

The Costs of Brain Waste among Highly Skilled Immigrants in Ohio

By Ariel G. Ruiz Soto, Jeanne Batalova, and Michael Fix

Like other Rust Belt states, Ohio was an important destination for immigrants during the first half of the 20th century. Drawn by a strong manufacturing industry, immigrants represented 7 percent of the state population in 1940—just below the national average. In the decades that followed, immigration to Ohio slowed with the decline in manufacturing, and today immigrants make up 4 percent (or 504,000) of the state’s 11.6 million residents—well below the 13 percent national average. While relatively small in number, the adult immigrant population in Ohio is significantly more likely to be college educated than the foreign born nationwide (43 percent and 29 percent, respectively) or than the state’s U.S.-born adults (26 percent).¹ Nonetheless, a substantial number of college-educated immigrants in Ohio find that they cannot put their academic and professional qualifications to full use.

Box 1. What Is Brain Waste? Quick Definitions

Brain waste describes the situation when college graduates cannot fully utilize their skills and education in the workplace despite their high professional qualifications. (The terms *college educated* and *highly skilled* are used interchangeably in this fact sheet.)

Brain waste (or *skill underutilization*) is defined here as comprising two unfavorable labor market outcomes: unemployment and underemployment.

- *Unemployment* occurs when a person who is actively searching for employment is unable to find work.
- *Underemployment* refers to work by the highly skilled in *low-skilled jobs*, that is, jobs that require only moderate on-the-job training or less (e.g., home-health aides, personal-care aides, maids and housekeepers, taxi and truck drivers, and cashiers). These occupations typically require a high school diploma or less.

In contrast, highly skilled individuals who are *adequately employed* work in high- or middle-skilled jobs. *High-skilled* jobs require at least a bachelor’s degree (e.g., surgeons, scientists, and engineers); *middle-skilled* jobs require long-term on-the-job training, vocational training, or an associate’s degree (e.g., carpenters, electricians, and real estate brokers).

Because individuals in middle-skilled jobs are considered adequately employed in this analysis, underemployment refers only to those who are *severely underemployed*, or in positions substantially below their level of training.

Using an innovative methodology developed by the Migration Policy Institute (MPI), this fact sheet examines the skill underutilization of highly skilled immigrants—also known as “brain waste”—and its economic costs in Ohio. The authors estimate the number and share of college-educated immigrants who work in low-skill jobs or are unemployed in Ohio. They identify the key factors underlying this brain waste and estimate the amount of annual earnings and state and local taxes lost because immigrant college graduates end up working in

low-skilled jobs. In general, the analysis employs two types of comparisons: (1) between the foreign born² and U.S. born who are college graduates; and (2) between foreign-educated and U.S.-educated immigrants. This fact sheet accompanies a national report on skill underutilization, *Untapped Talent: The Costs of Brain Waste among Highly Skilled Immigrants in the United States*.³

Key Findings

- Ohio was home to 117,000 highly skilled immigrants with at least a bachelor's degree during the 2009-13 period.⁴ Of this group, 21 percent—or 24,000 people—were either working in low-skilled jobs or unemployed. That compared to the 25 percent rate of skill underutilization for college-educated immigrants nationwide.
- Low-skilled employment resulted in immigrant college graduates in Ohio forgoing approximately \$514.5 million in annual earnings. As a result, Ohio experienced \$53 million in unrealized state and local tax revenue. Nationally, immigrant underemployment resulted in more than \$39.4 billion in lost annual earnings and \$3 billion in forgone state and local taxes.
- Unlike the country as a whole, highly skilled immigrants in Ohio were only somewhat more likely to be experience brain waste than the U.S. born—with 21 percent of college-educated immigrants in the state working in low-skilled jobs or without work, compared to 19 percent of Ohioans born in the United States. This represents a smaller gap than in other study states.
- Having a degree earned outside the United States increases the likelihood of brain waste: Foreign-educated⁵ immigrants in Ohio were more likely to be either underemployed or unemployed (23 percent) than U.S.-educated immigrants (18 percent). (Nationally, these shares were 29 percent and 21 percent, respectively). Immigrants in Ohio were also more likely to experience brain waste if they had limited English skills, had only a bachelor's degree, or were Hispanic or Black.⁶ Time in the United States reduced skill underutilization for immigrant women more than for men.⁷
- Unlike the country as a whole, legal status and citizenship appeared to reduce brain waste for foreign-educated immigrants, but not for U.S.-educated immigrants in Ohio. Among immigrants educated abroad, those who were unauthorized had a skill underutilization rate of 38 percent, compared to 31 percent for legal permanent residents and 21 percent for naturalized U.S. citizens.
- Black immigrants in Ohio had the highest skill underutilization rates of all racial and ethnic groups (39 percent), followed by Hispanic immigrants (27 percent). In contrast, Asian and White immigrants had relatively low levels of brain waste, 16 percent and 21 percent, respectively.
- The relatively small difference in brain waste between the foreign born and U.S. born in Ohio could be attributable to the fact that immigrants were much more likely to have advanced degrees (52 percent) than their U.S.-born counterparts (36 percent). Additionally, even though immigrants in Ohio were more likely to be educated abroad than immigrants nationwide, they had stronger English skills, were more likely to be on temporary visas,

