



UNEVEN PROGRESS

THE EMPLOYMENT PATHWAYS OF SKILLED IMMIGRANTS IN THE UNITED STATES

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EXECUTIVE SUMMARY

More than 1.3 million college-educated immigrants are unemployed or working in unskilled jobs such as dishwashers, security guards, and taxi drivers—representing one of every five highly skilled immigrants in the US labor force. Their work in these jobs constitutes a serious waste of human capital¹—one that can be addressed by both immigrant admission and immigrant integration policies.

Though often overlooked amid controversies over the flow of unauthorized, largely low-skilled immigrants, legal immigration channels have produced a steady flow of newcomers with substantial levels of education. As of 2006 there were more than 6.1 million immigrants 25 or older with a bachelor's or higher degree, representing 15.2 percent of all college-educated persons in the US civilian labor force. We estimate that more than half (53.4 percent) of these highly skilled immigrants² obtained their education prior to migration, so that the United States benefits from schooling they received and that was paid for elsewhere. The great majority of these immigrants eventually do well here. Yet many experience considerable difficulty securing well-paying positions that use their credentials. Some never achieve employment commensurate to their qualifications.

Numerous studies have shown that highly skilled immigrants contribute to the economy through innovation and entrepreneurship.³ In addition, research shows they produce a surplus for public coffers by paying more in taxes than they take out in services.⁴ Thus, the brain waste documented in this report represents unrealized returns not only to these immigrants and their families but also to the nation as a whole. In an economic environment in which human capital drives productivity and development, strategies to maximize the available human capital deserve the close attention of federal, state, and local policymakers.

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1. We use the terms “waste of human capital,” “brain waste,” “skill waste,” and “skill underutilization” interchangeably.
 2. In this paper, we define “highly skilled” immigrants as immigrant adults who have at least a bachelor's degree. We use the terms “highly skilled,” “skilled,” and “college-educated” interchangeably.
 3. Neeraj Kaushal and Michael Fix, *The Contributions of High-Skilled Immigrants* (Washington, DC: Migration Policy Institute, 2006), http://www.migrationpolicy.org/ITFIAF/TF16_Kaushal.pdf; Vivek Wadhwa, Annalee Saxenian, Ben Rissing, and Gary Gereffi, “Skilled Immigration and Economic Growth,” *Applied Research in Economic Development* 5, no. 1 (2008): 6–14, <http://ssrn.com/abstract=1141190>; Rachel Friedberg, “The Economic Impact of Knowledge Workers from India and China,” in *Movement of Global Talent: The Impact of High Skill Labor Flows from India and China*, ed. Udai Tambar (Princeton, NJ: Policy Research Institute for the Region, 2007).
 4. James Smith and Barry Edmonston, *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration* (Washington, DC: National Academies Press, 1997).

In order to measure the scope of the challenge, we examined data from two major sources, the American Community Survey (ACS) and the New Immigrant Survey (NIS). The data enabled us to develop a portrait of the highly skilled immigrants whose skills are underutilized in the US labor market. We also discuss policies and proposals developed both here and abroad that might guide reform in the US context.

Key Findings

Adjusting to a new labor market is not an easy task. Many highly skilled immigrants experience a sharp drop in occupational status when they migrate. How quickly they recover and how far they get depends on a variety of factors:

- *Knowing English:* High-skilled immigrants who were limited English proficient were twice as likely to work in unskilled jobs that those who were proficient.
- *Having a US degree:* Legal permanent residents with US college degrees were three times more likely to work in high-skilled jobs than those with a foreign degree.
- *Working in the United States prior to permanent settlement:* Immigrant status adjusters (i.e., immigrants who receive their permanent residency after spending some time in the United States on temporary nonimmigrant visas) fared especially well.
- *Entering under employment visa categories:* According to the NIS data on legal permanent residents, high-skilled immigrants admitted under employment visas held higher quality jobs in the US labor market than immigrants in other admission categories, such as family, refugee, and diversity. However, the period of observation is fairly limited; successive waves of NIS data will be needed to firmly establish whether these trends persist over time.
- *Coming from Europe or Asia:* Highly skilled European and Asian immigrants' rates of underutilization approximated those of natives; Latin Americans fared worse. About 44 percent of recent immigrants and 35 percent of long-term immigrants from Latin America were working in unskilled jobs in 2005–2006. African-born skilled immigrants also found themselves at a disadvantage, having the highest unemployment rates of all foreign-born groups.
- *Having undocumented status:* Skilled Latin Americans' comparatively poor labor-market outcomes in both ACS and NIS—the latter surveys only legal permanent residents—suggest that legal status only partially explains skill underutilization of this group.

Policy Implications

Integration Policy. Much of the legal and institutional authority for recognizing and validating education and professional credentials has been devolved to state and local governments and to private professional associations. Policy responses at the state level could include state workforce agency partnerships with other stakeholders (state oversight boards, professional associations, universities, employers, foundations, and community-based organizations);

mentorship and internship programs; and accredited work-skills training and English language programs. At the national level, responses could focus on providing incentives to create effective bridging programs in federal training grants, developing model codes, and disseminating best practices.

Our results make clear that English language proficiency is critical to obtaining jobs commensurate with immigrants' competencies. In particular, high-quality instruction that deploys anytime-anywhere learning and that places greater emphasis on immigrants' English needs in the context of work is needed.

Immigration Policy. The strong labor-market outcomes of legal immigrant status adjusters relative to newly admitted immigrants strengthen the case for creating visa classes that allow their holders to transition from temporary to permanent status. Such transitional visas would enable US employers to recruit certain foreign workers with the option of future employer- or self-sponsorship for permanent immigration. Another proactive step in reducing potential brain waste might be setting up an independent agency that would make recommendations to the government for adjusting admission levels in various work-related streams. The agency's recommendations would need to be based on ongoing analyses of local and regional labor markets, focusing on needs, trends, worker supply chains (including internal migration), and assessments of the impact of the most recent immigration flows.

Future Research Agenda

A multipronged research agenda that emerges from this exploratory study would include

- estimating costs to the nation, states, and to immigrants themselves of long spells of working in low-skilled jobs. The results could spur further public and private investments in the areas of credentialing, English language training, and workforce development;
- determining the role and specifying the degree of discrimination (e.g., national origin, accent, race) directed against highly skilled immigrant job applicants;
- probing more deeply the sources of Latin American immigrants' persisting underemployment;
- identifying and estimating the cumulative costs of brain waste in the destination country and brain drain in the origin country.

CHAPTER I

COLLEGE-EDUCATED IMMIGRANTS AND SKILL WASTE: INTRODUCTION

The Issue

The conventional wisdom suggests that highly skilled immigrants—defined here as persons with at least a bachelor’s degree⁵—enjoy abundant opportunities for economic success in the United States. And, indeed, most do very well. As a result, their labor-market outcomes have rarely been the target of policy concerns. However, a significant minority fails to realize its full potential. Portrayed in occasional media stories, these are the immigrant engineers and doctors driving cabs, working as parking attendants, or working in paraprofessional jobs who seem to face numerous obstacles to success in US labor markets.

Why should we care about the fates of highly educated immigrants who end up unemployed or underemployed in low-skilled jobs? There are at least three reasons for making this “brain waste” a policy priority. One is to address the loss in worker productivity that skill underutilization represents to the national economy and the well-being of immigrant workers and their families.⁶ Another imperative is the nation’s need to *attract* and *integrate* skilled immigrants in the context of stiffening global competition for talent.⁷ The European Union’s proposed Blue Card for highly skilled foreigners and the constantly refined points systems in the United Kingdom, Australia, Canada, New Zealand, and Hong Kong are just two

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5. There is no consistent definition of the highly skilled in the research or policy literature. One of the commonly used definitions is “education-based,” which we adopt here. For a review of conceptual and data issues related to defining the highly skilled, see Jeanne Batalova, *Skilled Immigrant and Native Workers: The Economic Competition Debate and Beyond* (New York: LFB Scholarly Publishing, 2006), chapter 3.
 6. Jeffrey Reitz, “Tapping Immigrants’ Skills: New Directions for Canadian Immigration Policy in the Knowledge Economy,” *IRPP Choices* 11, no. 1 (2005). However, as research on overeducation shows, employers often desire a mismatch between workers’ skills and job requirements because hiring overqualified workers reduces training costs and increases the pool for future promotion. See Joni Hersch, “Optimal Mismatch and Promotions,” *Economic Inquiry* 33, no. 4 (1995): 611–624.
 7. Demetrios Papademetriou, Will Somerville, Jeanne Batalova, and Hiroyuki Tanaka, *Points Systems: The Next Generation of Economic Migration Selection* (Washington, DC: Migration Policy Institute, forthcoming); National Science Board, *Science and Engineering Indicators 2008*, (Arlington, VA: National Science Foundation), chapter 3, <http://www.nsf.gov/statistics/seind08/pdf/c03.pdf>; Ayelet Shachar, “The Race for Talent: Highly Skilled Migrants and Competitive Immigration Regimes,” *New York University Law Review* 81(2006).

examples of other countries making highly skilled migration an essential component of national economic development and competitiveness.⁸ Finally, marginalized highly skilled immigrants may embody not just the issue of brain waste in the country of destination: Their departure from developing countries could represent its corollary, a particularly severe form of brain drain in which the underemployment of highly educated nationals undercuts potentially offsetting factors, such as remittances or the circulation of knowledge and expertise.

Thus, persistent skill underutilization among highly skilled immigrants raises issues that lie at the intersection of at least three major policy domains: the largely overlooked issue of immigrant integration, the much-debated and much-maligned system of regulating immigrant admissions, and the burgeoning analytic field of migration and development. Or, put more simply, what do we do to help immigrants succeed after they get here? How do we decide who gets in and under what terms? And how do we address the development effects of brain waste on the countries of origin?

Promoting the learning of English is both the most basic form of integration and the most consistent predictor of economic mobility—and it applies to all immigrants regardless of their skill level. In the case of immigrant professionals, there is the additional challenge of providing instruction appropriate to academic and technical professions (e.g., development of technical language and work communications skills). Another long-standing challenge involves recognizing foreign credentials in ways that balance immigrants' economic integration with trade and professional standards and, ultimately, consumer protection. Finally, there is the challenge of creating efficient training and education programs that would help highly skilled immigrants restart their careers in the US labor market. Resolving these issues is complicated by the fact that many of the essential policy levers do not lie at the federal level. Rather, they are uncoordinated and fragmented and reside within the authority of state and local governments and within private-sector and occupational groups that set licensing and certification standards.

The underutilization of highly skilled immigrants also involves issues that can be approached through reforming immigration policy with close attention to how reform can be tied more closely to US labor-market needs. Our findings suggest a shift away from a simplistic and politically toxic debate on family-versus-employment admissions by focusing on factors that enhance immigrants' integration prospects and hence add economic value to the country most directly. These factors most obviously include newcomers' employment prospects and English skills, but admissions policies should also be informed by more robust estimates of skill needs and likely shortfalls—and be recalibrated accordingly. Pragmatic

8. Points systems are an example of an immigrant admission system under which governments award points for certain characteristics of would-be immigrants. These characteristics—education, occupation, work experience, proficiency in host-country language, and age, among others—are deemed important to the integration success of future immigrants. For more information, see Demetrios Papademetriou, “Selecting Economic Stream Immigrants through Points Systems,” *Migration Information Source*, May 2007, <http://www.migrationinformation.org/Feature/display.cfm?ID=602>.

estimates of whether the country's educational and training systems could produce a sufficient number of workers for the sectors experiencing labor shortages will be at the heart of such calibrations.

Examples of this broader, more coherent policy approach can be found in measures introduced in Canada (the Internationally Trained Workers Initiative to integrate skilled immigrants) and Australia (the Migration Occupations in Demand List to identify occupations with worker supply shortages for immigration purposes). Furthermore, patterns of immigrants' skill underutilization suggest that one pathway to greater economic mobility might be expanded access to legal status itself.

Finally, regarding migration's role in the development of immigrant-origin countries, skill underutilization can be seen as representing a worst-case migration policy outcome: brain drain in the origin countries and brain waste in the destination nations. The reality of both permanent and temporary immigration is that many newcomers stay connected with their home countries by regularly sending remittances, goods, and information. Economically successful and well-integrated skilled immigrants can contribute to their home countries' development not only through greater amounts of remittances but also through circulating knowledge and ideas whose value goes well beyond economics.⁹ Migrants' potential contributions might include building the home country's social and political institutions and expanding its knowledge base.¹⁰ In fact, social and political remittances have long been part and parcel of migration although a frequently ignored element in policy considerations.

Goals and Organization of the Paper

In contrast to low-skilled immigrants, the labor-market outcomes of the highly educated have rarely attracted attention from policymakers and researchers. But critical, basic questions abound: To what extent is brain waste a reality in the United States? How do returns to higher education among immigrants who earned their degrees abroad compare to those of natives and US-educated immigrants? To what degree do national origins, English abilities, time of arrival, and other human capital and social characteristics matter to the success of the highly educated? What are the implications of underemployment patterns for both immigration and integration policies?

To begin to answer these questions, we analyzed two data sets—the 2005–2006 American Community Survey (ACS) and the 2003 New Immigrant Survey (NIS)—taking advantage of the unique information each provides on the characteristics and labor-market experiences of

9. Yevgeny Kuznetsov, ed., *Diaspora Networks and the International Migration of Skills* (Washington, DC: World Bank Institute, 2006); AnnaLee Saxenian, *The New Argonauts, Regional Advantage in a Global Economy* (Cambridge: Harvard University Press, 2006); Clay Wescott and Jennifer Brinkerhoff, *Converting Migration Drains into Gains: Harnessing the Resources of Overseas Professionals* (Manila: Asian Development Bank, 2007).

10. Luin Goldring, "Re-thinking Remittances: Social and Political Dimensions of Individual and Collective Remittances" (working paper, Center for Research on Latin America and the Caribbean, Toronto, 2003).

highly skilled immigrants in the United States. While ACS offers basic information about a large national sample, NIS offers a great deal of detailed information about a targeted sample of legal permanent residents (LPRs or green card holders). The two surveys produced similar results and, taken together, allowed us to thoroughly examine the phenomenon.

The research we present here examines three dimensions of the phenomenon. We first measure the extent to which highly skilled immigrants are underutilized in the US labor force. Next we develop a portrait of what turns out to be a diverse population of underutilized highly skilled workers. As we describe in greater detail below, we examined this population by demographic characteristics (e.g., origin region and country, tenure in the United States, English language ability), work experience in the home country and labor-market progress in the United States, and immigration admission category (e.g., employment versus family). Third, we highlight some of the policy challenges that flow from our results, emphasizing those that bear on language acquisition and credential recognition. We also note the results' relevance to immigration policy, for example, on the need to more systematically account for labor needs in a reformed immigration system.

CHAPTER 2

POINTS OF DEPARTURE

Our work on the characteristics and employment pathways of highly skilled immigrants in the United States benefits from two important strands of the migration research literature developed to explain immigrants' labor-market incorporation.¹¹ One—the assimilation literature—emphasizes the role that immigrants' characteristics play in their adaptation. The other strand focuses on the host country's institutional practices and infrastructure in promoting or impeding immigrants' labor-market incorporation.

The extensive assimilation literature generally concludes the following:¹²

- Upon arrival, immigrants typically experience downward mobility in terms of their earnings, employment, and occupational status.
- Immigrants' human capital resources, such as education and work experience, are critical determinants of their success in the host society's labor market.
- Over time, the socioeconomic position of immigrants improves as they accumulate necessary country-specific skills, such as language fluency, social and job contacts, and familiarity with business culture and practices.¹³

Our analysis of the 2005–2006 ACS explores how individuals' characteristics—their origins, place of education, and English skills, in particular—affect one's chances of (1) being unemployed and (2) being employed in an unskilled occupation. We will also examine the *relative* importance of numerous personal characteristics on the likelihood of unemployment and underemployment among foreign and US-educated immigrants compared to similarly educated native skilled workers.

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11. Noah Lewin-Epstein, Moshe Semyonov, and Irena Kogan, "Institutional Structure and Immigrant Integration: A Comparative Study of Immigrants' Labor Market Attainment in Canada and Israel," *International Migration Review* 37, no. 2 (2003): 389–420.
 12. For the overview of assimilation literature, see Lewin-Epstein et al., "Institutional Structure and Immigrant Integration." Also, see Richard Alba and Victor Nee, *Remaking the American Mainstream: Assimilation and Contemporary Immigration* (Cambridge: Harvard University Press, 2003).
 13. Demetrios Papademetriou and Will Somerville, "Observations on the Social Mobility of the Children of Immigrants in the United States and United Kingdom" (paper presented at the meeting organized by Carnegie Corporation of New York and The Sutton Trust, June 3, 2008).

Our analysis of the 2003 NIS explores the employment and occupational trajectories of highly skilled immigrants admitted for permanent settlement, comparing their status at various points during their migration history. Other researchers have found that the occupational status of some immigrant groups in Australia and the United States decreased following migration but that the declines later reversed to varying degrees depending on immigrants' origins and admission classes.¹⁴ In particular, refugees suffered the steepest occupational downgrading after migration, followed by family-sponsored immigrants and then economic immigrants. Research also points out that immigrants who arrived from countries similar to the host country in language, occupational requirements, and labor-market structure experienced less downward occupational mobility.

The other literature that informs our research stresses the importance of the host country's institutional practices and the characteristics of its labor markets.¹⁵ Canadian¹⁶ and Australian¹⁷ research reveals that even in countries that emphasize skill-based over family and other immigration streams, newcomers often experienced severe employment, occupational, and earnings disadvantages. A number of institutional barriers are blamed for skill waste, including newcomers' difficulties establishing professional and work-related competencies, the challenge of validating foreign academic credentials (by the government and licensing bodies), employers' lack of knowledge and cultural competence in evaluating and hiring internationally trained professionals, and, more broadly, discrimination against visible minorities. Another barrier is a shortage of programs offering targeted work or language training. This shortage forces immigrants to incur the time and expense of long, expensive, and often unneeded courses of instruction.¹⁸

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14. Barry R. Chiswick, Yew Liang Lee, and Paul W. Miller, "Patterns of Immigrant Occupational Attainment in a Longitudinal Survey," *International Migration* 41, no. 4 (2003): 47–69; Ilana Redstone Akresh, "Occupational Trajectories of Legal US Immigrants: Downgrading and Recovery," *Population and Development Review* 34, no. 3 (2008): 435–456.
 15. Jeffrey Reitz, "Host Societies and the Reception of Immigrants: Research Themes, Emerging Theories and Methodological Issues," *International Migration Review* 36, no. 4 (2002): 1005–1019; Lewin-Epstein et al., "Institutional Structure and Immigrant Integration."
 16. Reitz, "Host Societies"; Jason Gilmore and Christel Le Petit, *The Canadian Immigrant Labour Market in 2007: Analysis by Region of Postsecondary Education* (Ottawa: Statistics Canada, July 2008), <http://www.statcan.ca/english/freepub/71-606-XIE/71-606-XIE2008004.pdf>.
 17. Bob Birrell, Lesleyanne Hawthorne, and Sue Richardson, *Evaluation of the General Skilled Migration Categories* (Canberra: Commonwealth of Australia, March 2006), <http://www.immi.gov.au/media/publications/research/gsm-report/index.htm>.
 18. Peter Creticos, James Schultz, Amy Beeler, and Eva Ball, *The Integration of Immigrants in the Workplace* (Chicago: Institute for Work and the Economy, 2006).

