H-1B visa data available to the public differentiate physicians and surgeons (about 8,000/year), from the rest of the health professions, which in turn are divided into two groups: therapists (presumably occupational and physical) and “not elsewhere classified” (NEC). Since for the most part RNs do not qualify for H-1Bs, it is reasonable to assume that pharmacists, SLPs, and lab techs comprise most of NEC. Table 2 presents the total H-1B visas issued to these two groups between 2007 and 2011.

**Labor Condition Application Data**

Labor Condition Applications (LCA) are filed by U.S. employers interested in recruiting workers from abroad under the H-1B program and is publicly available on the Department of Labor website. The LCA has been used as a measure of employer intent to recruit from abroad. Among the limitations of this data source is the fact that employers with multiple worksites may file several LCAs per worker, such that LCAs filed may overcount the number of foreign-educated professionals being recruited (Brian Zuccaro, personal communication, Jan 28, 2013; Mike Hammond, personal communication, Dec 12, 2012). In addition, immigration attorneys suggest that not all filed LCAs are utilized; some may be abandoned before a foreign worker obtains their H-1B visa. They say that in the past some companies filed an LCA for many “workers” so that they would be ready in the event they had to hire quickly. However, this is no longer necessary since LCAs are now completed in about 7 days (Brian Zaccaro, personal communication, Dec 12, 2012). Thus, the overcount may be slightly less now than it was a few years ago.

Despite these limitations, the trends over time are a useful point of reference with regard to the employer demand side. Table 3 shows the total number of LCA applications for allied health professions that were certified (approved) by the Department of Labor between

**Table 2. Initial Employment H-1B Petitions Approved by Occupation, FY 2007–2011**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupations in medicine and health, NEC*</td>
<td>1,537</td>
<td>1,634</td>
<td>2,140</td>
<td>1,718</td>
<td>1,603</td>
</tr>
<tr>
<td>Therapists</td>
<td>NA</td>
<td>1,093</td>
<td>1,485</td>
<td>925</td>
<td>869</td>
</tr>
</tbody>
</table>

2008 and 2011. There were a total of 32,739 workers listed on the certified LCAs for allied health professionals. In Table 3, we see the upward trend in credentialing between 2008 and 2010 reflected in employer demand as well, although the demand declines in 2011.

PERM DATA

A permanent labor certification (PERM) issued by the Department of Labor allows an employer to hire a foreign worker to work permanently (green card) in the U.S. PERM applications can be filed when a worker is still in their home country or when they are in the U.S. with a non-immigrant visa with dual intent, e.g., H-1B. Most PERMs, however, are filed under the latter situation (Mike Hammond, personal communication, Nov 12, 2012). PERM applications therefore constitute a measure of employers’ interest in retaining foreign-educated allied health professionals, as well as a proxy for the volume of migrants who have entered the U.S. over the course of several years.

PERM regulations state that an employer can legally file multiple applications for the same foreign worker if there are multiple job openings, on the grounds that the additional jobs cannot be filled by available U.S. workers. Thus, the number of PERM applications may also be an overcount. There could also be duplicate PERM applications when people change employers or when EB-3 applicants decide to “upgrade” to an EB-2, in order to shorten waiting time (Mike Hammond, personal communication, Dec 11, 2012).

Table 4 reports the PERM data for the five allied health professions included in this study. Paralleling the credentialing and LCA data, we observe a sharp increase in the number of PERM applications submitted between 2009 and 2010, with a slight decline in 2011. Like nurses, PTs are not required to submit a PERM application with the Department of Labor because they are a “Schedule A” occupation. Schedule A is a U.S. Department of Labor precertification, which establishes that workers in certain job classifications will not adversely affect the wages and working conditions of U.S. workers similarly employed.

Conclusion

As the shortage of U.S.-educated allied health professionals grows over the next decade, international recruitment is likely to increase. This paper is the first to provide a comprehensive overview of the data sources available to track the migration of allied health professionals to the U.S.

Quantifying the number of foreign-educated allied health professionals is difficult as there is no systematic or national collection of data. The American Community Survey (ACS) provides important background information on the numbers of migrants in the U.S., but it does not indicate country of education. Licensure data would be an ideal data source, and it is unfortunate that the allied health professionals’ licensure bodies do not make their data available by year and by country of origin. Credentialing data viewed over time are a useful proxy for the level of interest in migrating, but also have severe limitations because of their proprietary nature and the lack of coordination among credentialing bodies. H-1B data on visas are not disaggre-

<table>
<thead>
<tr>
<th>Profession</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical and clinical laboratory technologists</td>
<td>1</td>
<td>30</td>
<td>381</td>
<td>246</td>
</tr>
<tr>
<td>Occupational therapists</td>
<td>22</td>
<td>12</td>
<td>219</td>
<td>255</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>36</td>
<td>59</td>
<td>628</td>
<td>340</td>
</tr>
<tr>
<td>Speech-language pathologists</td>
<td>11</td>
<td>3</td>
<td>130</td>
<td>109</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>70</td>
<td>105</td>
<td>1,369</td>
<td>962</td>
</tr>
</tbody>
</table>

gated by health profession. LCA data are an imperfect data source for the level of demand for these professionals by employers. Lastly, PERM data reflect employers’ interest in retaining foreign-educated allied health professionals by applying for permanent visas on their behalf.

