

Brain Waste in the Maryland Workforce: Select Labor Force Characteristics of College-Educated Native-Born and Foreign-Born Adults

Research by the Migration Policy Institute (MPI) in the United States and Europe has demonstrated the challenges facing foreign-educated individuals who seek high-skilled employment that utilizes their talents and professional experience.¹ In the United States, these challenges include difficulties in obtaining recognition of professional experiences and credentials earned from educational institutions abroad, acquiring professional-level English skills, navigating costly or time-consuming recertification processes, and building professional networks and U.S. job search skills.

This fact sheet on Maryland is part of a series that assesses the extent of “brain waste” in the United States and twelve key states—that is, the number of college-educated immigrant² and native-born adults ages 25 and older who are either unemployed or have jobs that are significantly below their education and skill levels. The fact sheet also provides calculations of underutilization³ of education among immigrant and native-born professionals in Maryland with engineering, nursing, and teaching degrees at the undergraduate level.

Among the key findings:

- 43,600, or 20 percent, of the 222,900 college-educated immigrants ages 25 and older in the civilian labor force in Maryland are affected by brain waste—e.g. are in low-skilled jobs or are unemployed, according to MPI analysis of the most recent U.S. Census Bureau American Community Survey data.
- Brain waste particularly affects the foreign born in Maryland who earned their bachelor’s degrees abroad, with 23 percent in low-skilled jobs or unemployed.
- 18 percent of the state’s college-educated immigrants who obtained their academic degree abroad worked in low-skilled jobs, compared to 10 percent of college-educated native-born workers.

1. See, for example: Jeanne Batalova and Michael Fix with Peter A. Creticos, *Uneven Progress: The Employment Pathways of Skilled Immigrants in the United States* (Washington, DC: Migration Policy Institute, 2008), www.migrationpolicy.org/research/uneven-progress-employment-pathways-skilled-immigrants-united-states; Madeleine Sumption, *Tackling Brain Waste: Strategies to Improve the Recognition of Immigrants’ Foreign Qualifications* (Washington, DC: Migration Policy Institute, 2013), www.migrationpolicy.org/research/tackling-brain-waste-strategies-improve-recognition-immigrants%E2%80%99-foreign-qualifications.

2. The terms *immigrant* and *foreign born* are used interchangeably, and describe persons who had no U.S. citizenship at birth. This population includes naturalized citizens, lawful permanent residents (LPRs), certain legal nonimmigrants (e.g., persons on student or work visas), those admitted under refugee or asylee status, and persons illegally residing in the United States; the native born are persons born in the United States, U.S. outlying territories, or abroad to at least one U.S. citizen parent.

3. The terms *brain waste* and *skill underutilization* are used interchangeably and describe a phenomenon when college-educated persons are either unemployed or employed in *low-skilled jobs*, i.e., jobs that require only moderate on-the-job training or less, such as nursing, psychiatric, and home health aides, personal care aides, maids and housekeeping cleaners, taxi and truck drivers, and cashiers.

I. College-Educated Adults in the Maryland Civilian Labor Force by Nativity and Place of Education⁴

More than 1.1 million adults ages 25 and older engaged in the civilian labor force in Maryland have at least a bachelor’s degree, according to the most recent American Community Survey (ACS) data from the U.S. Census Bureau. Of these adults, about 222,900 are college-educated immigrants. While immigrants represent 14 percent⁵ of the overall Maryland population, they account for 20 percent of the college-educated civilian labor force.

We estimate that 122,400 (or 55 percent) of the 222,900 college-educated immigrants in the Maryland civilian labor force obtained their education abroad, with the remaining 100,500 U.S.-educated. These groups make up 11 percent and 9 percent of the overall Maryland college-educated civilian labor force respectively.

Table 1. College-Educated Adults in the Maryland Civilian Labor Force, by Nativity and Place of Education

	Native Born	Foreign Born		
		Total	Foreign-Educated Immigrants	U.S.-Educated Immigrants
College-educated civilian labor force	919,700	222,900	122,400	100,500
Share of all immigrants by place of education	--	--	55%	45%
Share of the total college-educated by nativity	80%	20%	11%	9%

Source: Migration Policy Institute (MPI) tabulation of U.S. Census Bureau pooled 2010-12 American Community Survey (ACS) data.