CHAPTER 3

SKILL UNDERUTILIZATION AMONG EDUCATED IMMIGRANTS: RESULTS FROM THE AMERICAN COMMUNITY SURVEY

To examine skill underutilization, we pooled ACS data from 2005 and 2006. Because ACS data do not report the country where respondents received their education, we used a proxy measure for whether an immigrant's degree was earned outside the United States. We did this by defining "foreign-educated" immigrants as immigrants with at least a bachelor's degree and who entered the United States at age 25 or older.¹⁹ We defined "US-educated" immigrants as those with a bachelor's degree or higher and who entered the United States before age 25.

We disaggregated these immigrants by their time of arrival, distinguishing between "recently arrived" (those who arrived in the last ten years) and "long-term immigrants" (those who have been here at least 11 years). We need to emphasize that *time of arrival* and its correlate *time spent in the United States* represent an assortment of events that might take place in skilled immigrants' lives after arrival and might bear on their economic mobility. These include developing professional networks, gaining more US work experience, improving English fluency, obtaining a US education, and/or changing one's profession altogether. These events can also reflect a deepening retreat in the face of US labor-market realities, i.e., partial or permanent withdrawal from the labor market and/or long-term underemployment.

We also categorized the ACS immigrant respondents according to the region of the world in which they were born. The *region of birth* variable is more than a geographic variable. In the absence of detailed information about educated immigrants in ACS, this variable becomes a rough proxy for a combination of many factors. These include socioeconomic and linguistic constraints and opportunities at home; similarity in cultural and business practices between the origin countries and the United States; educational systems' quality and comparability

19. The term "immigrant" refers to people residing in the United States at the time of the survey who were not US citizens at birth. We use the terms "immigrants" and "foreign born" interchangeably. The foreign-born population includes naturalized citizens, legal permanent residents, refugees and asylees, legal non-immigrants (including those on student, work, or certain other temporary visas), and persons residing in the country without authorization. By comparison, the term "native" (or "US born") refers to people residing in the United States who fall into one of three categories: 1) people born in one of the 50 states or the District of Columbia, 2) people born in US insular areas such as Puerto Rico and Guam, or 3) people who were born abroad to at least one US citizen parent.

with that of the United States; and different modes of admission and climates of reception in the United States for newcomers from different world regions.

We selected four regions—Asia, Europe/Canada/Oceania, Latin America, and Africa—to ensure adequate sample size and because these regions vary in terms of the education and training of the immigrants they send. We further subdivided these origin regions to examine large countries (e.g., China, India, the Philippines, Mexico) and aggregations of countries (e.g., Eastern Europe). For comparison, we analyzed the demographic and economic characteristics of US-born workers.

We then developed a methodology for assigning workers to one of three occupational groupings: unskilled, skilled technical, and high skilled according to the level of training or education typically required (for a brief description of our methodology, see Appendix A). The assignments were made according to the Bureau of Labor Statistics (BLS) classification, which indicates the highest level of education and training typically required to work in a given occupation.²⁰ We matched ACS occupational codes to the 11 BLS-specified education/training categories, eventually collapsing them into the three groups (see Table 1).

Immigrants in the Highly Skilled Workforce

In 2005–2006 there were 20.3 million immigrants age 25 and older, or 16.1 percent of the total US civilian labor force.²¹ Overall, the educational profile of these immigrants was lower than for the native population because a much larger share of immigrants (28.1 percent) than natives (7.4 percent) had less than a high school education.²² At the high end of the educational spectrum, immigrant and native workers looked more alike. The shares with a bachelor's degree were roughly the same (17.2 percent of the foreign born versus 20.5 percent of natives). The same was true for those with advanced degrees (12.6 percent of the foreign born versus 11.5 percent of natives). This report focuses on immigrant and native workers with at least a college degree.

In 2005–2006 there were 6.1 million immigrants 25 or older with a bachelor's or higher degree, representing 15.2 percent of all college-educated persons in the US civilian labor force. Over half (53.4 percent) of these highly skilled immigrants appear to have received their college educations abroad. Asians were heavily overrepresented among the highly skilled. Although they made up 27.4 percent of adult immigrants in the US civilian labor force, they were half (49.8 percent) of all highly skilled immigrants. In contrast, Latin Americans were

20. The US Bureau of Labor Statistics (BLS) definitions of skill and training levels associated with specific occupations are located at <ftp://ftp.bls.gov/pub/special.requests/ep/optddata/optd.zip>.

21. Persons are considered to be “in the civilian labor force” if they have worked at least part time, performed unpaid work for a family business or farm, been temporarily absent from a job, or if they were unemployed but actively looking for work. This does not include members of the armed forces. Persons not in the labor force include homemakers, retirees, students who do not work, and others who are neither working outside the home nor looking for work.

22. See Jeanne Batalova and Michael Fix, “Highly Skilled Immigrant and Native-Born Workers in the United States,” *Migration Information Source*, forthcoming.

TABLE I. DEFINING UNSKILLED, SKILLED TECHNICAL, AND HIGH-SKILLED JOBS

- *Unskilled occupations* require no more than modest on-the-job training (e.g., construction laborers, customer-service representatives, child-care workers, house cleaners and maids, file clerks).
 - *Skilled technical occupations* typically employ workers with long-term on-the-job training, vocational training, or associate's degrees (e.g., carpenters, electricians, chefs and head cooks, massage therapists, real estate brokers).
 - *High-skilled occupations* require at least a bachelor's degree (e.g., scientists and engineers, doctors, financial managers, postsecondary teachers).
-

underrepresented: Although they made up 54.3 percent of all adult immigrants in the labor force, they accounted for only 22.8 percent of the highly skilled among the foreign educated.

Foreign-educated immigrants were significantly more likely than native or US-educated immigrant workers to hold a PhD or professional degree. About a quarter of long-term immigrants from Europe and Africa, and about a fifth of long-term Asian and Latin American immigrants reported having a PhD or professional degree compared to 10.9 percent of US natives (see Appendix B).

Unemployment and Employment Patterns

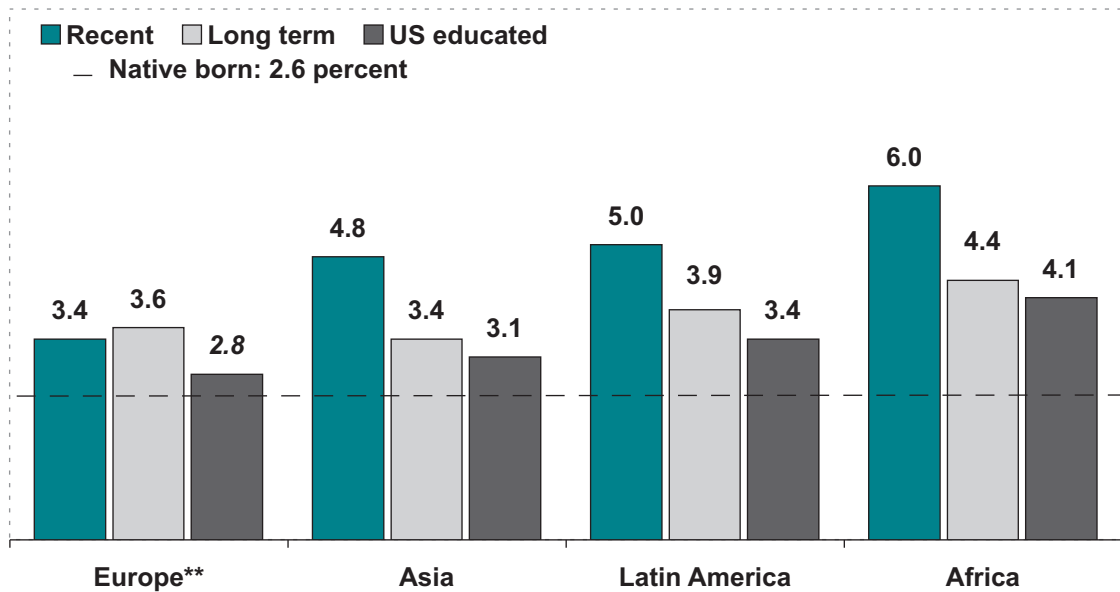
There are striking differences in the three predominant types of labor-market outcomes—unemployment, employment, and self-employment—depending on workers' place of origin and education, and the amount of time an individual has spent in the United States (see Table 2).²³ In 2005–2006 there were 1.1 million unemployed highly skilled workers. Skilled immigrants were overrepresented among the unemployed (20.0 percent) compared to their share of all skilled workers (15.2 percent).

Highly skilled immigrants had higher unemployment rates than their native-born counterparts (see Figure 1). Of all immigrants, those with a US degree had the lowest unemployment rates. Besides a US degree, these workers had the advantage of longer tenure in the country and hence presumably better English skills and greater familiarity with US labor markets. In contrast, recently arrived foreign-educated immigrants had the highest rates of unemployment.

In terms of origin, immigrants from Europe were the least likely to be unemployed while African-born immigrants were the most likely. In particular, recently arrived, foreign-educated Africans had unemployment rates that were twice as high as natives (6.0 percent versus 2.6 percent).

23. Unemployment rates refer to the share of those who were unemployed but actively looking for a job during a reference week among the total civilian labor force population. Self-employed rates refer to the share of the civilian labor force that is self-employed (i.e., those who reported being self-employed in their own incorporated or not incorporated business, professional practice, or farm, as well as those who reported working without pay in a family business).

Figure 1. Share of the College Educated Who Are Unemployed: *Native vs. Recent and Long-Term Foreign-Educated vs. US-Educated Immigrant Workers, 2005-2006**



Notes: *Refers to college-educated workers age 25 and older in the US civilian labor force, including the self-employed. Among the foreign educated, "recent" refers to immigrants who came to the United States ten or fewer years ago, while "long term" includes immigrants who have been in the United States for 11 years or longer. **"Europe" refers to Europe, Canada, and Oceania. Statistically *nonsignificant* differences in the likelihood of unemployment between immigrant groups and native workers are in italics. The unemployment rate of the college-educated native born in the US civilian labor force was 2.6 percent.

Source: MPI analysis of 2005-2006 ACS.

By another measure of employment status—the share working full time, year-round—all highly skilled immigrants regardless of origin region did as well or better than natives except for recent arrivals (see Table 2).

Earnings

In terms of earnings, recently arrived immigrants from Latin America, Africa, and Asia who were foreign educated generally earned less than natives and long-term immigrants. Regardless of place of education, immigrants from Europe had significantly higher earnings than immigrants from all other regions. In general, immigrants who had lived in the United States for at least ten years had higher average earnings than natives, with the exception of Latin Americans. Long-term, European-born immigrants earned significantly more than all other groups, including native workers.

These preliminary findings show that recently arrived immigrants tend to lag natives while those of longer tenure do comparatively well.²⁴ Those who have been here longer are more likely to leverage assets like US experience and English skills into economic rewards. The findings dovetail with evidence presented by other researchers and suggest that education and labor-market experience acquired abroad are either discounted or not effectively transferred to the host-country's labor market.²⁵

The process of labor-market integration does not proceed uniformly among all immigrants. Regardless of time of arrival or place of education, immigrants from Latin America and Africa had higher unemployment rates and lower earnings than their counterparts from other regions. Latin Americans who were recently arrived and educated abroad had the worst labor-market outcomes, and they appeared to have the lowest return on their education investment. Nonetheless, there were steep increases in earnings with more time in the United States for all foreign-educated highly skilled.

The Skill Levels of Jobs Held by Immigrants

Next we investigated the type of occupations highly skilled immigrants²⁶ are likely to find in the US labor market. Table 3 displays the percent of employed workers in high-skilled, skilled-technical, and unskilled occupations, broken down by workers' educational attainment. Since our primary focus was the worst form of human capital waste, we mostly concentrated on the shares and characteristics of the highly skilled immigrants in unskilled

24. Similarly, a 2008 study by Statistics Canada reported that the employment gap between foreign-educated immigrants and their Canadian counterparts is smaller for immigrants who had been in Canada for ten years or longer. See Gilmore and Le Petit, *Canadian Immigrant Labour Market*.

25. Lewin-Epstein et al., "Institutional Structure and Immigrant Integration." Rachel Friedberg, "You Can't Take It with You? Immigrant Assimilation and the Portability of Human Capital," *Journal of Labor Economics* 18, no. 2 (2000): 221–246.

26. This section concerns employed workers in the US civilian labor force but excludes the self-employed.

TABLE 2. LABOR-MARKET CHARACTERISTICS OF THE HIGHLY SKILLED, 2005–2006*

| | Native born | Foreign educated by place of birth | | | | | | | | US educated by place of birth | | | |
|-----------------------------------|-------------|------------------------------------|---------|---------------|---------|-----------|---------|---------------|--------|-------------------------------|-----------|---------------|---------|
| | | Recent arrivals | | | | Long term | | | | | | | |
| | | Europe** | Asia | Latin America | Africa | Europe** | Asia | Latin America | Africa | Europe** | Asia | Latin America | Africa |
| Unemployed | | | | | | | | | | | | | |
| Number (estimate) | 893,134 | 13,060 | 38,744 | 18,220 | 7,189 | 12,377 | 28,180 | 11,153 | 4,362 | 16,319 | 42,468 | 25,291 | 5,668 |
| Share of the civilian labor force | 2.6 | 3.4 | 4.8 | 5.0 | 6.0 | 3.6 | 3.4 | 3.9 | 4.4 | 2.8 | 3.1 | 3.4 | 4.1 |
| Employed | | | | | | | | | | | | | |
| Number (estimate) | 32,875,209 | 369,921 | 766,644 | 345,501 | 112,227 | 333,795 | 809,335 | 272,231 | 94,215 | 556,852 | 1,336,434 | 712,129 | 131,849 |
| Full-time, year-round | 70.0 | 69.9 | 64.8 | 67.0 | 65.0 | 72.1 | 72.6 | 72.0 | 73.3 | 70.0 | 73.1 | 73.6 | 71.8 |
| Weeks worked (mean) | 48.4 | 47.4 | 46.5 | 46.9 | 46.2 | 48.7 | 48.9 | 48.7 | 49.1 | 48.4 | 48.5 | 48.3 | 48.3 |
| Hours worked (mean) | 42.2 | 43.6 | 41.3 | 41.3 | 41.7 | 42.7 | 41.9 | 41.2 | 43.2 | 42.5 | 42.5 | 42.2 | 43.3 |
| Earnings in US\$ (mean) | 69,876 | 73,072 | 54,876 | 39,373 | 47,417 | 84,209 | 72,085 | 52,742 | 73,171 | 76,104 | 73,940 | 56,377 | 66,677 |
| Self-employed | | | | | | | | | | | | | |
| Number (estimate) | 4,292,493 | 36,609 | 53,162 | 40,731 | 8,793 | 63,011 | 150,645 | 43,838 | 15,295 | 84,649 | 153,593 | 74,672 | 17,046 |
| Share of the civilian labor force | 13.1 | 9.9 | 6.9 | 11.8 | 7.8 | 18.9 | 18.6 | 16.1 | 16.2 | 15.2 | 11.5 | 10.5 | 12.9 |

Notes: *Refers only to college-educated persons in the US civilian labor force age 25 and older, including the self-employed. **“Europe” refers to Europe, Canada, and Oceania. “Foreign educated” are defined as immigrants with a bachelor’s or higher degree who came to the United States before age 25. Among the foreign educated, “recent arrivals” are immigrants who came to the United States ten or fewer years ago, while “long term” are those who came to the United States 11 or more years ago. Earnings refer to personal annual positive earnings. Tests for group differences (with native workers as a reference category) indicated that all group differences in the likelihood of being unemployed or self-employed as well as differences in earnings were statistically significant at least at $p < 0.05$ level, except for those in italics.

Source: MPI analysis of 2005–2006 ACS.