hold advanced degrees, and be of Asian or European origin—the characteristics associated with a lower risk of brain waste. Finally, state and city organizations in Ohio have supported efforts not only to attract skilled immigrants and entrepreneurs, but to help them find employment. Several cities in Ohio, including Akron, Cleveland, and Dayton, have developed programs in the last decade designed to help highly skilled immigrants integrate and find appropriate work.⁸ The state has recently taken steps to attract international postgraduate students and match them to employers after graduation.⁹

of all highly skilled workers in the state—double the share that immigrants made up of the total Ohio population (4 percent). (“College graduates” and the “highly skilled” are used interchangeably in this fact sheet and refer to adults with a bachelor’s degree or higher.)

Brain Waste Levels. Unlike the country as a whole, immigrant and U.S.-born college graduates in Ohio had roughly similar levels of brain waste: 21 percent of immigrants (24,000 people) were either unemployed or underemployed versus 19 percent of the U.S. born (258,000 people) (see Table 1). Additionally, highly skilled immigrants were less likely to experience brain waste in Ohio than nationwide (25 percent).

I. Highly Skilled Immigrants by the Numbers

Highly Skilled Immigrants. There were 117,000 immigrant college graduates in the Ohio civilian labor force during the 2009-13 period (see Table 1). They accounted for 8 percent

II. Economic Cost of Brain Waste

Beyond the human-capital losses that are felt by individuals and their families, brain waste has broader economic implications. Workers who are either underemployed or lack employment

Table 1. Employment Status of Highly Skilled Adults in Ohio and United States, by Nativity (%), 2009-13

	Ohio		United States	
	Immigrants	U.S. Born	Immigrants	U.S. Born
Total labor force	117,000	1,388,000	7,618,000	37,936,000
<i>Percent</i>	100	100	100	100
Unemployed	5	4	6	4
Employed by job type				
High-skilled	67	62	57	62
Middle-skilled	12	19	18	19
Low-skilled	15	15	19	14
Brain waste: Unemployed or in low-skilled jobs				
Number	24,000	258,000	1,918,100	6,974,800
Percent	21	19	25	18

Source: Migration Policy Institute (MPI) analysis of U.S. Census Bureau data from the pooled 2009-13 American Community Survey (ACS) and 2008 Survey of Income and Program Participation (SIPP), with legal status assignments by James Bachmeier of Temple University and Jennifer Van Hook of The Pennsylvania State University, Population Research Institute.

despite their high professional qualifications have lower disposable incomes to spend and invest, and they pay less in taxes as a result of these forgone earnings. At the same time, employers—and the economy—miss an opportunity to hire available workers with needed skills and qualifications.

In this fact sheet, the Migration Policy Institute (MPI) for the first time estimates the value of forgone earnings associated with low-skilled employment of highly skilled immigrants, as well as the state and local taxes that would be generated by those earnings.¹⁰ To do so, the authors compared the average annual earnings of highly skilled immigrants working in low-skilled jobs to those of “adequately” employed immigrants—i.e., those working in middle- and high-skilled jobs. Using decomposition analysis, the authors then estimated the amount of earnings losses attributable to low-skilled employment after controlling for demographic, educational, linguistic, legal status, and other factors.¹¹ It is important to note that these figures are in some ways conservative, as they do not account for the lost wages of highly skilled immigrants who were unemployed during the study period,