Despite the limitations of each data source, when examined over time, it is possible to piece together a picture of what has been happening. We find an increase in migration activity beginning in 2008 for four of the five professions. While the demand for foreign-educated nurses dropped during this period, the demand for foreign-educated allied health professionals is consistent with the general health care workforce trends that show an increase in jobs even during the Great Recession. Post-recession, the number of foreign-educated allied health professions appears to be decreasing slightly. One possible explanation for this is the reduced availability of H-1B visas each year since 2010. In 2013, for example, the cap was reached within 1 week. This is likely because as the economy recovers, other industries, such as IT, are competing for these visas.

Improving the quality of data on the international migration of allied health professionals is important for several reasons. First, if reliable data were available, a surge in international recruitment would be a signal to workforce planners that they need to address domestic shortages through additional investments in education or geographic redistribution programs. If, on the other hand, the data show that international recruitment is increasing during periods in which there are no shortages, it would be an important signal that the something is amiss in the immigration system. It could essentially mean that either 1) the labor certification process, which is supposed to ensure that U.S. citizens have been offered these jobs first, is not functioning as intended or 2) the prevailing wage laws are being gamed and foreign-educated professionals are being paid less than their American counterparts.

Better migration data is also important in order to ensure the protection of professionals being recruited to work in the U.S. An increase in recruitment should signal to both state and non-state actors that they need to be vigilant in their oversight of the international recruitment industry. Past periods of high international recruitment of nurses, for example, have been plagued by unethical international recruiters that take advantage of foreigners eager to make a better life for themselves in the U.S. In the case of the H-1B visa, this is the responsibility of the Department of Labor, although nongovernmental certification efforts, such as the Alliance for Ethical International Recruitment Practices, can play an important complementary role. In addition, to the extent that H-1B or other guest worker programs continue to be used, professional associations and worker rights advocates will want to track what happens to these individuals: do they stay in they stay in the U.S. or do they return home?

As Congress debates comprehensive immigration reform, part of the change needs to be more and better data on international labor recruitment. As the fastest growing job sector in the U.S., the healthcare industry is likely to continue to be reliant on foreign health professionals for some portion of the workforce. Opponents and proponents of international recruitment alike should agree that, at the very least, we need to understand who is being recruited, under what conditions, and to what kinds of settings.

REFERENCES


## Appendix A. Description of Immigration Visas Used by Allied Health Professionals

<table>
<thead>
<tr>
<th>Visa Type</th>
<th>Eligibility</th>
<th>General Requirements</th>
</tr>
</thead>
</table>
| EB-2      | Must be a member of the professions holding an advanced degree or its equivalent, or a foreign national who has exceptional ability. | Advanced degree  
- Job you apply for must require an advanced degree and you must possess such a degree or its equivalent (a baccalaureate degree plus 5 years progressive work experience in the field).  
Exceptional ability  
- Show exceptional ability in the sciences, arts, or business. Exceptional ability means “a degree of expertise significantly above that ordinarily encountered in the sciences, arts, or business.”  
National interest waiver (NIV)  
- NIVs are usually granted to those who have exceptional ability (see above) and whose employment in the U.S. would greatly benefit the nation. Those seeking an NIV waiver may self-petition (they do not need an employer to sponsor them). |
| EB-3      | Must be a skilled worker, professional, or other worker. | Skilled workers  
- Demonstrate at least 2 years of job experience or training.  
- Perform work for which qualified workers are not available in the U.S. Professionals  
- Demonstrate that you possess a U.S. baccalaureate degree or foreign degree equivalent, and that a baccalaureate degree is the normal requirement for entry into the occupation.  
- Performing work for which qualified workers are not available in the U.S.  
- Education and experience may not be substituted for a baccalaureate degree.  
Other workers  
- You must be capable, at the time the petition is filed on your behalf, of performing unskilled labor (requiring <2 years training or experience), that is not of a temporary or seasonal nature, for which qualified workers are not available in the U.S. |
| H-1B      | Applies to people who wish to perform services in a specialty occupation.* | You must meet one of the following criteria:  
- Completed a U.S. bachelor’s or higher degree required by the specific specialty occupation from an accredited college or university.  
- Hold a foreign degree that is the equivalent to a U.S. bachelor’s or higher degree in the specialty occupation.  
- Hold an unrestricted state license, registration, or certification that authorizes you to fully practice the specialty occupation and be engaged in that specialty in the state of intended employment.  
- Have education, training, or progressively responsible experience in the specialty that is equivalent to the completion of such a degree, and have recognition of expertise in the specialty through progressively responsible positions directly related to the specialty. |
| TN        | Permits qualified Canadian and Mexican citizens to seek temporary entry into the U.S. to engage in business activities at a professional level. | You may be eligible for TN nonimmigrant status, if:  
- You are a citizen of Canada or Mexico.  
- Your profession qualifies under the regulations.  
- The position in the U.S. requires a NAFTA professional.  
- You have a prearranged full-time or part-time job with a U.S. employer (but not self-employment, see documentation required below).  
- You have the qualifications to practice in the profession in question. |

*The job must meet one of the following criteria to qualify as a specialty occupation:  
1. Bachelor’s or higher degree or its equivalent is normally the minimum entry requirement for the position.  
2. The degree requirement for the job is common to the industry or the job is so complex or unique that it can be performed only by an individual with a degree.  
3. The employer normally requires a degree or its equivalent for the position.  
4. The nature of the specific duties is so specialized and complex that the knowledge required to perform the duties is usually associated with the attainment of a bachelor’s or higher degree.  