TABLE 3. HIGHLY SKILLED WORKERS BY DEGREE LEVEL AND OCCUPATIONAL TYPE, 2005–2006*

| | Foreign educated by place of birth | | | | | | | | | | | | |
|-------------------------------------|------------------------------------|-----------------|-------------|---------------|-------------|-------------|-------------|---------------|--------|-------------------------------|-------------|---------------|-------------|
| | Native born | Recent arrivals | | | | Long term | | | | US educated by place of birth | | | |
| | | Europe** | Asia | Latin America | Africa | Europe** | Asia | Latin America | Africa | Europe** | Asia | Latin America | Africa |
| Bachelor's degree | | | | | | | | | | | | | |
| Number (employed) | 18,463,613 | 155,630 | 370,424 | 199,121 | 64,820 | 115,514 | 365,916 | 142,165 | 39,203 | 276,498 | 685,970 | 452,111 | 71,045 |
| Occupational distribution | | | | | | | | | | | | | |
| Percent in high skilled | 50.9 | 47.0 | 43.2 | 25.4 | 32.2 | 45.0 | 32.6 | 28.9 | 32.7 | <i>51.0</i> | 53.5 | 41.3 | <i>48.7</i> |
| Percent in skilled technical | 26.1 | 25.5 | 26.7 | 24.8 | 27.8 | 30.5 | 32.8 | 28.5 | 34.1 | 26.7 | <i>25.4</i> | 28.5 | <i>28.0</i> |
| Percent in unskilled | 23.0 | 27.5 | 30.1 | 49.9 | 39.9 | <i>24.6</i> | 34.6 | 42.6 | 33.2 | 22.3 | 21.0 | 30.1 | 23.3 |
| Master's degree | | | | | | | | | | | | | |
| Number (employed) | 7,450,288 | 107,503 | 227,059 | 59,967 | 23,029 | 85,113 | 164,800 | 47,940 | 21,393 | 127,725 | 344,045 | 131,177 | 29,302 |
| Occupational distribution | | | | | | | | | | | | | |
| Percent in high skilled | 75.1 | 65.6 | 76.2 | 52.7 | 54.5 | 62.3 | 69.1 | 56.0 | 66.5 | 72.1 | 77.5 | 69.0 | 68.9 |
| Percent in skilled technical | 15.6 | 19.7 | 12.0 | 21.2 | 21.6 | 21.8 | 18.2 | 23.9 | 16.1 | 18.1 | <i>15.9</i> | 17.1 | 19.9 |
| Percent in unskilled | 9.3 | 14.7 | 11.8 | 26.2 | 23.9 | 15.9 | 12.7 | 20.2 | 17.5 | 9.9 | 6.6 | 13.8 | <i>11.2</i> |
| Doctoral/professional degree | | | | | | | | | | | | | |
| Number (employed) | 2,668,816 | 70,180 | 116,001 | 45,684 | 15,586 | 70,158 | 127,974 | 38,289 | 18,325 | 67,981 | 152,827 | 54,170 | 14,457 |
| Occupational distribution | | | | | | | | | | | | | |
| Percent in high skilled | 84.3 | 82.0 | 86.2 | 41.6 | 71.3 | <i>84.3</i> | 82.9 | 58.1 | 86.7 | <i>86.1</i> | 88.6 | 68.9 | 86.5 |
| Percent in skilled technical | 11.2 | <i>11.7</i> | 8.1 | 19.9 | <i>12.0</i> | <i>10.4</i> | <i>12.0</i> | 19.1 | 8.5 | 9.4 | 8.9 | 16.8 | 6.4 |
| Percent in unskilled | 4.4 | 6.2 | 5.7 | 38.5 | 16.7 | <i>5.3</i> | <i>5.1</i> | 22.8 | 4.7 | <i>4.5</i> | 2.6 | 14.3 | 7.1 |
| College educated (total) | | | | | | | | | | | | | |
| Number (employed) | 28,582,717 | 333,312 | 713,483 | 304,771 | 103,434 | 270,785 | 658,690 | 228,393 | 78,921 | 472,203 | 1,182,841 | 637,457 | 114,804 |
| Occupational distribution | | | | | | | | | | | | | |
| Percent in high skilled | 60.3 | <i>60.4</i> | <i>60.7</i> | 33.2 | 43.1 | <i>60.6</i> | 51.5 | 39.5 | 54.4 | 61.7 | 65.0 | 49.4 | 58.6 |
| Percent in skilled technical | 22.0 | 20.7 | 19.0 | 23.3 | 24.1 | 22.5 | 25.1 | 25.9 | 23.3 | <i>21.9</i> | 20.5 | 25.2 | 23.2 |
| Percent in unskilled | 17.7 | 18.9 | 20.3 | 43.5 | 32.9 | <i>16.8</i> | 23.4 | 34.6 | 22.3 | 16.4 | 14.4 | 25.4 | <i>18.2</i> |

Notes: *Refers only to college-educated employed persons in the US civilian labor force age 25 and older, excluding the self-employed. **“Europe” refers to Europe, Canada, and Oceania. “Foreign educated” are defined as immigrants with a bachelor’s or higher degree who came to the United States before age 25. Among the foreign educated, “recent arrivals” are immigrants who came to the United States ten or fewer years ago, while “long term” are those who came to the United States 11 or more years ago. Tests for group differences (with native workers as a reference category) indicated that all group differences in high-skilled, skilled-technical, and unskilled categories were statistically significant at least at p < 0.05 level, except for those in italics.

Source: MPI analysis of 2005–2006 ACS.

jobs, although the group variation among immigrants working in semiskilled and high-skill jobs also warrant future examination.

Several striking patterns emerged. First, with the exception of Europeans, foreign-educated immigrants from all regions tended to be in lower-skilled jobs than natives, a pattern found at every level of education. Of all foreign-educated immigrants, those from Europe resembled natives most closely. In contrast, Latin Americans and, to a lesser extent, recently arrived Africans who received their degrees abroad were more likely to be in unskilled jobs than either natives or other highly skilled immigrants, regardless of their education level.

In general, immigrants with the highest levels of education were less likely to work in unskilled jobs. For example, the share of European and Asian immigrants employed in unskilled jobs was significantly lower among PhD holders than among bachelor's degree holders (see Table 3). That said, the gap between natives and foreign-educated newcomers from Latin America and Africa working in unskilled jobs was actually the widest for those with PhD/professional degrees: these recently arrived, foreign-educated workers were four or more times as likely as natives with the same level of education to be in unskilled jobs.

Of the 5.1 million employed highly skilled immigrants, 21.6 percent (or 1.1 million) were in unskilled jobs compared to 17.7 percent of native workers. The rates varied by place of education: Foreign-educated workers were more likely to be underemployed (24.9 percent) than their US-trained counterparts (17.9 percent). However, some immigrant groups were more prone to work in low-end occupations. Nationwide, 43.5 percent of recently arrived Latin American and 32.9 percent of African foreign-educated immigrants were working in unskilled jobs (see Figure 2).

Longer residence in the United States was associated with improved outcomes for all immigrant groups. In nearly all instances, long-term immigrants were less likely to be in low-skilled jobs than their recently arrived counterparts. Nevertheless, 34.6 percent of Latin Americans who had been in the United States for 11 or more years were still working in unskilled jobs.

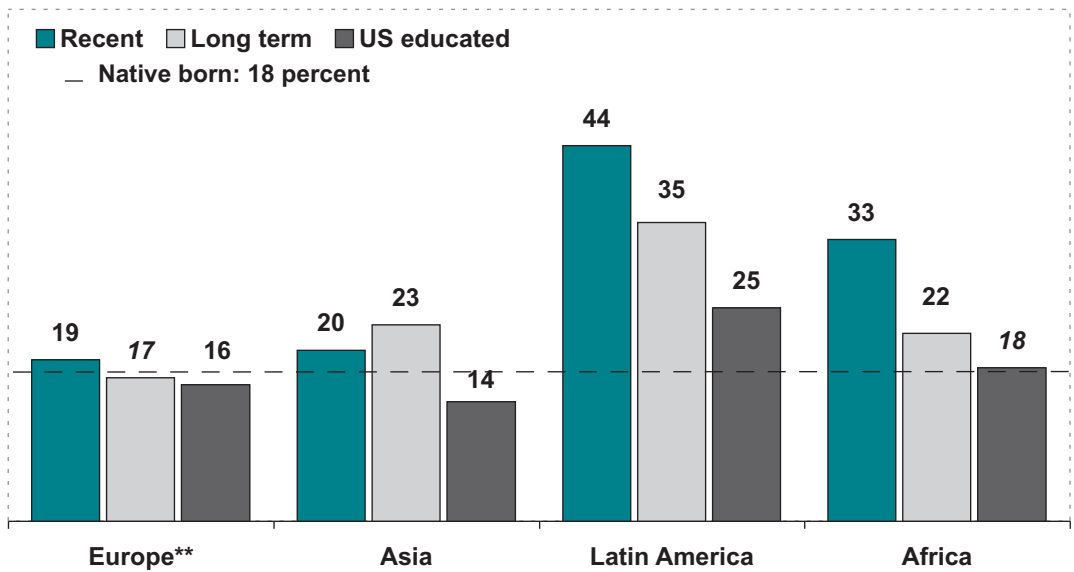
Place of education was also important, especially among immigrants from Latin America. Those with a US education were significantly less likely than their foreign-educated compatriots to work in unskilled occupations.

Country Variations

Although immigrant workers from Europe and Asia had somewhat similar rates of employment in unskilled occupations, there were significant variations within these two regions (see Table 4). Foreign-educated, recently arrived workers born in China and India were much less likely to be underemployed (10.0 percent and 12.5 percent, respectively), than those from the Philippines (34.6 percent) and the rest of Asia (31.9 percent). Indeed, one explanation for the fact that recent Asian immigrants were less likely to work in unskilled jobs than long-term Asian immigrants may be an increase in the quality of education and professional credentials of recent immigrants from India and China.

Highly skilled recent arrivals from Eastern Europe were three times more likely to work in unskilled occupations (33.1 percent) than those from Western Europe, Canada, or Oceania (10.3 percent). Long-term, foreign-educated immigrants from Eastern Europe were also more likely to be underemployed (21.6 percent) than their counterparts from the West (13.0 percent).

Figure 2. Share of the College Educated Employed in Unskilled Occupations: Native vs. Recent and Long-Term Foreign-Educated vs. US-Educated Immigrant Workers, 2005-2006*



Notes: *Refers to college-educated employed workers age 25 and older in the US civilian labor force, excluding the self-employed. Among the foreign educated, "recent" refers to immigrants who came to the United States ten or fewer years ago, while "long term" includes immigrants who have been in the United States for 11 years or longer. ***"Europe" refers to Europe, Canada, and Oceania. Statistically *nonsignificant* differences in the likelihood of unskilled employment between immigrant groups and native workers are in italics. The share of the college-educated native born employed in unskilled jobs was 17.7 percent.

Source: MPI analysis of 2005-2006 ACS.

TABLE 4. SHARE OF COLLEGE-EDUCATED IMMIGRANTS WORKING IN UNSKILLED OCCUPATIONS, 2005–2006*

| | Recent immigrants | | Long-term immigrants | | US-educated immigrants | |
|-------------------------|-------------------|--------------------------------|----------------------|--------------------------------|------------------------|--------------------------------|
| | Employed workers | Share in unskilled occupations | Employed workers | Share in unskilled occupations | Employed workers | Share in unskilled occupations |
| Europe | 333,312 | 18.9 | 270,785 | 16.8 | 472,203 | 16.4 |
| W.Europe/Canada/Oceania | 207,577 | 10.3 | 149,666 | 13.0 | 344,359 | 15.6 |
| Eastern Europe | 125,736 | 33.1 | 121,119 | 21.6 | 127,845 | 18.5 |
| Asia | 713,483 | 20.3 | 658,690 | 23.4 | 1,182,841 | 14.4 |
| China | 112,744 | 10.0 | 98,387 | 12.7 | 111,558 | 11.8 |
| India | 228,625 | 12.5 | 124,770 | 19.3 | 265,618 | 10.3 |
| Japan/Asian Tigers | 120,099 | 17.9 | 110,869 | 21.6 | 267,682 | 13.7 |
| Philippines | 116,202 | 34.6 | 186,163 | 31.8 | 167,242 | 19.4 |
| Rest of Asia | 135,814 | 31.9 | 138,502 | 24.6 | 370,741 | 16.5 |
| Latin America | 304,771 | 43.5 | 228,393 | 34.6 | 637,457 | 25.4 |
| Mexico | 78,224 | 46.5 | 37,953 | 41.7 | 162,305 | 33.7 |
| Rest of Latin America | 226,547 | 42.5 | 190,440 | 33.2 | 475,152 | 22.6 |
| Africa | 103,434 | 32.9 | 78,921 | 22.3 | 114,804 | 18.2 |

Notes: *Refers only to college-educated employed persons in the US civilian labor force age 25 and older, excluding the self-employed. “Asian Tigers” refers to Singapore, Taiwan, South Korea, and Hong Kong. “Foreign educated” are defined as immigrants with a bachelor’s or higher degree who came to the United States before age 25. Among the foreign educated, “recent arrivals” are immigrants who came to the United States ten or fewer years ago, while “long term” are those who came to the United States 11 or more years ago. The share of native workers employed in unskilled occupations was 17.7 percent. Tests for group differences (with native workers as a reference category) indicated that group differences in the likelihood of being in unskilled occupations were statistically significant at least at $p < 0.05$ level, except for those in italics.

Source: MPI analysis of 2005–2006 ACS.

Assessing the Impact of Language Proficiency

We also examined the relative effects of origin region, place of education, and English proficiency on the likelihood of being unemployed or underemployed, controlling for various social and human-capital characteristics. The results of our logistic regression analysis are available upon request.²⁷

In brief, the logistic regression results confirmed earlier findings on the impact of nativity, places of origin and education, and time in the United States displayed in Figures 1 and 2. They also suggested that a worker's English skills played a major role in finding a job and finding a job consistent with one's qualifications: *limited English proficient (LEP) workers were twice as likely to work in unskilled jobs as those who were English proficient.*²⁸

State-Level Findings on Skill Underutilization

We also examined patterns of skill underutilization in four states: California, Illinois, Maryland, and New York. We selected these states primarily because there are visible, significant public and/or private initiatives that address skill waste within each. The four states varied in the share that immigrants represented of the state skilled workforce: 30 percent in California, 24 percent in New York, 18 percent in Maryland, and 16 percent in Illinois (see Appendix C for selected social and demographic characteristics of skilled employed workers in the four states).

Although the patterns of skill underutilization in these four states followed the same general trends as at the national level, the four states differed in the degree of skill underutilization of individual groups of workers. Several state-level results are particularly notable (see also Table 5 and Appendix D for state-level charts):

- Of the four states, California had the largest absolute number of underutilized college-educated immigrants (317,000), and immigrants constituted the largest share (34.6 percent) of the state's total underemployed skilled labor force. Maryland had the lowest number of underutilized highly skilled immigrants (35,506) whereas Illinois had the lowest share (20.5 percent) of immigrants among all underutilized workers in the state. At the national level, immigrants accounted for 18.3 percent (or 1.3 million) of the 7.3 million underutilized college graduates. Since immigrants were 16.1 percent of the US civilian labor force, they were slightly overrepresented among the underemployed highly skilled.

27. Similar to other statistical models that aim to describe a relationship between an outcome variable and a set of explanatory variables, logistic regression is used in cases where the outcome variable is dichotomous. See David Hosmer and Stanley Lemeshow, *Applied Logistic Regression 2* (New York: John Wiley and Sons, 2000), 1. Regression modeling permits us to isolate the effect of individual explanatory variables (such as English skills) on an outcome variable (such as unemployment rates) holding constant all other explanatory variables.

28. Australian researchers similarly found that immigrants with limited English abilities were twice as likely to be employed in relatively low-skilled jobs. See Birrell et al., *General Skilled Migration Categories*.

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- In Illinois, highly skilled European migrants—many from Eastern Europe²⁹—had worse employment outcomes than Europeans in the other three states and the nation overall.
 - Recently arrived highly skilled Latin Americans in California and Illinois were more likely to be unemployed or to work in unskilled occupations than their counterparts living in Maryland and New York. The patterns among long-term immigrants from Latin America were just the opposite: they had higher rates of unemployment in Maryland and New York than in Illinois and California.
 - In general, highly skilled immigrants from Europe and Asia living in Maryland fared better in finding jobs and finding skilled jobs than those in the other three states and the nation overall.
 - Maryland’s foreign-educated immigrants from Africa had much worse outcomes (i.e., higher rates of unemployment and working in unskilled jobs) than Africans residing in the other three states. There was also a wider gap between the outcomes of foreign-educated Africans and European, Asian, and US-born college-educated workers in Maryland than in the other states.

29. In Illinois, Eastern Europeans accounted for 61.5 percent of the highly skilled workers from Europe/Canada/Oceania. In contrast, they accounted for a smaller share of the immigrants from these regions in other states: 28.4 percent in California, 35.8 percent in Maryland, and 48.2 percent in New York.

TABLE 5. SHARE OF HIGHLY SKILLED WORKERS WHO WERE UNEMPLOYED OR IN UNSKILLED OCCUPATIONS BY STATE, 2005–2006*

| | Foreign educated by place of birth | | | | | | | | | | | | US educated by place of birth | |
|----------------------|------------------------------------|-----------------|---------|---------------|---------|-----------|---------|---------------|--------|----------|-----------|---------------|-------------------------------|--|
| | Native born | Recent arrivals | | | | Long term | | | | Europe** | Asia | Latin America | | |
| | | Europe** | Asia | Latin America | Africa | Europe** | Asia | Latin America | Africa | | | | | |
| California | | | | | | | | | | | | | | |
| Civilian labor force | 3,535,436 | 62,450 | 213,169 | 42,553 | 11,561 | 65,911 | 276,413 | 43,327 | 13,301 | 106,063 | 482,416 | 147,035 | 21,654 | |
| % unemployed | 3.2 | 4.1 | 5.7 | 7.8 | 6.3 | 4.2 | 3.3 | 3.0 | 1.5 | 2.4 | 3.2 | 3.1 | 3.2 | |
| Employed | 2,857,903 | 52,925 | 183,107 | 33,770 | 9,601 | 48,400 | 213,147 | 33,276 | 9,613 | 83,044 | 410,281 | 126,895 | 16,869 | |
| % in unskilled jobs | 17.0 | 13.5 | 23.5 | 43.6 | 21.9 | 14.6 | 27.8 | 37.0 | 22.4 | 16.8 | 15.7 | 26.7 | 13.2 | |
| Illinois | | | | | | | | | | | | | | |
| Civilian labor force | 1,578,232 | 25,957 | 42,822 | 12,975 | 3,782 | 24,130 | 45,744 | 8,058 | 3,606 | 34,670 | 72,456 | 25,348 | 4,062 | |
| % unemployed | 2.9 | 5.3 | 5.0 | 6.9 | 2.5 | 4.6 | 3.3 | 2.8 | 2.0 | 4.5 | 3.5 | 3.8 | 6.6 | |
| Employed | 1,351,127 | 21,230 | 37,637 | 11,459 | 3,076 | 18,776 | 36,069 | 6,978 | 2,889 | 28,144 | 62,535 | 21,252 | 3,334 | |
| % in unskilled jobs | 17.6 | 29.4 | 24.1 | 56.8 | - | 22.2 | 21.3 | 31.9 | - | 18.8 | 14.3 | 34.4 | - | |
| Maryland | | | | | | | | | | | | | | |
| Civilian labor force | 822,150 | 8,547 | 25,778 | 7,113 | 11,851 | 8,636 | 25,263 | 5,981 | 10,634 | 13,058 | 36,364 | 17,430 | 10,939 | |
| % unemployed | 1.8 | 2.9 | 4.2 | 5.4 | 7.7 | 1.7 | 1.6 | 8.0 | 7.3 | 2.1 | 2.6 | 2.0 | 1.4 | |
| Employed | 717,732 | 7,980 | 22,781 | 5,770 | 10,395 | 7,438 | 21,093 | 4,681 | 8,809 | 11,300 | 32,277 | 15,494 | 9,684 | |
| % in unskilled jobs | 13.8 | 12.2 | 20.2 | 43.0 | 41.3 | 11.3 | 15.2 | 25.7 | 27.4 | 14.6 | 9.6 | 16.0 | 22.3 | |
| New York | | | | | | | | | | | | | | |
| Civilian labor force | 2,315,647 | 57,528 | 68,222 | 36,793 | 11,099 | 59,953 | 84,463 | 50,840 | 12,110 | 80,579 | 132,866 | 128,269 | 13,753 | |
| % unemployed | 3.0 | 3.2 | 4.9 | 4.6 | 4.3 | 3.4 | 3.9 | 4.1 | 2.9 | 3.1 | 3.3 | 3.3 | 2.1 | |
| Employed | 1,949,575 | 49,813 | 59,653 | 32,099 | 9,641 | 47,817 | 64,051 | 43,378 | 10,414 | 65,637 | 111,694 | 112,385 | 11,520 | |
| % in unskilled jobs | 17.3 | 19.6 | 23.8 | 37.6 | 29.4 | 22.3 | 24.2 | 30.8 | 24.9 | 16.3 | 16.9 | 22.2 | 18.3 | |
| United States | | | | | | | | | | | | | | |
| Civilian labor force | 33,768,343 | 382,981 | 805,388 | 363,721 | 119,416 | 346,172 | 837,515 | 283,384 | 98,577 | 573,170 | 1,378,902 | 737,420 | 137,517 | |
| % unemployed | 2.6 | 3.4 | 4.8 | 5.0 | 6.0 | 3.6 | 3.4 | 3.9 | 4.4 | 2.8 | 3.1 | 3.4 | 4.1 | |
| Employed | 28,582,717 | 333,312 | 713,483 | 304,771 | 103,434 | 270,785 | 658,690 | 228,393 | 78,921 | 472,203 | 1,182,841 | 637,457 | 114,804 | |
| % in unskilled jobs | 17.7 | 18.9 | 20.3 | 43.5 | 32.9 | 16.8 | 23.4 | 34.6 | 22.3 | 16.4 | 14.4 | 25.4 | 18.2 | |

Notes: *Refers to workers age 25 and older. Civilian labor force includes self-employed; the “employed” number excludes self-employed. **“Europe” refers to Europe, Canada, and Oceania. Statistically significant differences in the likelihood of unemployment and underemployment between immigrant groups and native workers are present within a state except for numbers in italics; “-” indicates that the sample size was too small to obtain statistically significant results.