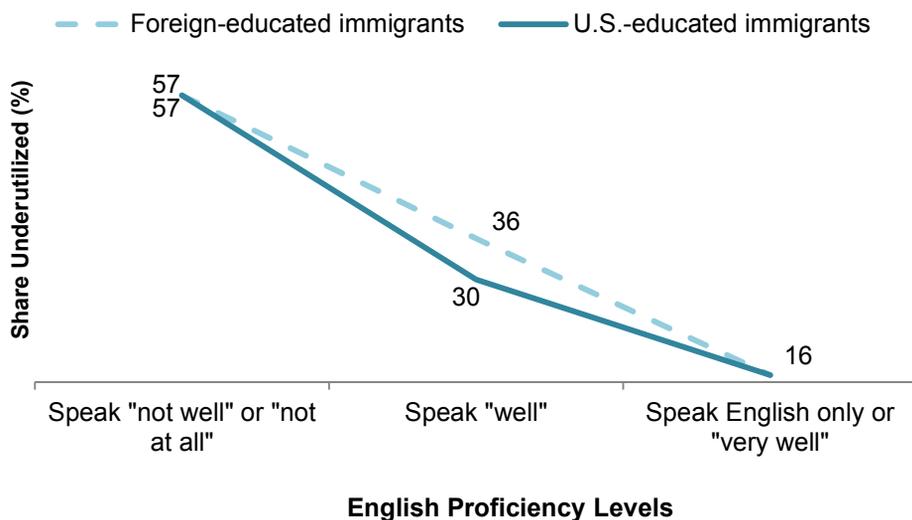
despite wanting to work. Lost wages are also not quantified for highly skilled immigrant workers in occupations that require more than a high school diploma but less than a bachelor’s degree (e.g., dental hygienists, teacher assistants, and electricians).

The value of annual earnings that highly skilled immigrants in Ohio lost due to their employment in low-skilled jobs amounted to \$514.5 million during the period surveyed. If these immigrants had instead been adequately employed and remunerated correspondingly, their households would have paid an additional \$53 million in state and local taxes. Nationwide, the low-skilled employment of college-educated immigrants resulted in \$39.4 billion in forgone wages and \$3 billion in unrealized state and local taxes annually.¹²

III. Factors Driving Brain Waste

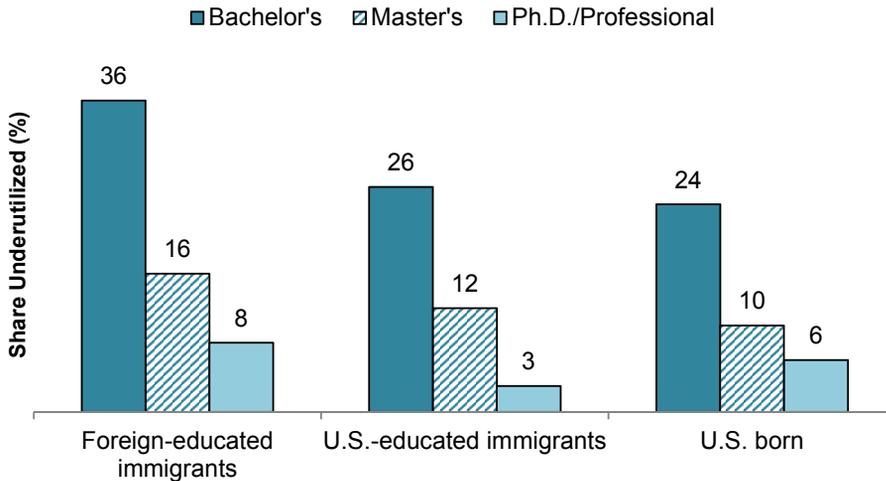
Several demographic characteristics of highly skilled immigrants in Ohio help explain why they have similar rates of skill underutilization

Figure 1. Underemployment and Unemployment of Highly Skilled Immigrants in Ohio, by Place of Education and English Proficiency (%), 2009-13



Source: MPI analysis of 2009-13 ACS and 2008 SIPP data from the U.S. Census Bureau, with legal status assignments by Bachmeier and Van Hook.

Figure 2. Underemployment and Unemployment of Highly Skilled in Ohio, by Nativity, Place of Education, and Degree Level (%), 2009-13



Source: MPI analysis of 2009-13 ACS and 2008 SIPP data from the U.S. Census Bureau, with legal status assignments by Bachmeier and Van Hook.

as the U.S. born. These factors include their higher-than-average level of education, as well as underlying demographic characteristics. Some of these issues are examined below.

Place of Education. Of the 117,000 highly skilled immigrants in Ohio, 56 percent (65,000) were foreign educated and 44 percent (52,000) obtained their degrees in the United States. Highly skilled immigrants in Ohio were slightly more likely than immigrants nationally to have been educated abroad (52 percent).

Like the country as a whole, foreign-educated immigrants in Ohio were more likely to be either underemployed or unemployed (23 percent) than U.S.-educated immigrants (18 percent). These higher rates of skill underutilization among the foreign educated reflect a number of factors, among them real and perceived differences in the quality of U.S. and foreign education, adult newcomers' access to professional networks, and the difficulties that immigrants can face in getting their foreign credentials and professional experiences recognized by employers and professional licensing bodies.