4. *College-educated civilian labor force*: defined as civilian adults ages 25 and older with at least a bachelor's degree who were either employed or unemployed but looking for work. Civilian labor force excludes members of the armed forces (Army, Navy, Air Force, Coast Guard, and Marines); *Place of education*: The ACS survey does not ask for respondents' place of education. We use the following definitions: *foreign-educated immigrants* are immigrants who have at least a bachelor's degree and who arrived to the United States at the age 25 or older; *U.S.-educated immigrants* are immigrants with at least a BA and who arrived to the United States before age 25.
5. U.S. Census Bureau, "Selected Social Characteristics in the United States 2012 American Community Survey 1-Year Estimates," accessed from American FactFinder, <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

II. College-Educated Native-Born and Foreign-Born Adults in Maryland by Job Skill and Place of Education with Number and Share Affected by Brain Waste

Among both native-born and foreign-born college-educated adults in Maryland, a majority of individuals are employed in high-skilled positions. Roughly 604,500 (66 percent) of native-born workers in the state are employed in high-skilled positions compared to about 88,700 (10 percent) employed in low-skilled positions. Among the foreign born, a smaller share—60 percent or 133,900—is employed in high-skilled jobs versus 32,400 (15 percent) in low-skilled jobs. Among college-educated immigrants, those educated in the United States are more likely to be employed in high-skilled jobs than those with foreign credentials (64 percent versus 57 percent). The greatest disparity exists between foreign-educated immigrants and their native-born and U.S.-educated counterparts: 18 percent of foreign-educated college graduates who are immigrants are employed in low-skilled jobs versus 10 percent and 11 percent of their U.S.-educated counterparts (native born and foreign born respectively).

Comparing college-educated native- and foreign-born individuals who are either employed in low-skilled jobs or unemployed, one finds that foreign-born individuals are also more generally affected by brain waste, with 20 percent in low-skilled jobs or unemployed compared to 13 percent of the native born. Among the foreign-born labor force, those educated abroad are again more likely to be affected by brain waste, with 23 percent in low-skilled jobs or unemployed compared to 13 percent of native-born college-educated adults and 16 percent of U.S.-educated immigrants.

Table 2. College-Educated Native-Born and Foreign-Born Adults in Maryland, by Job Skill and Place of Education with Number and Share Affected by Brain Waste

	Native Born	Foreign Born		
		Total	Foreign-Educated Immigrants	U.S.-Educated Immigrants
College-educated labor force	919,700	222,900	122,400	100,500
	100%	100%	100%	100%
Employed workers by job skill				
High-skilled	604,500	133,900	69,500	64,400
<i>Share high-skilled</i>	66%	60%	57%	64%
Middle-skilled	196,600	45,400	24,900	20,500
<i>Share middle-skilled</i>	21%	20%	20%	20%
Low-skilled	88,700	32,400	21,600	10,900
<i>Share low-skilled</i>	10%	15%	18%	11%
Unemployed	29,900	11,200	6,400	4,800
<i>Share unemployed</i>	3%	5%	5%	5%
Affected by brain waste				
Number (i.e., in low-skilled jobs or unemployed)	118,600	43,600	28,000	15,600
Share	13%	20%	23%	16%

Notes: High-skilled jobs require at least a four-year bachelor's degree plus a substantial amount of work-related skills, knowledge, or experience; Middle-skilled jobs typically require that workers have trained in vocational schools, have related on-the-job experience, or hold an associate's degree; Low-skilled jobs require only moderate on-the-job training or less. Unemployed refers to those adults who do not have a job but are looking for work.

Source: MPI tabulation of U.S. Census Bureau pooled 2010-12 ACS data.

III. Number and Share of Immigrants in Maryland with Engineering, Nursing, or Teaching Degrees Earned at the Undergraduate Level

Immigrants account for 20 percent of the Maryland college-educated labor force, but they are overrepresented among workers with both engineering and nursing bachelor’s degrees. Of the roughly 104,500 college-educated individuals who earned a bachelor’s degree in engineering, about 36,200 or 35 percent are foreign born; among the 42,400 with undergraduate degrees in nursing, 10,700 (25 percent) are foreign born. However, immigrants are underrepresented among those with teaching degrees—accounting for 13,700 or 12 percent of individuals in the workforce with a bachelor’s degree focused on teaching.