Source: MPI analysis of 2005–2006 ACS.

CHAPTER 4

OCCUPATIONAL TRAJECTORIES OF HIGHLY SKILLED LEGAL PERMANENT RESIDENTS: RESULTS FROM THE NEW IMMIGRANT SURVEY

The comparatively large foreign-born sample in ACS offers a good vehicle for studying the labor-market outcomes of highly educated workers. However, ACS does not provide any information on respondents' legal status or prior work experiences. The 2003 New Immigrant Survey overcomes these deficiencies, providing a unique opportunity for understanding skill-utilization patterns among recent immigrants admitted for permanent residence.³⁰ NIS is the first nationally representative longitudinal study of legal permanent residents (LPRs) and their children; it is based on records compiled by the former Immigration and Naturalization Service.³¹ What distinguishes NIS from other datasets is the survey's coverage of a wide range of pre- and postmigration experiences, including employment, occupation, English ability, place of the highest degree received, and category of admission, such as family, employment, refugee, etc.

The NIS respondents were asked about their employment and occupational status before they arrived to live in the United States (we call it "last job abroad"); after coming here ("first US job"); and at the time of the NIS survey ("current US job"). By comparing the likelihood of being employed and the occupation type at different points in time, we gained a unique perspective on the employment and occupational trajectories of immigrants granted legal permanent residence in the United States. This analysis sheds light on how well these immigrants are doing in the US labor market, as well as on possible barriers to better outcomes.

In addition to occupational history, the NIS data permitted us to do the following:

- Focus on legal permanent residents, thus excluding nonimmigrants, the unauthorized, and naturalized citizens. As a result, we eliminated differences in legal status as a factor in differing labor-market outcomes.

30. Guillermina Jasso, Douglas Massey, Mark Rosenzweig, and James Smith, "The New Immigrant Survey 2003 Round 1 (NIS-2003-1) Public Release Data," March 2006, <http://nis.princeton.edu>.

31. Besides a limited pilot survey, currently only the first (2003) NIS wave is available. The next round of NIS data is expected in late 2009.

- Identify categories of immigrant admissions, e.g., employment-based, family-based, refugee/asylee/parolee, diversity lottery winners (called “diversity” in this report), and legalizing immigrants (see Appendix E for definitions).
- Distinguish between legal immigrants who are *new arrivals*, meaning those who obtained LPR status while still abroad, and *status adjusters*, those who obtained LPR status from within the United States.³² (See Appendix F for selected demographic and socioeconomic characteristics of foreign-educated LPRs by admission class and place of birth).

The NIS analysis strongly reinforced the ACS-based finding that where highly skilled immigrants received their education—in the United States versus abroad—made a big difference in how they fared in the US labor market (see Figure 3).³³ More than a quarter (27.4 percent) of foreign-educated LPRs were not employed before coming to the United States.³⁴ At the time of the NIS interview, the share of foreign-educated LPRs who were not employed had increased to 42.6 percent; meanwhile, only 20.2 percent held high-skilled jobs as compared to 38.4 percent prior to their entry into the United States.³⁵ These labor-market results are in sharp contrast to those of US-educated highly skilled LPRs: only 21.5 percent were not employed and 59.0 percent worked in high-skilled occupations at the time of the NIS interview.

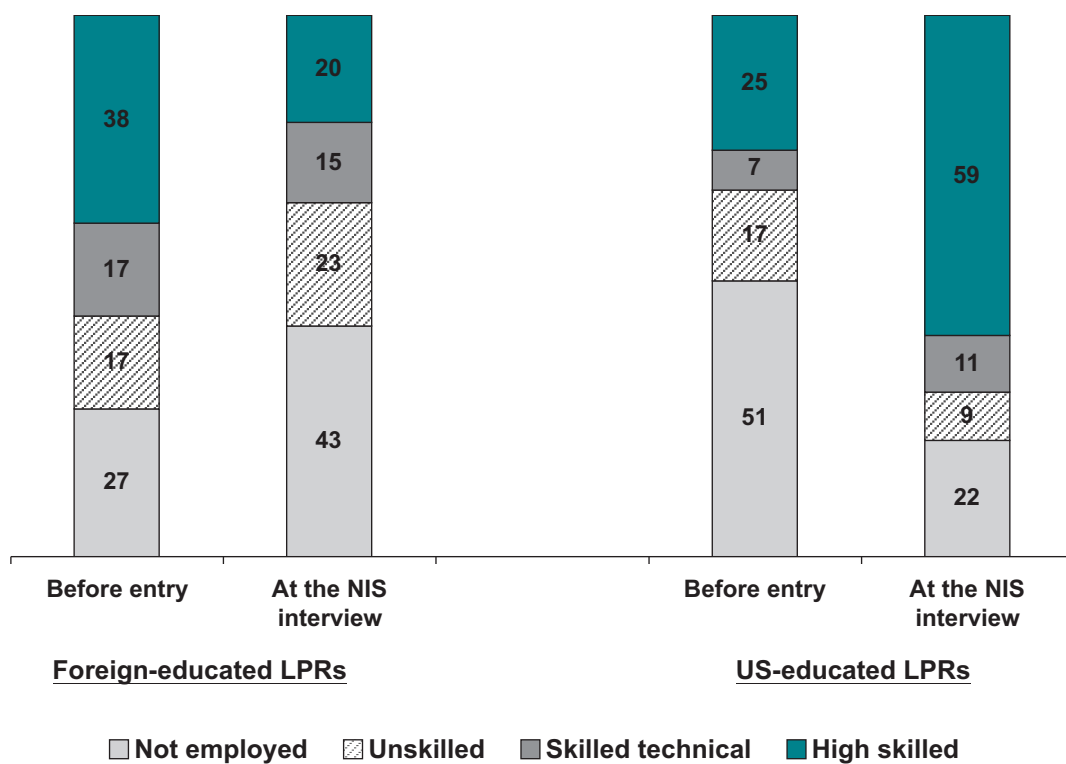
These findings strongly indicate that having a US degree provided a boost both in terms of gaining employment and securing a job that matched one’s qualifications. Several factors might explain the difficulties LPRs experienced in securing a job consistent with their education and skills. These factors include English proficiency and time spent in the United States, personal choices and family demands, the degree of cross-country transferability of one’s profession, access to professional networks, nonrecognition of foreign academic or professional credentials, discrimination, and legal status. We will explore some in greater detail later in the paper.

“Quality of Job” Index

To develop a more refined sense of the skill utilization of foreign-educated LPRs, we created a “Quality of Job” index that captures relative occupational status of different groups over

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32. “New arrivals” refers to LPRs who received their permission for permanent settlement in the United States at a US embassy in their home country. In contrast, “status adjusters” are immigrants who received their permanent residency from *within* the United States after spending some time in the United States on temporary nonimmigrant visas. We have to note a potential caveat regarding the new arrival versus status adjuster classification: the place where a person received approval for a green card. In fact, new arrivals might have visited, studied, or worked in the United States before getting a green card. However, the “new arrival” status does imply lack of continuous presence in the United States.
33. “Country where one’s degree received” refers to the country of the *highest* degree received. Also, unlike ACS, the NIS data allowed us to identify the place of one’s education directly, rather than using a proxy.
34. Not employed is defined here as being either out of the civilian labor force or unemployed.
35. For definitions of occupations by skill type, see Table 1.

**Figure 3. Share of Foreign- and US-Educated LPRs by Occupation/Employment Status:
Before Entry to the United States and At the Time of the NIS Interview, 2003**



Note: Percentages may not add to 100 because of rounding.
Source: MPI analysis of 2003 NIS.

time.³⁶ Each respondent received an average score on a scale where 1 means “employed in an unskilled job,” 2 means “employed in a skilled-technical job,” and 3 means “employed in a high-skilled job.” We measured outcomes at three points in LPRs’ migration history: their “last job abroad,” “first US job,” and “current US job.” The lower the score, the more likely it was that a person was employed in an unskilled job during a given time period. Alternatively, the higher the score, the more likely it was for a person to be employed in a highly skilled job. Figure 4 depicts the transition over time by class of admission; figure 5 presents these patterns by region of birth.

As expected, immigrants whose admission was based on an employment offer saw little change in the quality of their job abroad and their first US job and then little change going forward in the United States (see Figure 4).

For all other admission categories, however, there was a decline following migration and a subsequent rise in job quality. The decline was deeper for refugees and diversity immigrants than for family migrants, who often can count on relatives to assist in the integration process. Moreover, the improvement experienced with time spent in the United States did not bring nonemployment-based immigrants back to the same level of work as their last job prior to migration. And again, refugees and diversity immigrants fared worse than family migrants. Other researchers³⁷ have found similar patterns across various classes of admission both in the United States and in Australia, which relies on a points-based immigration policy to select highly skilled foreigners.

We further deconstructed both employment and family immigrants into status adjusters versus new arrivals. We found that status adjusters had better relative outcomes over time than new arrivals—in part owing to their greater experience in the US labor market.

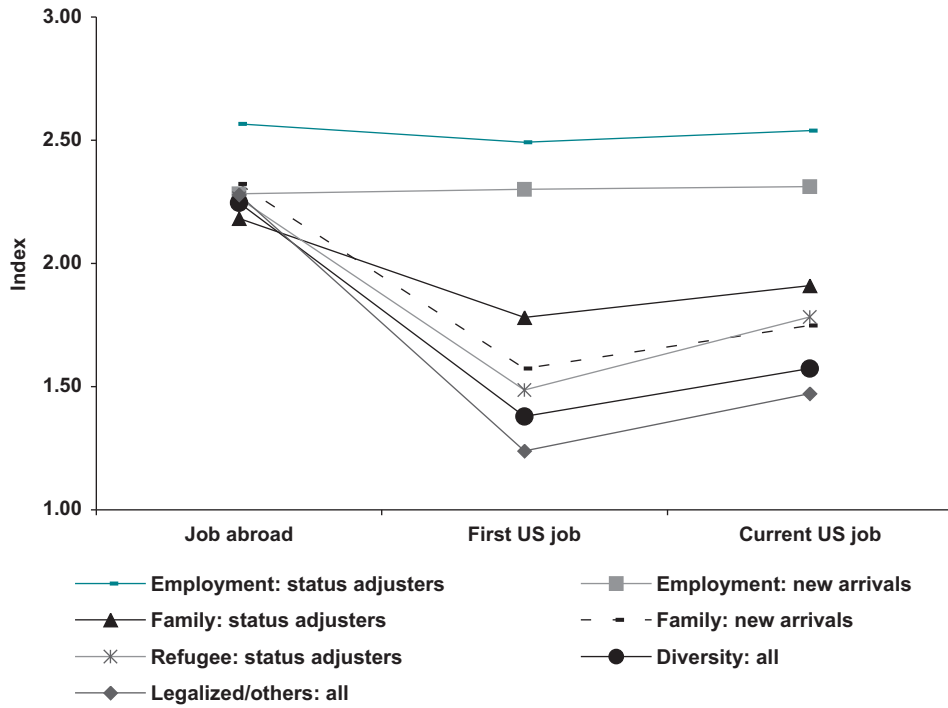
Figure 5 shows that highly educated LPRs from the four origin regions held jobs of roughly equivalent quality before migrating to the United States. However, outcomes diverged following arrival. We observed the steepest declines in job quality among the foreign-educated from Africa and Latin America. Job quality rose for both groups with more time in the United States, but outcomes substantially lagged those of their European and Asian counterparts.

The better outcomes of European and Asian LPRs are most likely attributable to their higher levels of education and higher proficiency in English. According to the NIS data, 45.4 percent of foreign-educated European LPRs had an advanced degree and 67.9 percent spoke English “well” or better. Among foreign-educated Asians, 77.1 percent spoke English “well” or better (see Appendix F.2). Despite Africans’ higher levels of education (almost a quarter had an advanced degree and more than eight in ten reported speaking English “well” or better), they experienced a drop in job quality after arrival. They also experienced the fastest rise in occupational status between first and current US jobs. With nearly a third of African-born college-educated immigrants coming on diversity visas and another 42 percent through

36. In this section we focus only on LPRs with foreign education because the sample size of US-educated LPRs was too small.

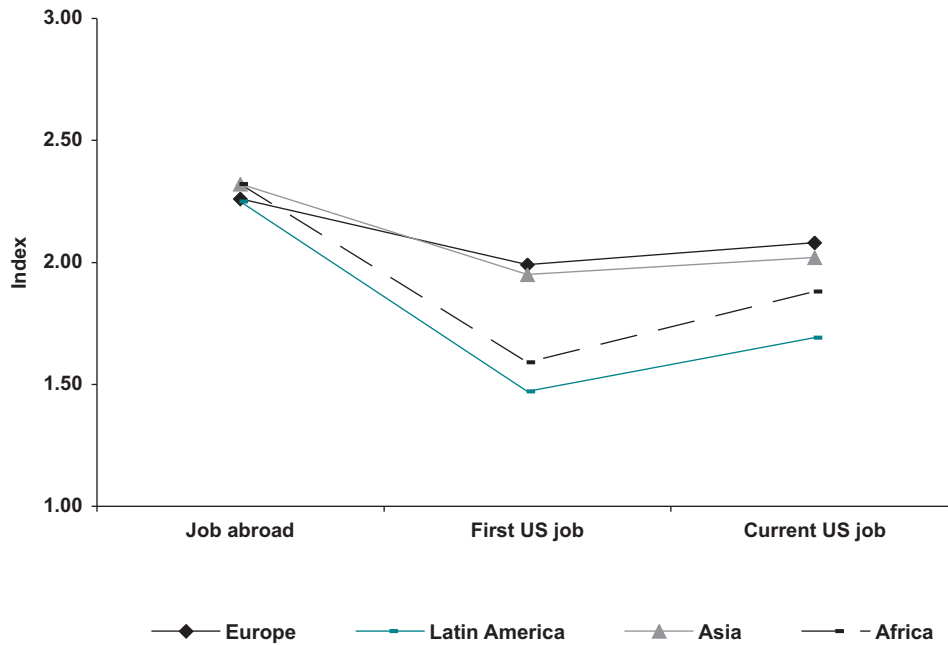
37. Akresh, “Occupational Trajectories of Legal US Immigrants”; Chiswick et al., “Patterns of Immigrant Occupational Attainment.”

Figure 4. Occupational Transitions by Admission Category: Foreign-Educated LPRs with a Bachelor's Degree or Higher, Age 25 and Older, 2003



Source: MPI analysis of 2003 NIS.

Figure 5. Occupational Transitions by Region of Birth: Foreign-Educated LPRs with a Bachelor's Degree or Higher, Age 25 and Older, 2003*



Notes: *"Europe" refers to Europe, Canada, Oceania, and Central Asia, while "Africa" includes the Middle East.
Source: MPI analysis of 2003 NIS.

family reunification, these immigrants might take longer in converting their foreign-earned human capital in the US labor market.

A note of caution is in order. Given the short span of the available NIS data (i.e., information was collected only in one data point, in 2003), we have to be careful about interpreting the results. Our preliminary findings indicated that employment-based immigrants and those from Europe were doing significantly better than the other respective groups. However, we need to analyze the trends over time before coming to firmer conclusions about these groups' differences in labor-market performance and what drives the differences. In other words, we need data over a longer period of observation to establish whether these trends persist or converge. For example, past research (some now fairly dated) found that while employment-based immigrants initially obtained higher-status occupations and higher earnings than family immigrants, the two groups' labor-market outcomes converged over time.³⁸ The next wave of NIS data, expected in late 2009, will provide us with a better picture about the different groups' paths to economic integration.

38. Elaine Sorensen, Frank Bean, Leighton Ku, and Wendy Zimmermann, *Immigrant Categories and the US Job Market: Do They Make a Difference?* (Washington, DC: The Urban Institute Press, 1992).

CHAPTER 5

AMERICAN COMMUNITY SURVEY VERSUS THE NEW IMMIGRANT SURVEY: TELLING CONSISTENT STORIES

Before discussing the implications of our findings from the two different datasets, we briefly compared the results (Tables 6 and 7). In sum, we found substantial consistency between the results. Both revealed varying access to quality jobs by sending region. The foreign-educated from Europe/Canada/Oceania and Asia were much less likely to be in unskilled jobs, followed by those from Africa and Latin America.

It is significant and worth highlighting that both datasets showed that Latin American immigrants lagged their counterparts from other regions. Recall that NIS only interviewed legal immigrants as identified from government records while there was no filtering of respondents in ACS by legal status. Hence, the similarity of results means that the presence of unauthorized migrants among the highly skilled is not a determining factor in explaining the negative outcomes observed in both datasets.

In addition, we found that foreign-educated NIS respondents were somewhat more likely than ACS respondents to be in unskilled jobs regardless of region of birth. When we compared NIS respondents to ACS respondents who came in the last ten years, the gap narrowed but persisted (see Table 3). Given that nearly 48 percent of NIS respondents were recent arrivals, having come to the United States in 2003 or 2004, this gap is not surprising.