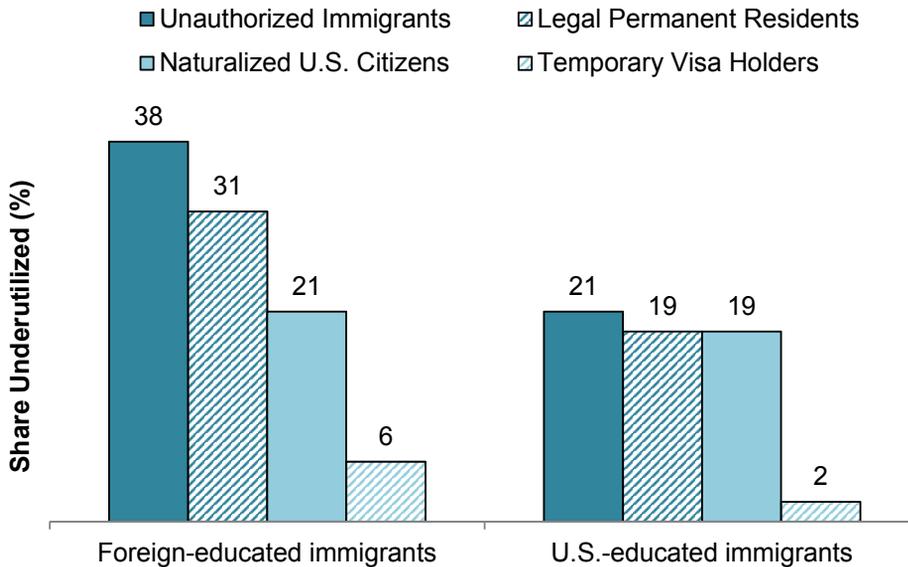
English Proficiency. The majority of highly skilled immigrants in Ohio were English proficient: 73 percent of the foreign educated and 90 percent of the U.S. educated (compared to 67 percent and 86 percent respectively at the national level).¹³

Limited English skills contributed significantly to higher risk of brain waste. Immigrants in Ohio who spoke English “not well” or “not at all” were nearly four times more likely to be underemployed or unemployed than those who spoke English “only” or “very well” (see Figure 1).

Level of Degree. As at the national level, college-educated immigrants in Ohio were more likely than the U.S. born to have advanced degrees:¹⁴ 52 percent and 36 percent, respectively. Nationally, 43 percent of college-educated immigrants had advanced degrees—making the high education level of immigrants in Ohio particularly notable.

Regardless of place of birth or education, bachelor degree holders had much higher rates of skill underutilization than those with advanced degrees. Among the foreign educated in Ohio, 36 percent of bachelor degree holders experienced

Figure 3. Underemployment and Unemployment of Highly Skilled Immigrants in Ohio, by Place of Education and Legal Status (%), 2009-13



Source: MPI analysis of 2009-13 ACS and 2008 SIPP data from the U.S. Census Bureau, with legal status assignments by Bachmeier and Van Hook.

brain waste compared to 8 percent of those with a Ph.D. or professional degree, such as a law or medical degree (see Figure 2). Foreign-educated immigrants at all degree levels were more likely to be underemployed or unemployed than those with U.S. degrees.

Legal Status/Citizenship. Fifty-two percent of highly skilled immigrants in Ohio were naturalized U.S. citizens, 25 percent were legal permanent residents (LPRs), 14 percent were temporary visa holders, and 9 percent were unauthorized immigrants. Highly skilled immigrants in Ohio were less likely to be naturalized U.S. citizens than the trend nationwide, where 57 percent of highly skilled immigrants were naturalized. They were, however, more likely to be on temporary visas (8 percent of immigrants fall into that category nationally).

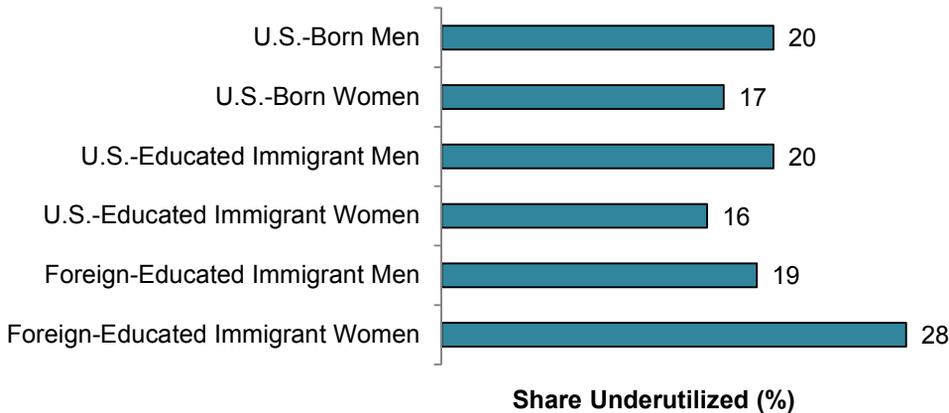
As with the rest of the country, temporary visa holders had the lowest rates of skill underutilization—owing in large part to visa requirements.¹⁵ For instance, many temporary visa holders have visas such as the H-1B (for highly skilled workers) or the L-1 (for intracompany transfers), meaning they have presumably been