Table 3. Number and Share of Immigrants in Maryland with Undergraduate Engineering, Nursing, or Teaching Degrees

	Total College-Educated Labor Force	Foreign Born	Foreign-Born Share (%)
Persons with engineering major **	104,500	36,200	35%
Persons with nursing major ***	42,400	10,700	25%
Persons with teaching major ****	112,100	13,700	12%

Notes: The ACS requests degree major information only at the bachelor’s level. If a respondent earned a master’s degree the subject area would not be reflected in the data; if a respondent earned two bachelor’s degrees, each would be counted separately.

** Engineering or engineering technologies was indicated as the degree of field at the bachelor of arts (BA) or the bachelor of science (BS) level; *** Nursing was indicated as the degree of field at the BA/BS level; **** Education was indicated as the degree of field at the BA/BS level (e.g., general, elementary, early childhood, secondary teacher, or special needs education, mathematics, science, and computer teacher education, art and music education).

Source: MPI tabulation of the U.S. Census Bureau’s pooled 2010-12 ACS data.

IV. Adults in Maryland Who Earned Bachelor’s Degrees in Engineering, Nursing, or Teaching by Job Skill, Nativity, and Place of Education for Foreign Born

Engineering/engineering technology major college graduates. Though the majority of individuals with engineering degrees at the undergraduate level in Maryland are employed in high-skilled positions, significant disparities exist among native-born and foreign-born college graduates, especially for engineers who were educated abroad. Foreign-educated immigrant engineers are nearly four times as likely to be employed in a low-skilled job (11 percent) as their native-born counterparts (3 percent), and while 80 percent of native-born and 79 percent of U.S.-trained immigrant engineers are employed in high-skilled positions, only 70 percent of those educated abroad are.

Nursing major college graduates. Foreign -educated immigrants with a nursing bachelor’s degree are five times as likely to have a low-skilled job (15 percent) as their U.S.-born counterparts (3 percent), and only 20 percent work in high-skilled positions (compared to 26 percent of native-born college-graduates with a nursing degree).

Teaching major college graduates. Data on the underemployment of foreign-educated teachers show the greatest disparities of all three fields. Foreign-educated immigrant teachers are more than three times as likely to have low-skilled jobs (30 percent) as U.S.-born teachers (8 percent). While 74 percent of U.S.-born individuals with teaching degrees are employed in high-skilled jobs, only 43 percent of foreign-educated immigrants with a teaching degree and 61 percent of those educated in the United States hold high-skilled positions.

Table 4. Adults in Maryland with Bachelor’s Degrees in Engineering, Nursing, or Teaching by Job Skill, Nativity, and Place of Education for Foreign Born

	Native Born	Foreign-Educated Immigrants	U.S.-Educated Immigrants
Persons with engineering major at the BA/BS level**	68,300	21,200	15,000
High-skilled	80%	70%	79%
Middle-skilled	13%	16%	13%
Low-skilled	3%	11%	4%
Unemployed	3%	3%	3%
Persons with nursing major at the BA/BS level***	31,700	6,000	4,700
High-skilled	26%	20%	17%
Middle-skilled	69%	63%	68%
Low-skilled	3%	15%	11%
Unemployed	2%	2%	4%
Persons with teaching major at the BA/BS level****	98,400	9,900	3,800
High-skilled	74%	43%	61%
Middle-skilled	15%	17%	21%
Low-skilled	8%	30%	11%
Unemployed	3%	9%	8%

Notes: The ACS requests degree major information only at the bachelor’s level. If a respondent earned a master’s degree the subject area would not be reflected; if a respondent earned two bachelor’s degrees each would be counted separately.

** Engineering or engineering technologies was indicated as the degree of field at the bachelor’s level; *** Nursing was indicated as the degree of field at the bachelor’s level; **** Education was indicated as the degree of field at the bachelor’s level (e.g., general, elementary, early childhood, secondary teacher, or special needs education, mathematics, science, and computer teacher education, art and music education).

Source: MPI tabulation of U.S. Census Bureau pooled 2010-12 American Community Survey data.

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