Both surveys indicated that job quality rose over time for all immigrants. All NIS respondent groups gained access to higher-quality jobs between their first US and current US jobs. The ACS data told a similar story: immigrants arriving before 1995–1996 were less likely to be in unskilled jobs than their more recently arrived counterparts.

TABLE 6. OCCUPATIONAL STATUS OF THE COLLEGE-EDUCATED EMPLOYED PERSONS, 2005–2006*

| American Community Survey, 2005–2006 | | | | | | | |
|---|-----------------------------|---|--------|---------------|------|--------|---------|
| | College-educated immigrants | Place of birth of foreign-educated immigrants | | | | | US born |
| | | Total | Europe | Latin America | Asia | Africa | |
| Occupational distribution (current occupation) | | | | | | | |
| Percent in high skilled | 56.1 | 52.6 | 60.4 | 35.9 | 56.3 | 48.2 | 60.3 |
| Percent in skilled technical | 22.3 | 22.5 | 21.5 | 24.4 | 21.9 | 23.7 | 22.0 |
| Percent in unskilled | 21.6 | 24.9 | 18.1 | 39.7 | 21.8 | 28.1 | 17.7 |

Notes: *Refers only to college-educated employed persons in the US civilian labor force age 25 and older, excluding the self-employed. “College-educated immigrants” include both foreign- and US-educated immigrants. “Foreign educated” are defined as immigrants with a bachelor’s or higher degree who came to the United States before age 25. “Europe” refers to Europe, Canada, and Oceania.

Source: MPI analysis of 2005–2006 ACS.

TABLE 7. OCCUPATIONAL STATUS OF COLLEGE-EDUCATED EMPLOYED LPRS AT THREE POINTS IN TIME, 2003*

| New Immigrant Survey | | | | | | |
|--|-----------------------|---|--------|---------------|------|--------|
| | College-educated LPRs | Place of birth of foreign-educated LPRs | | | | |
| | | Total | Europe | Latin America | Asia | Africa |
| Occupational distribution (occupation abroad) | | | | | | |
| Percent in high skilled | 52.6 | 52.9 | 50.2 | 51.1 | 54.7 | 54.5 |
| Percent in skilled technical | 22.9 | 23.9 | 26.3 | 23.0 | 23.0 | 22.7 |
| Percent in unskilled | 24.5 | 23.2 | 23.5 | 25.9 | 22.3 | 22.9 |
| Occupational distribution (first US occupation) | | | | | | |
| Percent in “high skilled” | 35.5 | 30.8 | 39.7 | 16.6 | 34.8 | 19.1 |
| Percent in skilled technical | 18.9 | 21.5 | 19.5 | 14.0 | 26.3 | 21.1 |
| Percent in unskilled | 45.6 | 47.7 | 40.8 | 69.4 | 38.9 | 59.8 |
| Occupational distribution (current US occupation) | | | | | | |
| Percent in high skilled | 43.7 | 35.2 | 42.8 | 21.8 | 37.6 | 31.2 |
| Percent in skilled technical | 22.8 | 25.3 | 22.9 | 25.7 | 26.8 | 25.2 |
| Percent in unskilled | 33.5 | 39.5 | 34.3 | 52.5 | 35.6 | 43.6 |

Notes: *Foreign- and US-educated legal permanent residents (LPRs). “Europe” refers to Europe, Central Asia, Canada, and Oceania, while “Africa” includes the Middle East.

Source: MPI analysis of 2003 NIS.

CHAPTER 6

CONCLUSION

To recap, our research shows that foreign-educated immigrants overall (ACS data) and legal permanent immigrants in particular (NIS data) had varying outcomes in terms of occupational mobility. These outcomes depended on immigrants' origin, English ability, time spent in the United States, and place of education.

Nationwide, highly educated European and Asian immigrants were doing better than those from Latin America and Africa. Rising job quality among all groups over time makes it clear that those who have been in the United States longer were able to leverage the acquired experience and networks to achieve higher quality occupational status. Moreover, our NIS analysis shows that nearly all foreign-educated immigrants regardless of sending region or admission status (except employment based) experienced a U-shaped pattern of occupational mobility. These findings have implications for immigrant-integration policies, including credentialing and language training, and immigration policy.

Integration Policies

The data we present here suggest that two important factors contribute to the underutilization of high-skilled immigrant workers: nonrecognition of foreign academic and professional credentials and limited English proficiency.

Credentialing

Researchers in other countries have tried to assign a cost to the limited transferability of education and skills acquired abroad. Australia estimated it had incurred a “loss” of AU\$100 million to AU\$350 million because it did not recognize foreign degrees for some 200,000 immigrants in 1990.³⁹ It is estimated that the economic impact of immigrant skill underutilization in Canada amounts to CAN\$2 billion annually.⁴⁰ We are not aware of similar estimates for the United States.

39. Andrew Brouwer, *Immigrants Need Not Apply* (Ottawa: Caledon Institute of Social Policy, October 1999), <http://maytree.com/policy-library/publications>.

40. Jeffrey Reitz, “Does Canadian Experience in Immigrant Integration Have Lessons for Europe?” (keynote address, Third Annual Conference of the International Migration, Integration, and Social Cohesion Network, Vienna, September 5, 2006).

This “discounting” of foreign credentials has been recognized as a serious problem by policymakers who have pushed for changes in credentialing and immigrant admission systems.⁴¹ Countries with effective credential-recognition systems succeed on two counts: they are more attractive to prospective immigrants, and they make better use of their skills.⁴²

There are several examples of initiatives that promote credential recognition. The European Union (EU), under the Bologna Process, has committed itself to harmonizing the recognition of degrees, study periods, and academic grades across its Member States. Canada has an Alliance of Credential Evaluation Services of Canada—a national umbrella organization that seeks to standardize provincial credential evaluation assessment services. The United Kingdom has created the National Academic Recognition Information Centre (NARIC), which assists immigrants in validating their degrees once they are in the country. Based on a government-commissioned study, which found long-term underemployment due to nonrecognition of skills, Australia has gone a step further.⁴³ Immigrants applying under its points system must get their overseas qualifications, skills, or experience confirmed by an Overseas Qualification Unit, which can be found in most Australian states and territories, before immigration authorities even consider their applications for permanent settlement. The assessment usually takes about three months.

By contrast, the US government takes a laissez-faire approach to this matter as there are no nationally established standards for assessing educational credentials obtained abroad.⁴⁴ This hands-off approach is partially attributable to the fact that much of the legal and institutional authority to recognize and validate education and professional credentials lies at the state- and local-government levels and within private groups and professional associations. What is missing in the United States is a national-level coordination of the activities and standards applied by these various groups.

A recent report by Creticos and colleagues provided an overview of institutional reforms that would improve the process of recognizing the educational and professional credentials of highly skilled immigrants.⁴⁵ The current approach that many public and private bodies in the United States take typically assumes that other countries’ educational and training programs are inferior. As a result, internationally trained candidates must assume the burden of proving that their coursework or skills should be accepted.

There are a number of paths that policy might take when it comes to credentialing. One path would be to promote international accreditation that would streamline the cross-country

41. Bob Birrell, Leslyanne Hawthorne, and Sue Richardson, *Evaluation of the General Skilled Migration Categories* (Canberra: Commonwealth of Australia, 2006), <http://www.immi.gov.au/media/publications/research/gsm-report/index.htm>.

42. Papademetriou et al., *Points Systems*.

43. Leslyanne Hawthorne, *The Impact of Economic Selection Policy on Labour Market Outcomes for Degree-Qualified Migrants in Canada and Australia* (Montreal: Institute for Research on Public Policy, 2008).

44. Peter Creticos, Michael Fix, Jeanne Batalova, Amy Beeler, and Rob Paral, *Employing Foreign-Educated Immigrants, A Report to the Joyce Foundation* (Chicago: Institute for Work and the Economy, 2007), <http://www.workandeconomy.org/Employing%20Internationally%20Educated%20Final.pdf>.

45. Ibid.

transferability—an ideal solution, if perhaps far-fetched in reality. Another approach would be the one adopted by Australia, which, as noted, makes assessment of overseas credentials a premigration requirement for its points-tested immigrants. A third possible approach, which may be the best fit for the highly devolved US policy, would be to look to Canada’s mix of coordination and funding strategies that facilitates cooperation between different stakeholders (see Box 1).

These policies might make it easier for internationally educated workers to validate their credentials by (a) assuring greater cooperation between state workforce agencies and other institutions (state licensing agencies, professional associations, universities, employers, and community-based organizations); (b) providing more information on how to navigate the credentialing and job-search process; and (c) offering bridge training to help foreign-educated workers fill in the gaps in their education, skills, and language training. These investments, then, could limit the waste of human capital, raising immigrants’ productivity, earnings, and tax contributions.

This approach also implies a greater involvement on the part of the US business community. Employers need to become more educated about the skills and training immigrants bring with them and become more proactive in the recruitment, employment, and retention of immigrant workers. It is understandable that not all employers have the necessary expertise and resources to assess the validity and quality of foreign applicants’ training. To share the costs and best practices of credentials assessment, employer associations and/or government agencies (e.g., the departments of Labor, Commerce, and Education) could step forward to create partnerships with workforce development agencies, credentials assessment services, universities, and other stakeholders.⁴⁶

Language and Workforce Training

Fluency in the host language also influences immigrants’ labor-market outcomes. Our research reveals that regardless of place of birth, workers with limited English skills are twice as likely to work in unskilled occupations as their English-proficient counterparts.

Many countries have incorporated language proficiency into their immigrant selection systems, thereby limiting admission of those with low host-language skills. Australia, for example, awards up to 25 points to those who are fluent in English out of a total of 120 points necessary to pass an admission points test.⁴⁷ Canada and the United Kingdom, which view fluency in the host language/s as one of the best predictors of successful integration and improved work outcomes have similar provisions.⁴⁸ Since 2006, the Netherlands has required

46. Elizabeth Collett and Karolina Sitek, *Making Migration Work: The Role of Employers in Immigrant Integration* (Brussels: European Policy Center, 2008).

47. This example refers to immigrants applying under the Skilled Independent Migrant visa category. To establish English proficiency, almost all prospective immigrants have to take an International English Language Testing System (IELTS) test that assesses their speaking, reading, listening, and writing English abilities. See Papademetriou et al., *Points Systems*.

48. Hawthorne, *The Impact of Economic Selection Policy*.

Box I. Promising Examples of Integration Programs for Highly Skilled Immigrants in Canada

In 2003, after several rounds of consultations among a broad range of stakeholders, the Canadian federal government launched an Internationally Trained Workers Initiative (ITWI). The initiative sought to improve the speed and accuracy of foreign-credential recognition of internationally trained professionals (Canadian or foreign) and to offer language training and mentorship/internship programs to high-skilled immigrants. Three particularly relevant ITWI programs are:

Foreign Credential Recognition (FCR) Initiative

In 2003–2004 the Canadian Government provided CAN\$68 million (for six years) to create the Foreign Credential Recognition (FCR) program.⁴⁹ Through this initiative, the federal government works with provinces, territories, regulatory bodies, employer groups, unions, universities, sector councils, and other partners to develop fairer and more accessible recognition processes for highly skilled immigrants.

Enhanced Language Training (ELT) Initiative

The Enhanced Language Training (ELT) initiative aims to increase the language ability of immigrants to both obtain and remain in jobs for which they have training and experience.⁵⁰ In 2003–2004, the Canadian government announced CAN\$20 million in annual funding for the initiative to deal with newcomers' lack of technical language and workplace communication skills.

Under the ELT program, the government enters into cost-sharing partnership agreements with provinces, territories, nongovernmental organizations, employers, educational institutions, and community agencies serving immigrants, among others. Moreover, ELT projects must also include a Bridge to Work component to assist in internship experience, temporary or permanent work placement, mentorship programs to develop networks in the chosen area of employment, or assistance in professional licensure and job searches.⁵¹

Labor Market Information

The goal of this online tool is to provide up-to-date, targeted information to foreign-trained workers about available jobs at various geographical locations, including job descriptions, salaries, duties, requirements, and places to obtain training.⁵² The website further provides information about local economies and labor markets, including unemployment rates, economic trends, and community information such as demographics, educational institutions, medical facilities, etc.

49. See Human Resources and Social Development Canada, “Foreign Credential Recognition,” http://www.hrsdc.gc.ca/en/workplaceskills/credential_recognition/index.shtml.

50. See Human Resources and Social Development Canada, “Enhanced Language Training,” <http://www.hrsdc.gc.ca/en/cs/comm/hrsd/news/2005/050425ba.shtml>.

51. See “Going to Canada,” <http://www.goingtocanada.gc.ca>.

52. See “Labour Market Information,” <http://www.labourmarketinformation.ca/>.

prospective family-based immigrants to pass a Dutch-language test before entering the country.⁵³ In contrast, the United States does not consider English proficiency in granting immigrant admissions for employment and other visas. Ultimately, the English proficiency decisions are up to the employer's judgment in both visa sponsorship and hiring of those who are already in the country.

A recent MPI report analyzed the current structure and scale of the adult education system, which supports English classes for adults. The report found that the system does not adequately meet the English-learning needs of immigrants.⁵⁴ The authors noted the disjointed character of language learning and workforce training programs that often force newcomers to first learn English and only then enroll in workforce-training programs. The results are high attrition rates and underenrollment of limited English proficient workers in training programs.

The authors suggested two institutional reforms: integrating the disconnected fields of workforce development and language learning, and making better use of distance and anytime-anywhere learning strategies.⁵⁵ Many foreign-trained professionals, who might need only a few credits to fulfill the educational requirements for their licensing and professional exams, would benefit from fast-track and affordable programs developed in cooperation with employer groups, professional and trade associations, and colleges and universities.⁵⁶

Learning English per se might not be enough as employers also seek technical language and workforce communication skills. Again, comparative experience can be useful. Canada's Bridge to Work (see Box 1) aims to promote simultaneous learning of the language (general and technical) and work and communication skills. The goal is to help newcomers obtain and retain jobs that pay well and are consistent with their qualifications. Internship and mentorship programs funded by the federal and local governments that bring together employees and employers seem to pay off: 80 percent of immigrants who took advantage of mentorship programs and 75 to 80 percent of former interns found full-time employment in their chosen fields.⁵⁷

Other Barriers

Lack of basic information on the services that are already available to immigrant professionals, poor job interviewing skills, limited professional networks and familiarity with US business culture, and discrimination by employment agencies and employers create

53. Chavi Keeney Nana, "With Strict Policies in Place, Dutch Discourse on Integration Becomes More Inclusive," *Migration Information Source*, April 2007, <http://www.migrationinformation.org/Feature/display.cfm?id=596>.

54. Margie McHugh, Julia Gelatt, and Michael Fix, *Adult English Language Instruction in the United States: Determining Need and Investing Wisely* (Washington, DC: Migration Policy Institute, 2007).

55. Ibid.

56. Creticos et al., *Employing Foreign-Educated Immigrants*.

57. New Profit Inc., *Canada Market Research for Upwardly Global* (unpublished research paper, 2008). The study provides a research overview of nonprofit and for-profit vendors that work to address immigrant professional employment in Canada.

additional impediments to immigrants' progress in the workplace. In the absence of coordinated initiatives in the United States, a small number of nongovernmental organizations are addressing immigrants' barriers to economic mobility. Two of the best known—Upwardly Global and Welcome Back—are described in Box 2.

Box 2. Upwardly Global and Welcome Back

Upwardly Global assists foreign-trained professionals who are legal permanent residents to develop job-search skills, write US-style resumes, sharpen interviewing skills, and get their credentials validated by credentialing evaluation organizations such as World Education Services. Upwardly Global also works with private- and public-sector companies to address the concerns they might have regarding immigrant workers' qualifications, English skills, adaptability, etc. by bringing immigrant workers and employers together through mentorship programs, job fairs, and information-sharing sessions. Initially based in San Francisco, Upwardly Global has recently expanded its services to New York City and plans to launch an office in Chicago.⁵⁸ It is supported by a number of social investors, private companies, and individuals.

Welcome Back aims "to build a bridge between the pool of internationally trained health workers living in California and the need for linguistically and culturally competent health services in underserved communities."⁵⁹ The three offices in San Diego, Los Angeles, and San Francisco offer orientation, counseling, and educational programs. Their services include evaluation and assistance in obtaining appropriate licenses, credentials, orientation and job placement in the US health-care system. Welcome Back is supported by a grant from The California Endowment.

Universal Approach

Successful policy interventions, especially at the state and local levels, can be directed toward populations other than immigrants. Workers from other states as well as prospective workers (e.g., those being discharged from the armed forces, women returning to work, former inmates, and welfare recipients) are likely to struggle to overcome many of the same barriers as their immigrant counterparts if information on licensing and other job requirements is not well-publicized or if the workforce-training programs are unavailable or of low quality. The universal approach has another advantage—greater public confidence in, and support for, for the investments made.

One example of such a broadly targeted program is Minnesota's one-stop portal that provides information on more than 500 licenses (professional, business, or vehicle)

58. See <http://www.upwardlyglobal.org/>.

59. See <http://www.welcomebackcenter.org/>.

administered by 40 state agencies.⁶⁰ In most other states, licensing information is still located on the websites of many different licensing agencies.⁶¹

Immigration Policy

Transitional Temporary-to-Permanent Visas

As discussed above, characteristics such as language skills and transferrable degrees matter a great deal in the incorporation of high-skilled immigrants into the US labor market. Our finding that foreign-educated status adjusters (regardless of the class of admission) secure employment in higher-quality jobs relative to their newly arriving counterparts lends support to arguments in favor of transitional visas.⁶² As proposed by MPI's Task Force on Immigration and America's Future, these would be three-year, renewable visas that would allow US employers to recruit high- and certain low-skilled workers to work in permanent or year-round jobs, with an opportunity for employer or, under some circumstances, immigrant sponsorship for permanent immigration in the future.⁶³ In other words, these visas would provide an opportunity for both employers and prospective foreign workers to "test the waters" in the US labor market and society. The successful trajectories of status adjusters that the NIS data documented suggest that these probationary permanent visas would likely pay off substantially.

Immigration and Labor Markets

Another MPI Task Force recommendation—the call for a Standing Commission on Labor Markets and Immigration—might also help reduce future brain waste. The task force recommended creating an independent federal agency that would make regular recommendations to Congress for adjusting admission levels in the temporary, probationary, and permanent immigration streams based on evidence of local and regional labor-market needs, trends, worker-supply chains, and the effects of recent immigration flows. Matching admissions to regional labor-market demand could lead to lower levels of unemployment and skill underutilization among high-skilled workers.