sponsored by a company or nonprofit institution to perform a job commensurate with their experience and skill level.

Highly skilled immigrants in Ohio displayed an unexpected pattern when it came to legal status and citizenship, however. For those educated abroad, legal status and citizenship were associated with lower skill underutilization, as unauthorized immigrants had the highest rates (38 percent) followed by LPRs (31 percent), naturalized U.S. citizens (21 percent), and temporary visa holders (6 percent) (see Figure 3). But for U.S.-educated immigrants, legal status and citizenship seemed to have little impact on skill underutilization as unauthorized immigrants, LPRs, and naturalized citizens all had similar rates of brain waste.

Gender. Women represented 39 percent of the 117,000 highly skilled immigrants in Ohio and 50 percent of the state’s 1.4 million U.S.-born college graduates. Foreign-educated immigrant women had the highest skill underutilization rate of all college-educated workers in the state (28 percent) (see Figure 4).

Figure 4. Underemployment and Unemployment of Highly Skilled in Ohio, by Nativity, Place of Education, and Gender (%), 2009-13



Source: MPI analysis of 2009-13 ACS and 2008 SIPP data from the U.S. Census Bureau, with legal status assignments by Bachmeier and Van Hook.

Time in the United States. Length of residence in the United States had a bigger impact on the skill underutilization of immigrant women than of men—a change that may owe to shifting social norms within immigrant families as well as a need for higher household earnings.¹⁶ The levels of brain waste among immigrant women decreased from 31 percent of recent arrivals (i.e., in the country for five years or less) to 18 percent of long-term residents (i.e., in the country for 15 years or more). By contrast, skill underutilization rates of immigrant men declined

only slightly: from 21 percent of recent arrivals to 19 percent of long-term residents.

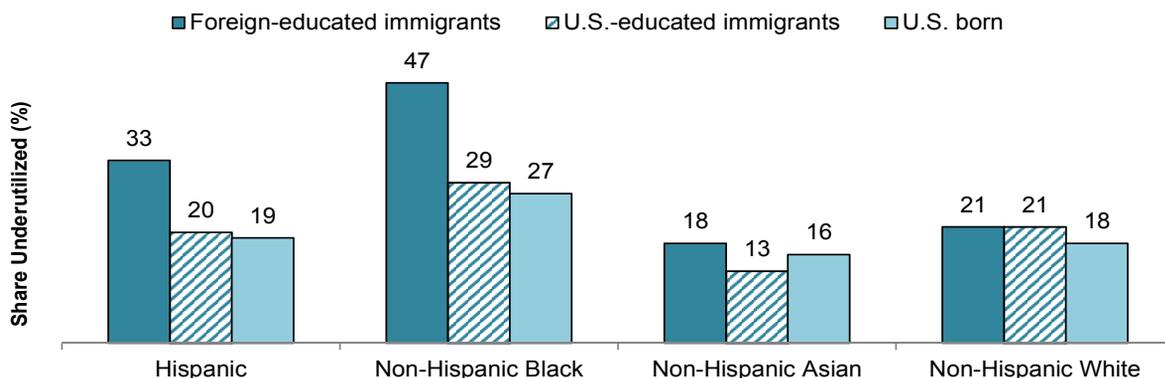
Race and Ethnicity. The racial and ethnic composition of highly skilled immigrants in Ohio was roughly the same by place of education (see Table 2): 46-51 percent were Asian, 34-38 percent were White, 9-10 percent were Black, and 6-7 percent were Hispanic. The racial and ethnic makeup of U.S.-born college graduates was predominantly White, with that group making up 91 percent of the population. Nationwide, Hispanics represented 18 percent of all highly

Table 2. Race and Ethnicity of the Highly Skilled in Ohio, by Nativity and Place of Education (%), 2009-13

Race/Ethnicity	Ohio		
	Foreign-Educated Immigrants	U.S.-Educated Immigrants	U.S. Born
Number	65,000	52,000	1,388,000
<i>Percent</i>	100	100	100
Hispanic	6	7	1
Non-Hispanic Black	9	10	7
Non-Hispanic Asian	51	46	1
Non-Hispanic White	34	38	91

Source: MPI analysis of 2009-13 ACS and 2008 SIPP data from the U.S. Census Bureau, with legal status assignments by Bachmeier and Van Hook.