Again, other countries seem to be at the forefront of similar policy interventions. The Australian Department of Education, Employment, and Workplace Relations semiannually reviews the Migration Occupations in Demand List (MODL) for occupations identified "as being in national demand with sustained employment prospects."⁶⁴ Chemical engineers,

60. "License Minnesota," <http://www.state.mn.us/portal/mn/jsp/home.do?agency=LicenseMN>.

61. Creticos et al., *Employing Foreign-Educated Immigrants*.

62. Doris Meissner, Deborah Meyers, Demetrios Papademetriou, and Michael Fix, *Immigration and America's Future: A New Chapter* (Washington, DC: Migration Policy Institute, 2006).

63. Foreign nationals who arrive in the United States for nonemployment reasons (e.g., fiancées of US citizens and victims of trafficking) and are likely to eventually adjust to permanent status already have an option of receiving such a visa though it is not called provisional.

64. See the Australian Workplace website at <http://www.workplace.gov.au/workplace/Aboutthissite.htm>.

accountants, and surgeons, as well as plumbers, bakers, and stonemasons, were on this list as of May 2008.⁶⁵ Once the relevant credentials are approved for the occupation listed on MODL, a prospective skilled migrant can get up to 20 bonus points toward admission under the Australian points system.

Another example is the Migration Advisory Committee (MAC), created in the UK in late 2007.⁶⁶ This independent committee—consisting of five economists and two ex-officio members—has the mandate to advise the UK government on labor-market shortages and to develop the list of shortage occupations. MAC seems to be a concrete policy response tying immigration flows to the needs of the UK economy. One metric of such an agency’s success would be reduced skill underutilization among high-skilled newcomers. If adopted in the United States, our estimate of the 1.3 million underutilized immigrants might be used as a baseline for future projections of employment-based admission levels.

65. For the entire MODL, see <http://www.immi.gov.au/skilled/general-skilled-migration/skilled-occupations/occupations-in-demand.htm#oppt>.

66. See the UK Home Office’s description of the purpose and structure of the Migration Advisory Committee at <http://www.ind.homeoffice.gov.uk/aboutus/workingwithus/indbodies/mac/>.

CHAPTER 7

FUTURE RESEARCH AGENDA

Our research highlights the different routes toward economic incorporation open to highly skilled immigrants. The course these immigrants take depends on their origins, human capital and the place they acquired it, and language skills. Existing institutional structures and barriers also affect their pathways. The findings make clear that brain waste is a real problem in the United States: the economic integration of more than 1.3 million highly skilled immigrants is unnecessarily slow because they are either not employed or work in unskilled occupations. Given the lack of empirical and theoretical knowledge, not to mention well-coordinated US policies that address skill underutilization, we view our research as a first step toward gaining an understanding of the brain-waste phenomenon. In this final section, we propose a few promising topics for future research.

Quantifying the costs to the national and state economy, and to educated immigrants themselves, of long spells in unskilled jobs. More than one in five college-educated immigrants worked as babysitters, telemarketers, dishwashers, cab drivers, and in other unskilled jobs that were well below the qualifications they brought to the US labor market. Both Australian and Canadian researchers have attempted to quantify the losses their economies incur because of immigrants' skill underutilization. We are not aware of similar research that examines the impacts on the US economy or US immigrant workers. We believe that putting a dollar value on this brain waste will not only give us a better understanding of the financial costs of ignoring the issue but also put pressure on policymakers to take steps to find the needed solutions.

Determining the scope of discrimination in the hiring of highly skilled immigrant workers. We find that even after controlling for level of education, tenure in the United States, and language proficiency, both foreign- and US-educated immigrants from Africa are more likely to be unemployed than natives. The nativity gap for other nonwhite groups is also larger than the gap between natives and European immigrants. Having a US degree reduces the nativity gap slightly for immigrants from Asia, Latin America, and Africa but makes the nativity difference statistically insignificant in the case of European-born peers.

Of course, despite our efforts to control for all possible reasons for higher unemployment rates, many other factors are not accounted for. The extensive literature on discrimination might inform our results. Though racial discrimination in the labor market remains a lingering issue, it is a difficult subject to study empirically. We propose conducting a pilot study on hiring discrimination directed at highly skilled immigrants, especially those who are on temporary visas and not white. Employing a powerful, cost-effective technique called

resume testing, researchers can identify the degree racial discrimination plays in skill underutilization.

Investigating the impacts of the double brain loss incurred by developing countries. As we discussed, brain waste is a serious issue for host societies. However, brain waste coupled with brain drain represents the worst possible outcome for developing countries. In addition to losing their skilled citizens, these countries likely also forgo future financial contributions in the form of remittances and valuable knowledge and networks that their diaspora accumulates and can share. One promising topic for researchers and policymakers in the migration and development field would be to examine the effects of credential nonrecognition in the origin countries' economies (e.g., on remittance amounts, skills of returning migrants). Another potential research topic would be to explore policy solutions that address nonrecognition of foreign credentials from the point of view of developing countries (e.g., bilateral agreements to standardize credentials).

Cataloging and disseminating effective practices and solutions to skill underutilization that various actors (governments, employers, immigrant organizations, professional associations, etc.) already use. We discussed several examples of US and other countries' programs that help highly skilled immigrant workers relaunch their careers. Developing and sharing a catalog of ideas that effectively address various aspects of skill underutilization would be an immensely valuable contribution, especially given the fact that many of these ideas might be applied to help other groups (e.g., out-of-state workers, those discharged from the armed forces, mothers returning to work, and welfare recipients) reentering the mainstream workforce.

Here is one example. A recent white paper by the Council of the Americas documented initiatives that many US businesses implemented or sponsored to promote the integration of Hispanic immigrant workers.⁶⁷ The programs included skills development, financial-literacy programs, English classes, and scholarships for higher education, among others. Although the highlighted programs mostly targeted low-skilled Hispanic immigrants and their families, they suggest that US businesses can and are recognizing their immigrant workers' potential. These proactive employers invest in their workers' human capital, which, in turn, makes these workers more valuable and more successful at the workplace. Besides enhancing a company's image, the benefits of such an approach are a larger pool of recruits, higher returns on skills and training investments due to higher retention rates, and an increased ability to serve diverse customers thanks to a diverse workforce.⁶⁸ Cataloging and disseminating best practices, along with a discussion of concrete impacts on productivity and profitability, could inspire companies to embrace the talent they already have.

67. The Americas Society and Council of the Americas, "US Business and Hispanic Integration: Expanding the Economic Contributions of Immigrants" (white paper, July 2008), <http://www.as-coa.org/files/editor/image/IntegrationWhitePaper.pdf>.

68. Collett and Sitek, *Making Migration Work*.

APPENDIX A.

OCCUPATIONAL TITLES BY REQUIRED SKILLS, EDUCATION, AND TRAINING

The Bureau of Labor Statistics (BLS) publishes data categorizing US workers' occupations by the highest level of training and education typically required by US employers:

1. First professional degree
2. Doctoral degree
3. Master's degree
4. Bachelor's or higher degree plus work experience
5. Bachelor's degree
6. Associate's degree
7. Postsecondary vocational award
8. Work experience in related occupation
9. Long-term on-the-job training
10. Moderate-term on-the-job training
11. Short-term on-the-job training

We aggregated the 11 categories of occupations into the following three groups by skill level:

- Skill levels 1 to 5 = high skilled
- Skill levels 6 to 9 = skilled technical
- Skill level 10 and 11 = unskilled

Examples of occupations in each skill-education category:

1. First professional degree: pharmacists, physicians, veterinarians, and lawyers
2. Doctoral degree: medical scientists, astronomers, psychologists, and postsecondary teachers
3. Master's degree: operations research analysts, urban and regional planners, librarians, and physical therapists
4. Bachelor's or higher degree plus work experience: farm and agricultural managers, management analysts, actuaries, and producers and directors
5. Bachelor's degree: social and community-service occupations, financial examiners, computer programmers, computer software engineers, and chemical engineers
6. Associate's degree: registered nurses, radiation therapists, nuclear technicians, dental hygienists, and computer-support specialists

-
7. Postsecondary vocational award: paramedics, licensed practical and vocational nurses, automotive service technicians, and farm equipment mechanics
 8. Work experience in related occupations: wholesale and retail buyers, purchasing agents, dancers and choreographers, construction laborers, and transportation inspectors
 9. Long-term on-the-job training: athletes and sports competitors, carpenters, electricians, air-traffic controllers, and broadcast technicians
 10. Moderate-term on-the-job training: sales representatives, customer-service representatives, secretaries, carpet installers, and rail transportation workers
 11. Short-term on-the-job training: cooks, bartenders, cashiers, telemarketers, and switchboard operators.

APPENDIX B.
DEMOGRAPHIC AND SOCIAL CHARACTERISTICS OF THE HIGHLY SKILLED, 2005–2006*

| | Foreign educated by place of birth | | | | | | | | | | | | |
|-------------------------------|------------------------------------|-----------------|---------|------------------|---------|-----------|---------|------------------|--------|-------------------------------|-----------|------------------|---------|
| | Native born | Recent arrivals | | | | Long term | | | | US educated by place of birth | | | |
| | | Europe** | Asia | Latin America | Africa | Europe** | Asia | Latin America | Africa | Europe** | Asia | Latin America | Africa |
| Number (civilian labor force) | 33,768,343 | 382,981 | 805,388 | 363,721 | 119,416 | 346,172 | 837,515 | 283,384 | 98,577 | 573,170 | 1,378,902 | 737,420 | 137,517 |
| Age (mean) | 44.2 | 39.7 | 38.6 | 39.9 | 40.0 | 52.4 | 51.9 | 51.7 | 50.9 | 42.7 | 37.9 | 39.5 | 39.6 |
| Percent male | 52.3 | 59.1 | 61.8 | 56.1 | 67.5 | 58.8 | 57.3 | 55.0 | 70.9 | 51.8 | 54.8 | 51.7 | 63.8 |
| Percent married | 66.8 | 71.4 | 80.8 | 66.9 | 72.4 | 75.2 | 84.2 | 68.8 | 76.7 | 64.1 | 69.0 | 59.9 | 64.0 |
| Percent noncitizen | - | 85.6 | 87.5 | 87.2 | 79.2 | 36.3 | 21.3 | 35.8 | 25.3 | 32.6 | 27.7 | 30.2 | 30.5 |
| Limited English proficient | 0.8 | 26.6 | 38.9 | 59.3 | 20.1 | 23.0 | 33.7 | 41.4 | 10.9 | 5.3 | 16.8 | 19.7 | 7.8 |
| Educational attainment | | | | | | | | | | | | | |
| Bachelor's degree | 64.0 | 47.3 | 52.9 | 66.0 | 63.6 | 42.9 | 55.1 | 61.8 | 50.4 | 58.4 | 58.1 | 70.4 | 60.9 |
| Master's degree | 25.0 | 32.5 | 31.3 | 19.4 | 21.6 | 31.9 | 24.3 | 20.2 | 25.5 | 26.2 | 28.1 | 20.0 | 25.6 |
| PhD/professional degree | 10.9 | 20.2 | 15.7 | 14.6 | 14.7 | 25.3 | 20.5 | 18.0 | 24.1 | 15.4 | 13.9 | 9.6 | 13.5 |

Notes: *Refers only to college-educated persons in the US civilian labor force age 25 and older, including the self-employed. **“Europe” refers to Europe, Canada, and Oceania. “Foreign educated” is defined as immigrants with a bachelor’s or higher degree who came to the United States before age 25. Among the foreign educated, “recent arrivals” are immigrants who came to the United States ten or fewer years ago, while “long term” are those who came to the United States 11 or more years ago. The term limited English proficient (LEP) refers to any person age 5 or older who reported speaking English “not at all,” “not well,” or “well” on their survey questionnaire. Persons who speak only English or who report speaking English “very well” are considered proficient in English. The higher number of LEP immigrants among US-educated Asians and Latin Americans has to do with the way the LEP variable is coded, i.e., those who report speaking English “well” are grouped with those who report “not well” and “not at all.” A more detailed breakdown of the English proficiency variable shows that the majority of the US-educated Asians and Latin Americans who were classified as LEP reported speaking English “well.”

Source: MPI analysis of 2005–2006 ACS.

APPENDIX C.
DEMOGRAPHIC AND SOCIAL CHARACTERISTICS OF EMPLOYED HIGHLY SKILLED WORKERS*
IN CALIFORNIA, ILLINOIS, MARYLAND, AND NEW YORK, 2005–2006

| | Native born | Foreign educated by place of birth | | | | US educated by place of birth | | | |
|--------------------------------------|-------------|------------------------------------|---------|---------------|--------|-------------------------------|---------|---------------|--------|
| | | Europe** | Asia | Latin America | Africa | Europe** | Asia | Latin America | Africa |
| California | | | | | | | | | |
| Number (estimate) | 2,857,903 | 101,325 | 396,254 | 67,046 | 19,213 | 83,044 | 410,281 | 126,895 | 16,869 |
| Age (mean) | 43.6 | 44.9 | 46.4 | 44.6 | 45.6 | 41.6 | 38.1 | 39.0 | 39.7 |
| Male (percent) | 51.8 | 61.8 | 54.5 | 58.2 | 69.4 | 51.6 | 51.5 | 54.0 | 54.0 |
| Married (percent) | 59.3 | 69.2 | 79.3 | 67.5 | 73.2 | 58.9 | 65.8 | 61.0 | 57.3 |
| Recently arrived (percent) | - | 52.2 | 46.2 | 50.4 | 50.0 | 14.2 | 13.3 | 9.7 | 13.6 |
| Noncitizen (percent) | - | 62.9 | 50.1 | 64.2 | 46.9 | 34.2 | 21.6 | 32.5 | 24.3 |
| Limited English proficient (percent) | 1.1 | 19.0 | 39.8 | 53.0 | 14.0 | 4.6 | 18.5 | 24.7 | 4.8 |
| Master's or higher degree (percent) | 35.7 | 54.6 | 34.9 | 35.6 | 41.6 | 41.1 | 35.9 | 25.8 | 38.7 |
| Illinois | | | | | | | | | |
| Number (estimate) | 1,351,127 | 40,006 | 73,706 | 18,437 | 5,965 | 28,144 | 62,535 | 21,252 | 3,334 |
| Age (mean) | 42.5 | 45.8 | 45.4 | 42.7 | 45.1 | 40.0 | 37.3 | 38.8 | 37.2 |
| Male (percent) | 50.8 | 55.5 | 59.1 | 57.9 | 64.5 | 49.2 | 52.6 | 55.6 | 56.2 |
| Married (percent) | 66.0 | 71.3 | 83.4 | 61.8 | 81.7 | 62.0 | 70.9 | 60.9 | 51.1 |
| Recently arrived (percent) | - | 53.1 | 51.1 | 62.2 | 51.6 | 21.9 | 23.7 | 13.3 | 29.4 |
| Noncitizen (percent) | - | 57.1 | 51.0 | 73.1 | 56.5 | 28.4 | 34.1 | 32.7 | 24.8 |
| Limited English proficient (percent) | 0.7 | 42.5 | 32.5 | 53.8 | 15.9 | 10.2 | 15.5 | 29.9 | 6.8 |
| Master's or higher degree (percent) | 36.4 | 55.0 | 48.3 | 36.8 | 51.7 | 35.3 | 45.7 | 25.2 | 36.4 |
| Maryland | | | | | | | | | |
| Number (estimate) | 717,732 | 15,418 | 43,874 | 10,451 | 19,204 | 11,300 | 32,277 | 15,494 | 9,684 |
| Age (mean) | 44.0 | 45.3 | 45.3 | 45.7 | 44.3 | 42.3 | 38.5 | 38.4 | 39.2 |
| Male (percent) | 49.0 | 51.5 | 58.3 | 54.4 | 67.9 | 49.7 | 55.2 | 43.1 | 59.0 |
| Married (percent) | 65.6 | 74.1 | 85.9 | 68.8 | 66.5 | 62.4 | 72.9 | 53.9 | 73.2 |
| Recently arrived (percent) | - | 51.8 | 51.9 | 55.2 | 54.1 | 16.1 | 20.0 | 10.1 | 15.8 |
| Noncitizen (percent) | - | 60.6 | 50.7 | 63.0 | 55.8 | 28.8 | 26.9 | 27.1 | 41.0 |
| Limited English proficient (percent) | 0.8 | 21.0 | 34.6 | 39.1 | 15.4 | 5.6 | 17.1 | 10.9 | 7.3 |
| Master's or higher degree (percent) | 43.8 | 72.0 | 57.6 | 44.5 | 42.3 | 52.1 | 54.7 | 39.6 | 42.5 |

(continues)

APPENDIX C. (continued)
 DEMOGRAPHIC AND SOCIAL CHARACTERISTICS OF EMPLOYED HIGHLY SKILLED WORKERS*
 IN CALIFORNIA, ILLINOIS, MARYLAND, AND NEW YORK, 2005–2006

| | Native born | Foreign educated by place of birth | | | | US educated by place of birth | | | |
|--------------------------------------|----------------|------------------------------------|---------|------------------|--------|-------------------------------|---------|------------------|--------|
| | | Europe** | Asia | Latin America | Africa | Europe** | Asia | Latin America | Africa |
| New York | | | | | | | | | |
| Number (estimate) | 1,949,575 | 97,630 | 123,704 | 75,476 | 20,054 | 65,637 | 111,694 | 112,385 | 11,520 |
| Age (mean) | 42.8 | 45.2 | 45.2 | 47.2 | 45.1 | 40.3 | 36.7 | 39.4 | 40.7 |
| Male (percent) | 48.7 | 54.2 | 55.1 | 47.3 | 70.6 | 47.9 | 53.6 | 42.2 | 67.5 |
| Married (percent) | 57.9 | 66.7 | 78.1 | 59.2 | 72.4 | 58.6 | 60.2 | 50.2 | 56.2 |
| Recently arrived (percent) | - | 51.0 | 48.2 | 42.5 | 48.1 | 14.2 | 17.5 | 7.8 | 16.3 |
| Noncitizen (percent) | - | 57.4 | 54.0 | 47.7 | 55.4 | 29.8 | 28.8 | 21.9 | 30.6 |
| Limited English proficient (percent) | 1.0 | 35.7 | 38.1 | 37.4 | 16.3 | 8.4 | 19.1 | 13.9 | 13.8 |
| Master's or higher degree (percent) | 43.4 | 54.6 | 44.5 | 35.1 | 46.4 | 44.8 | 39.7 | 32.6 | 32.5 |

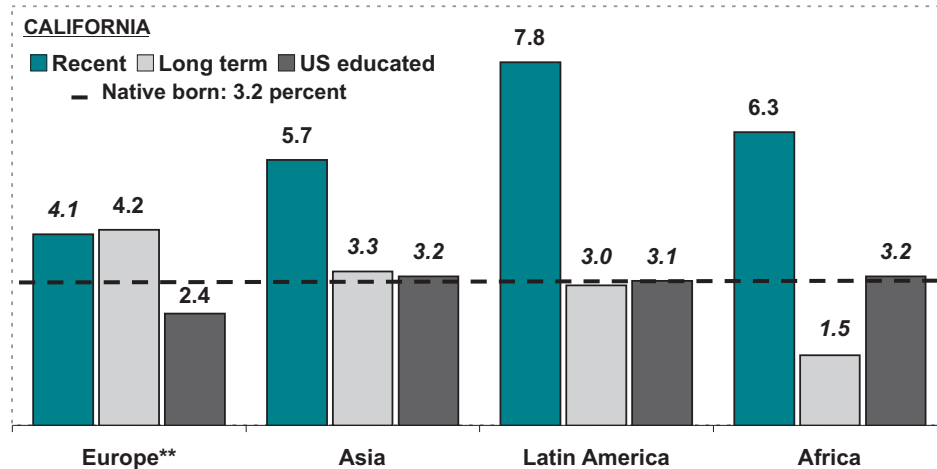
Notes: *Refers only to employed college-educated workers in the civilian labor force age 25 and older, excluding the self-employed. **"Europe" refers to Europe, Canada, and Oceania. "Foreign educated" is defined as immigrants with a bachelor's or higher degree who came to the United States before age 25. Among the foreign educated, "recent arrivals" are immigrants who came to the United States ten or fewer years ago, while "long term" are those who came to the United States 11 or more years ago.

Source: MPI analysis of 2005–2006 ACS.

APPENDIX D

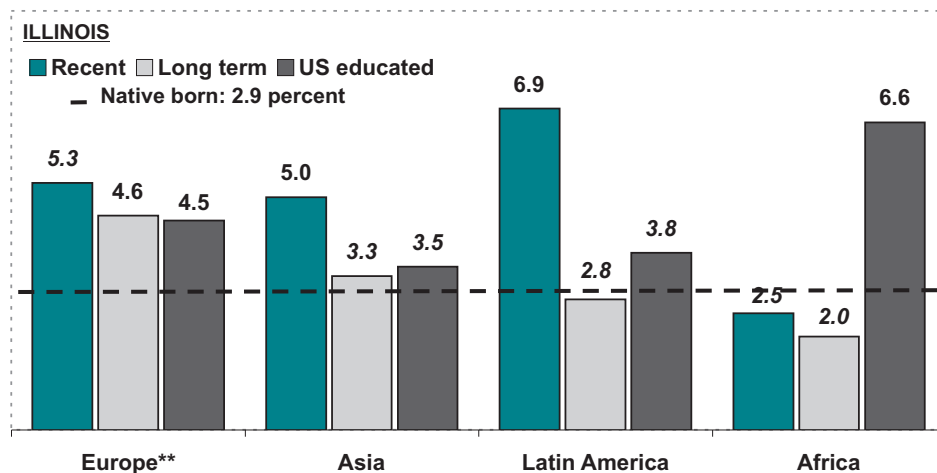
STATE-LEVEL CHARTS, ACS 2005–2006

**Figure D.1. Share of the College Educated Who Are Unemployed in California:
Native vs. Recent and Long-Term Foreign-Educated vs. US-Educated
Immigrant Workers, 2005-2006***



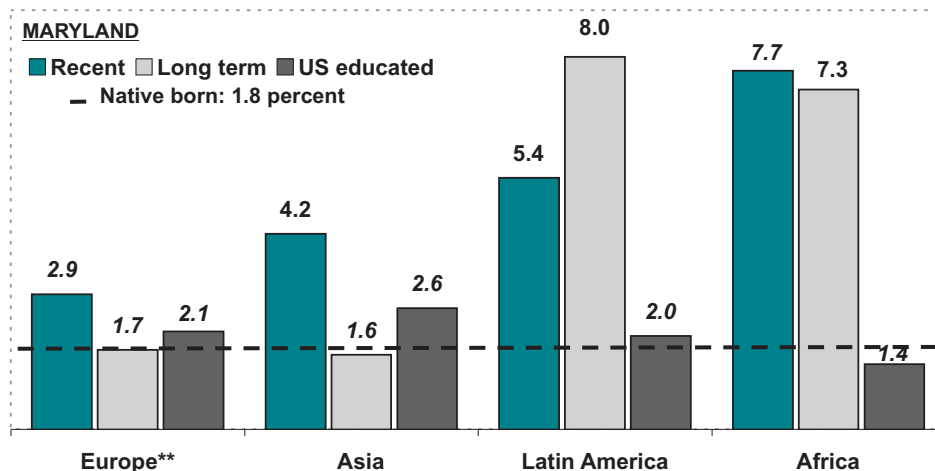
Notes: *Refers to college-educated workers age 25 and older in California's civilian labor force, including the self-employed. Among the foreign educated, "recent" refers to immigrants who came to the United States ten or fewer years ago, while "long term" includes immigrants who have been in the United States for 11 years or longer. **"Europe" refers to Europe, Canada, and Oceania. Statistically *nonsignificant* differences in the likelihood of unemployment between immigrant groups and native workers are in italics. The unemployment rate of the college-educated native born in California's civilian labor force was 3.2 percent.
 Source: MPI analysis of 2005-2006 ACS.

**Figure D.2. Share of the College Educated Who Are Unemployed in Illinois:
Native vs. Recent and Long-Term Foreign-Educated vs. US-Educated
Immigrant Workers, 2005-2006***



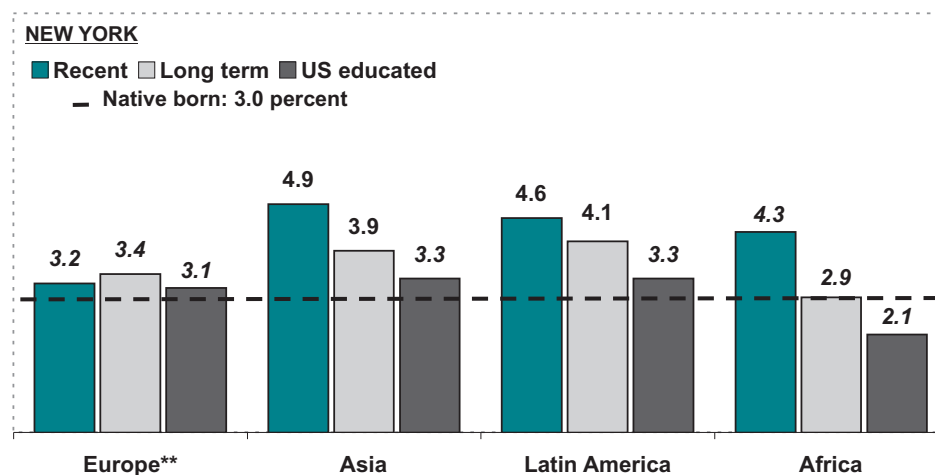
Notes: *Refers to college-educated workers age 25 and older in Illinois's civilian labor force, including the self-employed. Among the foreign educated, "recent" refers to immigrants who came to the United States ten or fewer years ago, while "long term" includes immigrants who have been in the United States for 11 years or longer. **"Europe" refers to Europe, Canada, and Oceania. Statistically *nonsignificant* differences in the likelihood of unemployment between immigrant groups and native workers are in italics. The unemployment rate of the college-educated native born in Illinois's civilian labor force was 2.9 percent.
 Source: MPI analysis of 2005-2006 ACS.

**Figure D.3. Share of the College Educated Who Are Unemployed in Maryland:
Native vs. Recent and Long-Term Foreign-Educated vs. US-Educated
Immigrant Workers, 2005-2006***



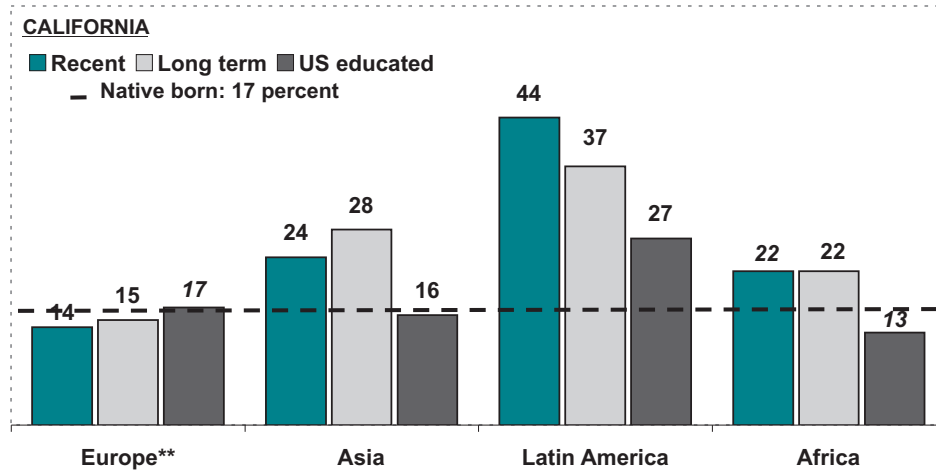
Notes: *Refers to college-educated workers age 25 and older in Maryland's civilian labor force, including the self-employed. Among the foreign educated, "recent" refers to immigrants who came to the United States ten or fewer years ago, while "long term" includes immigrants who have been in the United States for 11 years or longer. **"Europe" refers to Europe, Canada, and Oceania. Statistically *nonsignificant* differences in the likelihood of unemployment between immigrant groups and native workers are in italics. The unemployment rate of the college-educated native born in Maryland's civilian labor force was 1.8 percent.
Source: MPI analysis of 2005-2006 ACS.

**Figure D.4. Share of the College Educated Who Are Unemployed in New York:
Native vs. Recent and Long-Term Foreign-Educated vs. US-Educated
Immigrant Workers, 2005-2006***



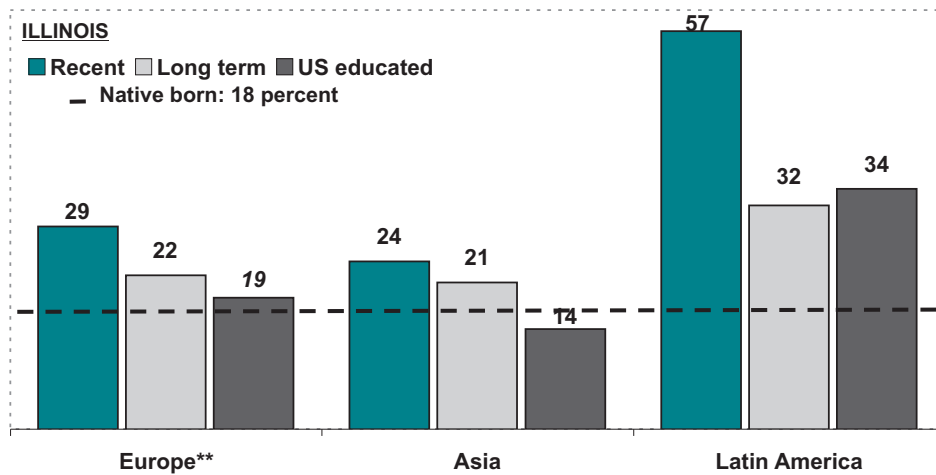
Notes: *Refers to college-educated workers age 25 and older in New York's civilian labor force, including the self-employed. Among the foreign educated, "recent" refers to immigrants who came to the United States ten or fewer years ago, while "long term" includes immigrants who have been in the United States for 11 years or longer. **"Europe" refers to Europe, Canada, and Oceania. Statistically *nonsignificant* differences in the likelihood of unemployment between immigrant groups and native workers are in italics. The unemployment rate of the college-educated native born in New York's civilian labor force was 3.0 percent.
Source: MPI analysis of 2005-2006 ACS.

Figure D.5. Share of the College Educated Employed in Unskilled Occupations in California: Native vs. Recent and Long-Term Foreign-Educated vs. US-Educated Immigrant Workers, 2005-2006*



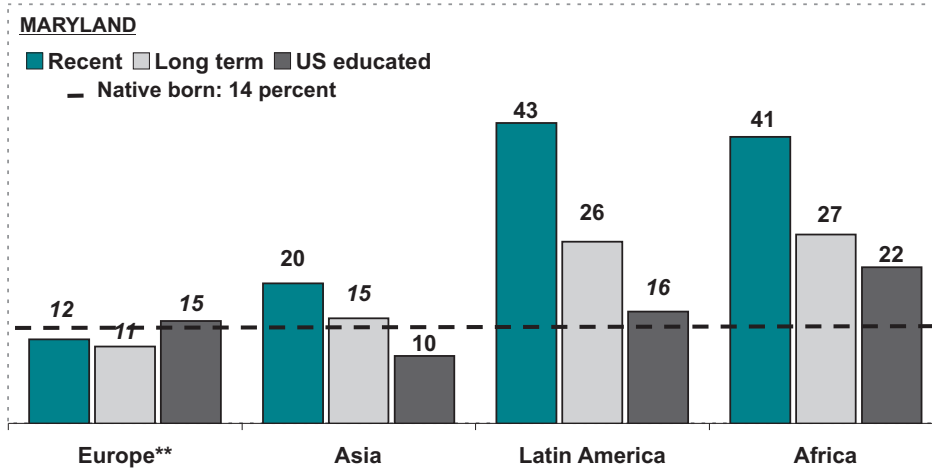
Notes: *Refers to college-educated employed workers age 25 and older in California's civilian labor force, excluding the self-employed. Among the foreign educated, "recent" refers to immigrants who came to the United States ten or fewer years ago, while "long term" includes immigrants who have been in the United States for 11 years or longer. **"Europe" refers to Europe, Canada, and Oceania. Statistically *nonsignificant* differences in the likelihood of unskilled employment between immigrant groups and native workers are in italics. The share of the college-educated native born employed in unskilled jobs in California was 17.0 percent.
 Source: MPI analysis of 2005-2006 ACS.

Figure D.6. Share of the College Educated Employed in Unskilled Occupations in Illinois: Native vs. Recent and Long-Term Foreign-Educated vs. US-Educated Immigrant Workers, 2005-2006*



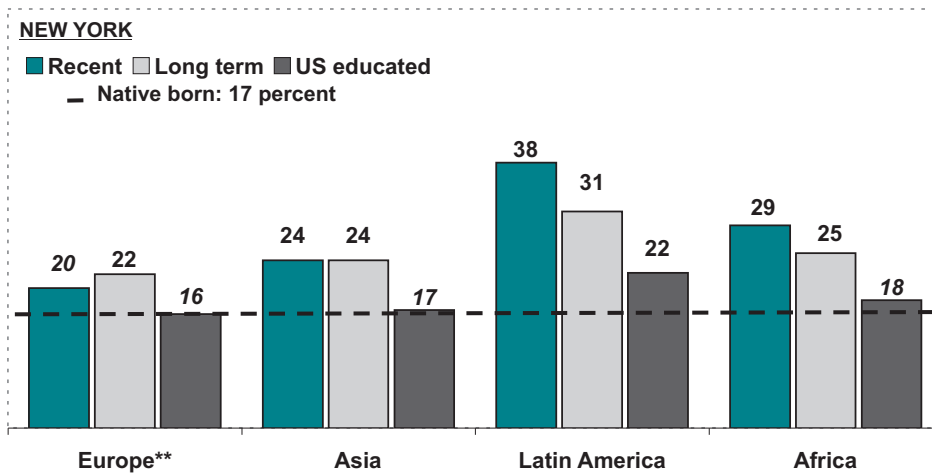
Notes: *Refers to college-educated employed workers age 25 and older in Illinois's civilian labor force, excluding the self-employed. Among the foreign educated, "recent" refers to immigrants who came to the United States ten or fewer years ago, while "long term" includes immigrants who have been in the United States for 11 years or longer. **"Europe" refers to Europe, Canada, and Oceania. The sample size of college-educated immigrants from Africa living in Illinois was too small to obtain statistically significant results. Statistically *nonsignificant* differences in the likelihood of unskilled employment between immigrant groups and native workers are in italics. The share of the college-educated native born employed in unskilled jobs in Illinois was 17.6 percent.
 Source: MPI analysis of 2005-2006 ACS.

Figure D.7. Share of the College Educated Employed in Unskilled Occupations in Maryland: Native vs. Recent and Long-Term Foreign-Educated vs. US-Educated Immigrant Workers, 2005-2006*



Notes: *Refers to college-educated employed workers age 25 and older in Maryland's civilian labor force, excluding the self-employed. Among the foreign educated, "recent" refers to immigrants who came to the United States ten or fewer years ago, while "long term" includes immigrants who have been in the United States for 11 years or longer. **"Europe" refers to Europe, Canada, and Oceania. Statistically *nonsignificant* differences in the likelihood of unskilled employment between immigrant groups and native workers are in italics. The share of the college-educated native born employed in unskilled jobs in Maryland was 13.8 percent.
Source: MPI analysis of 2005-2006 ACS.

Figure D.8. Share of the College Educated Employed in Unskilled Occupations in New York: Native vs. Recent and Long-Term Foreign-Educated vs. US-Educated Immigrant Workers, 2005-2006*



Notes: *Refers to college-educated employed workers age 25 and older in New York's civilian labor force, excluding the self-employed. Among the foreign educated, "recent" refers to immigrants who came to the United States ten or fewer years ago, while "long term" includes immigrants who have been in the United States for 11 years or longer. **"Europe" refers to Europe, Canada, and Oceania. Statistically *nonsignificant* differences in the likelihood of unskilled employment between immigrant groups and native workers are in italics. The share of the college-educated native born employed in unskilled jobs in New York was 17.3 percent.
Source: MPI analysis of 2005-2006 ACS.