Figure 5. Underemployment and Unemployment of Highly Skilled in Ohio, by Nativity, Place of Education, and Race/Ethnicity (%), 2009-13



Source: MPI analysis of 2009-13 ACS and 2008 SIPP data from the U.S. Census Bureau, with legal status assignments by Bachmeier and Van Hook.

skilled immigrants. On average, Hispanic and Black immigrants were more likely to experience brain waste nationwide. Thus, the racial and ethnic makeup of the highly skilled immigrant population in Ohio may help explain why immigrants fared better than average.

Unlike the country as a whole, Blacks in the state had the highest skill underutilization rates of all racial and ethnic groups: with 47 percent of foreign-educated and 29 percent of U.S.-educated Black immigrants being either underemployed or unemployed, as were 27 percent of U.S.-born Blacks (see Figure 5). Hispanic foreign-educated immigrants also had high levels of brain waste, with one-third of them working in low-skilled jobs or seeking employment. Skill underutilization rates of Asians were lower than those of Whites, regardless of nativity or place of education.

Region and Country of Birth. Immigrants from India and other Southwest Asian countries represented more than one-quarter of Ohio’s foreign- and U.S.-educated immigrant populations— higher shares than nationally (see Table 3). By contrast, immigrants from Central America and Southeast Asia represented smaller shares of highly skilled immigrants in Ohio than nationwide. Nationally, highly skilled immigrants from India or Southwest Asia had far lower unemployment rates than those from

Central America or Southeast Asia, a pattern repeated in Ohio.

Although they represented lower shares of highly skilled immigrants in Ohio, those from Africa had the highest rate of skill underutilization among those educated abroad (42 percent) and the second-highest rate (31 percent) among those educated in the United States (see Table 4). At the same time, African immigrants had much higher levels of brain waste in Ohio than nationwide. By contrast, Central American and Caribbean immigrants had significantly lower skill underutilization rates in the state than at the national level.

IV. Conclusion

In sum, 21 percent of the 117,000 college-educated immigrants living in Ohio were underemployed or unemployed during the 2009-13 period. Low-skilled employment among these highly skilled immigrants comes with a price tag: \$514.5 million in annual lost earnings. And if this amount of earnings had not been forgone, immigrant households would have paid an additional \$53 million in state and local taxes.

The scale of this economic impact suggests that policymakers would do well to continue their ef-

Table 3. Region/Country of Birth and Place of Education for Highly Skilled Immigrants in Ohio and United States (%), 2009-13

Region or Country of Birth	Ohio		United States	
	Foreign-Educated Immigrants (%)	U.S.-Educated Immigrants (%)	Foreign-Educated Immigrants (%)	U.S.-Educated Immigrants (%)
Total (Number)	65,000	52,000	3,992,000	3,626,000
<i>Percent</i>	100	100	100	100
East Asia	17	14	16	16
China	12	9	9	10
Japan/Asian Tigers*	5	5	6	6
Southeast Asia	6	8	13	14
Philippines	4	4	10	6
Southwest Asia	30	25	20	17
India	25	22	15	12
Middle East	5	7	3	3
Central America	3	3	7	11
Mexico	2	1	5	7
Caribbean	1	3	5	9
South America	3	5	8	7
Canada	4	4	3	3
Australia/Oceania	-	-	1	<1
European Union/EEA**	12	15	12	11
Rest of Europe	7	6	6	4
Africa	11	9	7	5

* Japan/Asian Tigers refers to Hong Kong, Japan, Singapore, and South Korea.

** European Union/EEA refers to the 28 European countries that were part of the European Union as of 2013, plus Iceland, Liechtenstein, and Norway, which are part of the European Economic Area (EEA).

Source: MPI analysis of 2009-13 ACS and 2008 SIPP data from the U.S. Census Bureau, with legal status assignments by Bachmeier and Van Hook.

forts to address the barriers to full employment that immigrants—particularly those who are foreign educated—face in the Ohio labor market. Given the costs documented here, policies that promote the recognition of foreign credentials, make licensing requirements more transparent, and expand access to courses that teach professional English and fill educational gaps should provide substantial returns on public investment.

Ohio is one state that has already taken some steps in this direction. Five Ohio cities, including Akron, Cincinnati, Cleveland, Columbus, and

Dayton, are part of the WE Global Network, a coalition of economic development initiatives aimed at attracting and helping immigrants. In these cities, immigrants are given assistance as they integrate and helped to connect with employers that may be seeking their specific skills. A new state-level initiative, Ohio G.R.E.A.T, aims to attract talented international students and match them with employers after graduation.

Although this research project did not study the specific impact of such integration programs, some of which are still in early stages, such efforts may be contributing to the fact

Table 4. Underemployment and Unemployment of Highly Skilled Immigrants, by Place of Education and Region/ Country of Birth in Ohio and United States (%), 2009-13

Region or Country of Birth	Ohio		United States	
	Foreign-Educated Immigrants (%)	U.S.-Educated Immigrants (%)	Foreign-Educated Immigrants (%)	U.S.-Educated Immigrants (%)
Total (%)	23	18	29	21
East Asia	13	15	20	16
China	12	11	16	14
Japan/Asian Tigers*	15	23	25	20
Southeast Asia	40	15	35	20
Philippines	40	17	35	21
Southwest Asia	16	12	23	16
India	15	11	18	13
Middle East	27	29	28	21
Central America	37	32	51	36
Mexico	38	30	47	36
Caribbean	30	15	44	24
South America	25	26	37	25
Canada	7	12	12	15
Australia/Oceania	-	-	16	18
European Union/EEA**	17	18	18	19
Rest of Europe	33	14	33	23
Africa	42	31	37	26

* Japan/Asian Tigers refers to Hong Kong, Japan, Singapore, and South Korea.

** European Union/EEA refers to the 28 European countries that were part of the European Union as of 2013, plus Iceland, Liechtenstein, and Norway, which are part of the European Economic Area (EEA).

Source: MPI analysis of 2009-13 ACS and 2008 SIPP data from the U.S. Census Bureau, with legal status assignments by Bachmeier and Van Hook.

that college-educated immigrants in Ohio are doing somewhat better when it comes to employment at their skill levels than equivalent immigrants in other states. The hundreds of millions of dollars in forgone earnings for

underemployed immigrants in Ohio indicates, however, that more targeted work needs to be done to remove the unique barriers this population faces in the labor market.

Endnotes

- 1 Authors' tabulations of U.S. Census Bureau data from the 2015 American Community Survey (ACS).
- 2 The foreign born (or immigrants) are persons who were not U.S. citizens at birth. The U.S. born (or natives) are persons who were U.S. citizens at birth, even if they were born outside of the country.
- 3 See Jeanne Batalova, Michael Fix, and James D. Bachmeier, *Untapped Talent: The Costs of Brain Waste among Highly Skilled Immigrants in the United States* (Washington, DC: Migration Policy Institute, New American Economy, and World Education Services, 2016), www.migrationpolicy.org/research/untapped-talent-costs-brain-waste-among-highly-skilled-immigrants-united-states. State-level fact sheets examining brain waste for college-educated immigrants cover California, Florida, Michigan, New York, Ohio, Texas, and Washington, and can be found at www.migrationpolicy.org/topics/brain-waste-credential-recognition.
- 4 All estimates in this fact sheet refer to civilian adults ages 25 and older and are based on analysis of U.S. Census Bureau pooled 2009-13 ACS data unless otherwise stated. The data were pooled to increase the precision of the estimates. James Bachmeier at Temple University, in consultation with Jennifer Van Hook at The Pennsylvania State University and researchers at the Migration Policy Institute (MPI) developed techniques to link the ACS data to the Census Bureau's 2008 Survey of Income and Program Participation (SIPP) to allow for estimates by legal status. The 2009-13 data were the most recent at the time of the analysis.
- 5 The term "foreign educated" refers to immigrants who have at least a bachelor's degree and arrived in the United States at age 25 or later. They were likely to have obtained all of their formal education abroad; "U.S. educated" refers to college-educated immigrants who came to the United States before age 25 and are likely to have been educated in the United States.
- 6 Persons identified as Black, Asian, and White refer to non-Hispanic individuals. Persons identified as Hispanic are of any race.
- 7 The national report that accompanies this fact sheet employs logistic regression models to test the effect of place of education, time in the United States, level of educational attainment, English skills, race and ethnicity, and citizenship and legal status on the odds of low-skilled employment of immigrant men and women. The report finds that each of these variables had an independent and statistically significant impact on the likelihood of low-skilled employment. The analysis assumes that the relationships observed at the national level hold at the state level as well. See Batalova, Fix, and Bachmeier, *Untapped Talent*.
- 8 See WE Global Network, "WE Network Members," accessed October 4, 2016, www.weglobalnetwork.org/we-members/.
- 9 See Ohio Department of Higher Education, "About Ohio G.R.E.A.T.," accessed October 4, 2016, www.ohio-great.us/#/about-ohio.
- 10 MPI in 2008 first estimated the size of the immigrant population experiencing brain waste. See Jeanne Batalova and Michael Fix with Peter A. Creticos, *Uneven Progress: The Employment Pathways of Skilled Immigrants in the United States* (Washington, DC: MPI, 2008), www.migrationpolicy.org/research/uneven-progress-employment-pathways-skilled-immigrants-united-states.
- 11 The analysis of forgone earnings was done separately by place of education and gender. See Batalova, Fix, and Bachmeier, *Untapped Talent*, Appendix A-3 for additional discussion of the decomposition methodology. Estimates of unrealized tax contributions at the state and local level were computed for MPI by the Institute on Taxation and Economic Policy (ITEP). See Batalova, Fix, and Bachmeier, *Untapped Talent*, Appendix A-4 for additional discussion of the tax estimation methodology. The value of forgone federal taxes associated with low-skilled employment of immigrants in Ohio was not estimated.