APPENDIX E

LPR DEFINITIONS

According to the Office of Immigration Statistics, 1,052,415 foreign nationals became LPRs in 2007.* The table below provides a brief description of admission categories and the number of foreign nationals who became LPRs under each of these categories in 2007. Note: The number of LPRs (annual total and by category) varies by year. The numbers in the table below refer to fiscal year 2007.

| Group name | Description of admission conditions |
|--|---|
| Employment (number of LPRs: 162,176) | Foreign nationals who became LPRs based on sponsorship by a US employer or because they invested at least \$500,000 in the US economy and created 10 or more jobs. The Immigration and Nationality Act (INA) provides a yearly cap of 140,000 employment-based immigrant visas (for both principals and their dependents) that are divided into five preference categories, with a separate numerical limitation for each category: EB-1 Priority workers, EB-2 Professionals with advanced degrees, EB-3 Skilled and other workers, EB-4 Special immigrants, and EB-5 Investors. |
| <i>Status adjusters</i> (133,099) | Immigrant workers who adjusted their status from a temporary nonimmigrant visa, for example, H-1B “specialty occupation” visa or O visa (given to foreigners with extraordinary abilities in science, the arts, education, business, or sports.) |
| <i>New arrivals</i> (29,077) | Immigrant workers who received their permanent employment-based immigrant visa from the US embassy in their home country. |
| Family (number of LPRs: 689,820) | Foreign nationals who immigrate based on their family ties to US citizens and LPRs. The overall annual limit for relatives is 480,000; however, immediate relatives (spouses, unmarried children under 21, and parents) of US citizens are exempt from annual caps. Family categories that have numeric limitations include adult children and siblings of US citizens as well as spouses and children of LPRs already in the United States. |
| <i>Status adjusters</i> (329,247) | Family-based immigrants who received their green cards in the United States after adjusting from any one of the temporary nonimmigrant visas, such as K (fiancée), J (cultural exchange), H-1B, etc. |
| <i>New arrivals</i> (360,573) | Immigrants who received their permanent family-based immigrant visa from the US embassy in their home country. |

*Kelly Jeffries and Randall Monger, US Legal Permanent Residents: 2007 (Washington, DC: Department of Homeland Security, March 2008), http://www.dhs.gov/xlibrary/assets/statistics/publications/LPR_FR_2007.pdf.

Refugees, Asylees, and Parolees
(number of LPRs: 138,124)

Foreign nationals who are unable or unwilling to return to their country of origin or nationality because of persecution or a well-founded fear of persecution on account of their race, religion, nationality, membership in a social group, or political opinion.

Refugees are persons living outside the United States who are admitted through the resettlement program coordinated by the US authorities together with the United Nations Higher Commissioner for Refugees. Asylees are persons who might enter the United States as tourists or other temporary visitors, or even without proper documents, but who have requested asylum status upon arrival.

Refugees and asylees are eligible to adjust to LPR status without regard to numerical limit after one year of residence in the United States. The number of people who can be admitted as refugees is limited to 70,000 (fiscal year 2006). There is no cap on the number of people who can seek and receive asylum status. Until 2005, there was a 10,000 annual limit on the number of asylees who could become LPRs. The NIS sample dates to 2003 when the asylee-adjustment cap was still in place.

Parolees are foreign nationals who, while appearing to be inadmissible to the inspecting officer, are granted permission to enter the United States for a temporary stay because of urgent humanitarian reasons or significant public benefit. Although in general parolee status is temporary and granted on a case-by-case basis, nationals of some countries (e.g., the former Soviet Union, Cuba, Vietnam, Laos, and Cambodia) have benefited in the past from special legislation that allowed them to adjust to LPR status after one year of residence in the United States.

Status adjusters
(138,124)

The unique feature of the NIS “Refugee, Asylee, and Parolee” group is that the group includes persons who have been in the United States for at least a year in their respective pre-LPR status and received their LPR status in 2003. Thus, there are no “new arrivals” among this group of permanent residents.

Diversity
Entire group
(number of LPRs: 42,127)

The Immigration Act of 1990 established the Diversity Visa Lottery (also known as the Green Card Lottery) to allow entry to immigrants from countries with low rates of immigration to the United States. The act states that no more than 55,000 diversity visas are made available each fiscal year. Foreign nationals can participate in the lottery regardless of their place of residency (i.e., they can apply while being in the United States).

Educational requirement: Before receiving permission to immigrate, the lottery winners have to provide proof of a high school education or its equivalent, or show two years of work experience (in an occupation that requires at least two years of training or experience) within the past five years.

Here diversity LPRs include both new arrivals and status adjusters due to the small sample size of the latter group.

Legalized/Other LPRs
Entire group
(number of LPRs: 20,168)

“Legalized/Other LPRs” includes LPRs with an unidentified admission category as well as those who received LPR status as a result of legalization. Although NIS provides no definition about who legalized LPRs are, this group most likely includes beneficiaries of the 245(i) provision of INA. This provision allows foreign nationals who entered the United States without inspection or who overstayed or violated the terms of their legal stay to adjust to permanent residence by paying a \$1,000 penalty. However, only those immigrants whose relatives or employers submitted a green card or labor certification petition on their behalf before April 30, 2001, are eligible. These persons can adjust to LPR status even after April 30, 2001, as long as the qualifying application was filed by that date.

Here we combined the Legalized and Others categories of LPRs. It also includes both new arrivals and status adjusters.

APPENDIX F.1.
SELECTED DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS OF
FOREIGN-EDUCATED LPRS BY CLASS OF ADMISSION, 2003*

| | Total | Employment: status adjusters | Employment: new arrivals | Family: status adjusters | Family: new arrivals | Refugee: status adjusters | Diversity: all | Legalized/ others: all |
|---|-------|------------------------------------|-----------------------------|--------------------------------|-------------------------|---------------------------------|----------------|---------------------------|
| Number (unweighted) | 2,455 | 617 | 308 | 320 | 328 | 125 | 560 | 197 |
| Percent (weighted) | 100.0 | 15.3 | 7.1 | 27.9 | 21.1 | 6.2 | 13.1 | 9.4 |
| Demographics | | | | | | | | |
| Male (percent) | 46.9 | 53.1 | 44.6 | 34.1 | 44.2 | 60.8 | 59.5 | 55.8 |
| Age | 39.7 | 36.6 | 36.6 | 37.9 | 45.2 | 45.4 | 37.2 | 39.9 |
| Age at first arrival | 35.7 | 30.9 | 33.3 | 33.2 | 42.6 | 39.3 | 35.7 | 35.7 |
| Married/cohabiting (percent) | 85.8 | 91.0 | 77.7 | 95.1 | 93.2 | 76.5 | 76.3 | 59.5 |
| Human capital | | | | | | | | |
| <i>Education</i> | | | | | | | | |
| Years of education (mean) | 16.6 | 17.3 | 16.7 | 16.7 | 16.3 | 16.8 | 16.6 | 16.0 |
| Advanced degree (percent) | 28.6 | 38.6 | 23.1 | 27.7 | 23.6 | 37.3 | 35.5 | 15.9 |
| <i>English ability at NIS interview (percent)</i> | | | | | | | | |
| Not at all/not well | 27.5 | 8.3 | 9.5 | 21.7 | 36.8 | 36.1 | 46.1 | 37.6 |
| Well | 34.9 | 35.2 | 38.9 | 33.4 | 35.7 | 40.8 | 31.1 | 36.3 |
| Very well/English only | 37.5 | 56.5 | 51.6 | 44.9 | 27.5 | 23.2 | 22.8 | 26.1 |
| Region of birth** (percent) | | | | | | | | |
| Europe | 25.9 | 18.2 | 20.5 | 28.5 | 16.3 | 47.3 | 51.1 | 8.3 |
| Latin America | 15.7 | 4.4 | 3.2 | 26.0 | 10.6 | 23.3 | 3.7 | 35.7 |
| Asia | 45.5 | 72.6 | 68.4 | 32.9 | 63.9 | 8.5 | 13.4 | 49.4 |
| Africa | 12.9 | 4.9 | 7.9 | 12.6 | 9.1 | 21.0 | 31.8 | 6.7 |
| Admission variable | | | | | | | | |
| Principal applicant (percent) | 70.0 | 63.6 | 67.0 | 77.4 | 64.3 | 81.8 | 72.5 | 65.9 |

Notes: *All descriptive statistics were weighted with NIS sampling weights. "Refugee" refers to persons who adjusted to LPR status from refugee, asylee, or parolee status. There were no new arrivals in this group. The numbers of status adjusters in the "diversity" and "other/legalization" groups were small for a separate analysis, thus we combined them with respective groups of new arrivals. "Advanced degree" refers to master's and above. **"Europe" refers to Europe, Canada, Central Asia, and Oceania, while "Africa" refers to Africa, the Middle East, and unspecified countries.

Source: MPI analysis of 2003 NIS.

APPENDIX F.2.

SELECTED DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS OF FOREIGN-EDUCATED LPRS BY PLACE OF BIRTH, 2003*

| | Total | Europe | Latin America | Asia | Africa |
|---|-------|--------|---------------|-------|--------|
| Number (unweighted) | 2,455 | 667 | 275 | 1,170 | 343 |
| Percent (weighted) | 100.0 | 25.9 | 15.7 | 45.5 | 12.9 |
| Demographics | | | | | |
| Male (percent) | 46.9 | 47.9 | 43.7 | 43.3 | 61.6 |
| Age | 39.7 | 39.4 | 38.6 | 40.8 | 38.0 |
| Age at first arrival | 35.7 | 35.4 | 33.5 | 37.2 | 34.2 |
| Married/cohabiting (percent) | 85.8 | 85.3 | 84.4 | 88.5 | 79.4 |
| Human capital | | | | | |
| <i>Education</i> | | | | | |
| Years of education (mean) | 16.6 | 17.1 | 16.8 | 16.2 | 17.0 |
| Advanced degree (percent) | 28.6 | 45.4 | 23.0 | 22.6 | 23.1 |
| <i>English ability at NIS interview (percent)</i> | | | | | |
| Not at all/not well | 27.5 | 31.8 | 43.9 | 23.0 | 15.3 |
| Well | 34.9 | 24.8 | 34.5 | 41.0 | 34.8 |
| Very well/English only | 37.5 | 43.4 | 21.6 | 36.0 | 49.9 |
| Admission status (percent) | | | | | |
| Status adjusters | 52.4 | 56.4 | 68.7 | 46.4 | 46.1 |
| Principal applicant | 70.0 | 75.9 | 76.1 | 65.7 | 68.2 |
| Admission class** (percent) | | | | | |
| Employment | 22.3 | 16.2 | 5.8 | 35.0 | 10.2 |
| Family | 48.9 | 43.8 | 60.5 | 49.8 | 42.4 |
| Refugee | 6.2 | 11.2 | 9.2 | 1.2 | 10.1 |
| Diversity | 13.1 | 25.7 | 3.1 | 3.9 | 32.4 |
| Legalized/others | 9.4 | 3.0 | 21.5 | 10.2 | 4.9 |

Notes: *All descriptive statistics were weighted with NIS sampling weights. "Europe" refers to Europe, Canada, Central Asia, and Oceania, while "Africa" refers to Africa, the Middle East, and unspecified countries. "Advanced degree" refers to master's and above. **"Refugee" refers to persons who adjusted to LPR status from refugee, asylee, or parolee status. There were no new arrivals in this group. The numbers of status adjusters in the "diversity" and "legalized/others" groups were small for a separate analysis, thus we combined them with respective groups of new arrivals.

Source: MPI analysis of 2003 NIS.

WORKS CITED

- Akresh, Ilana Redstone. 2008. Occupational Trajectories of Legal US Immigrants: Downgrading and Recovery. *Population and Development Review* 34 (3): 435–456.
- Alba, Richard and Victor Nee. 2003. *Remaking the American Mainstream: Assimilation and Contemporary Immigration*. Cambridge: Harvard University Press.
- The Americas Society and Council of the Americas. 2008. US Business and Hispanic Integration: Expanding the Economic Contributions of Immigrants. White paper, July 2008. <http://www.as-coa.org/files/editor/image/IntegrationWhitePaper.pdf>.
- Batalova, Jeanne. 2006. *Skilled Immigrant and Native Workers: The Economic Competition Debate and Beyond*. Chapter 3. New York: LFB Scholarly Publishing.
- Batalova, Jeanne and Michael Fix. Forthcoming 2008. Highly Skilled Immigrant and Native-Born Workers in the United States. *Migration Information Source*.
- Birrell, Bob, Leslyanne Hawthorne, and Sue Richardson. 2006. *Evaluation of the General Skilled Migration Categories*. Canberra: Commonwealth of Australia. <http://www.immi.gov.au/media/publications/research/gsm-report/index.htm>.
- Brouwer, Andrew. 1999. *Immigrants Need Not Apply*. Ottawa: Caledon Institute of Social Policy. <http://maytree.com/policy-library/publications>.
- Chiswick, Barry R., Yew Liang Lee, and Paul W. Miller. 2003. Patterns of Immigrant Occupational Attainment in a Longitudinal Survey. *International Migration* 41 (4): 47–69.
- Collett, Elizabeth and Karolina Sitek. 2008. *Making Migration Work: The Role of Employers in Immigrant Integration*. Brussels: European Policy Center.
- Creticos, Peter, James Schutz, Amy Beeler, and Eva Ball. 2006. *The Integration of Immigrants in the Workplace*. Chicago: Institute for Work and the Economy.
- Creticos, Peter, Michael Fix, Jeanne Batalova, Amy Beeler, and Rob Paral. 2007. *Employing Foreign-Educated Immigrants: A Report to the Joyce Foundation*. Chicago: Institute for Work and the Economy. <http://www.workandeconomy.org/Employing%20Internationally%20Educated%20Final.pdf>.
- Friedberg, Rachel. 2007. The Economic Impact of Knowledge Workers from India and China. In *Movement of Global Talent: The Impact of High Skill Labor Flows from India and China*, ed. by Udai Tambar. Princeton, NJ: Policy Research Institute for the Region.
- . 2000. You Can't Take It With You? Immigrant Assimilation and the Portability of Human Capital. *Journal of Labor Economics* 18 (2): 221–246.
- Gilmore, Jason and Christel Le Petit. 2008. *The Canadian Immigrant Labour Market in 2007: Analysis by Region of Postsecondary Education*. Ottawa: Statistics Canada. <http://www.statcan.ca/english/freepub/71-606-XIE/71-606-XIE2008004.pdf>.
- Goldring, Luin. 2003. Re-thinking Remittances: Social and Political Dimensions of Individual and Collective Remittances. Working Paper, Center for Research on Latin America and the Caribbean, Toronto, February 2003.

-
- Hawthorne, Lesleyanne. 2008. *The Impact of Economic Selection Policy on Labour Market Outcomes for Degree-Qualified Migrants in Canada and Australia*. Montreal: Institute for Research on Public Policy.
- Hersch, Joni. 1995. Optimal Mismatch and Promotions. *Economic Inquiry* 33 (4): 611–624.
- Jefferys, Kelly and Randall Monger. 2008. *US Legal Permanent Residents: 2007*. Washington, DC: Department of Homeland Security. http://www.dhs.gov/xlibrary/assets/statistics/publications/LPR_FR_2007.pdf.
- Kaushai, Neeraj and Michael Fix. 2006. *The Contributions of High-Skilled Immigrants*. Washington, DC: Migration Policy Institute. http://www.migrationpolicy.org/ITFIAF/TF16_Kaushal.pdf.
- Kuznetsov, Yevgeny, ed. 2006. *Diaspora Networks and the International Migration of Skills*. Washington, DC: World Bank Institute.
- Lewin-Epstein, Noah, Moshe Semvov, and Irena Kogan. 2003. Institutional Structure and Immigrant Integration: A Comparative Study of Immigrants' Labor Market Attainment in Canada and Israel. *International Migration Review* 37 (2): 389–420.
- McHugh, Margie, Julia Gelatt, and Michael Fix. 2007. *Adult English Language Instruction in the United States: Determining Need and Investing Wisely*. Washington, DC: Migration Policy Institute.
- Meissner, Doris, Deborah Meyers, Demetrios Papademetriou, and Michael Fix. 2006. *Immigration and America's Future: A New Chapter*. Washington, DC: Migration Policy Institute.
- Nana, Chavi Keeney. 2007. With Strict Policies in Place, Dutch Discourse on Integration Becomes More Inclusive. *Migration Information Source*, April 2007. <http://www.migrationinformation.org/Feature/display.cfm?id=596>.
- National Science Board. 2008. *Science and Engineering Indicators 2008*, Chapter 3. Arlington, VA: National Science Foundation. <http://www.nsf.gov/statistics/seind08/pdf/c03.pdf>.
- New Profit Inc. 2008. Canada Market Research for Upwardly Global. Unpublished research paper. Cambridge: New Profit Inc.
- Papademetriou, Demetrios. Selecting Economic Stream Immigrants through Points Systems. *Migration Information Source*, May 2007. <http://www.migrationinformation.org/Feature/display.cfm?ID=602>.
- Papademetriou, Demetrios, Will Somerville, Jeanne Batalova, and Hiroyuki Tanaka. Forthcoming. *Points Systems: The Next Generation of Economic Migration Selection*. Washington, DC: Migration Policy Institute.
- Papademetriou, Demetrios and Will Somerville. 2008. Observations on the Social Mobility of the Children of Immigrants in the United States and United Kingdom. Paper presented at the meeting organized by the Carnegie Corporation of New York and The Sutton Trust, June 3, 2008.
- Reitz, Jeffrey. 2002. Host Societies and the Reception of Immigrants: Research Themes, Emerging Theories and Methodological Issues. *International Migration Review* 36 (4): 1005–1019.
- . 2005. Tapping Immigrants' Skills: New Directions for Canadian Immigration Policy in the Knowledge Economy. *IRPP Choices* 11 (1).
- . 2006. Does Canadian Experience in Immigrant Integration Have Lessons for Europe? Keynote Address at Third Annual Conference of the International Migration, Integration, and Social Cohesion Network, Vienna, September 5, 2006.
- Saxenian, AnnaLee. 2006. *The New Argonauts: Regional Advantage in a Global Economy*. Cambridge: Harvard University Press.
- Shachar, Ayelet. 2006. The Race for Talent: Highly Skilled Migrants and Competitive Immigrant Regimes. *New York University Law Review* 81.

-
- Smith, James and Barry Edmonston. 1997. *The New Americans: Economic, Demographic and Fiscal Effects of Immigration*. Washington, DC: National Academies Press.
- Sorensen, Elaine, Frank Bean, Leighton Ku, and Wendy Zimmermann. 2006. *Immigrant Categories and the US Job Market: Do They Make a Difference?* Washington, DC: The Urban Institute Press.
- Wadhwa, Vivek, AnnaLee Saxenian, Ben Rissing, and Gary Gereffi. 2008. Skilled Immigration and Economic Growth. *Applied Research in Economic Development* 5 (1): 6–14. <http://ssrn.com/abstract=1141190>.
- Wescott, Clay and Jennifer Brinkerhoff. 2007. *Converting Migration Drains into Gains: Harnessing the Resources of Overseas Professionals*. Manila: Asian Development Bank.

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The Center's core functions include policy research and design, leadership development, convening stakeholders, technical assistance, and an electronic resource center with a special focus on state and local policies. The Center offers the most pertinent data on immigrants and their integration, as well as demographic trends and state-by-state information on immigrant populations.

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