- 12 The national report also estimates the amount of forgone federal taxes associated with immigrant low-skilled employment: approximately \$10.2 billion. See Batalova, Fix, and Bachmeier, *Untapped Talent*.
- 13 Persons who reported speaking English only or “very well” in the ACS are considered to be English proficient. Persons who reported speaking English “not well” or “not at all” are considered to have low levels of English proficiency.
- 14 Refers to master, doctoral, and professional degrees.
- 15 Foreigners on temporary visas include those on work visas such as the H-1B visa or the L-1 intracompany transferee visa, or international students on F-1 visas. To obtain an H1-B visa, for instance, foreign workers must have a sponsoring employer (i.e., they will have a job) and the position for which they are hired (in most cases) requires at least a bachelor’s degree (i.e., their job per the definition used in this fact sheet is “highly skilled”).
- 16 See Mary C. Waters and Marisa Gerstein Pineau, eds., *The Integration of Immigrants into American Society* (Washington, DC: The National Academies Press), www.nap.edu/catalog/21746/the-integration-of-immigrants-into-american-society.

About the Authors



Ariel G. Ruiz Soto is a Research Assistant at the Migration Policy Institute (MPI), where he provides quantitative research support across MPI programs. His research focuses on the impact of U.S. immigration policies on immigrant experiences of socioeconomic integration across varying geographical and political contexts. More recently, Mr. Ruiz Soto has analyzed methodological approaches to estimate sociodemographic trends of the unauthorized immigrant population in the United States.



Jeanne Batalova is a Senior Policy Analyst at MPI and Manager of its Data Hub, a one-stop, online resource that provides instant access to the latest facts, statistics, and maps covering U.S. and global data on immigration and immigrant integration. Her areas of expertise include the immigration and integration of highly skilled workers and foreign students in the United States and other countries; the impacts of immigrants on society and labor markets; and the social and economic mobility of immigrant-origin young adults.



Michael Fix is President of MPI, a position he assumed in 2014 after serving as CEO and Director of Studies. He joined the Institute in 2005, and was previously Senior Vice President and Co-Director of MPI’s National Center on Immigrant Integration Policy. His research focus is on immigrant integration and the education of immigrant children in the United States and Europe, as well as citizenship policy, immigrant children and families, the effect of welfare reform on immigrants, and the impact of immigrants on the U.S. labor force.

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The Migration Policy Institute (MPI) is an independent, nonpartisan, nonprofit think tank dedicated to the study of the movement of people worldwide. The Institute provides analysis, development, and evaluation of migration and refugee policies at the local, national, and international levels. It aims to meet the rising demand for pragmatic responses to the challenges and opportunities that migration presents in an ever more integrated world.

WWW.MIGRATIONPOLICY.ORG

New American Economy brings together more than 500 Republican, Democratic, and Independent mayors and business leaders who support sensible immigration reforms that will help create jobs for Americans today.

WWW.RENEWOURECONOMY.ORG

World Education Services (WES) is a nonprofit organization dedicated to helping immigrants in the United States and Canada achieve their academic and professional goals through the recognition of their education and training earned abroad. Its Global Talent Bridge program conducts outreach and provides training, tools, and resources designed to ensure the successful integration of immigrant professionals.

WES also hosts IMPRINT, a national coalition of nonprofit organizations that identifies and promotes best practices, and advocates for policies that facilitate the integration of immigrant professionals into the U.S. economy.

WES.ORG/GLOBALTALENTBRIDGE