

Brain Waste in the Texas 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 Texas 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 Texas with engineering, nursing, and teaching degrees at the undergraduate level.

Among the key findings:

- 108,800, or 20 percent, of the 556,000 college-educated immigrants ages 25 and older in the civilian labor force in Texas 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 Texas who earned their bachelor’s degrees abroad, with 22 percent in low-skilled jobs or unemployed.
- 17 percent of the state’s college-educated immigrants who obtained their academic degree abroad worked in low-skilled jobs, compared to 11 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 Texas Civilian Labor Force by Nativity and Place of Education⁴

More than 3.2 million adults ages 25 and older engaged in the civilian labor force in Texas 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 556,000 are college-educated immigrants. While immigrants represent 16 percent⁵ of the overall Texas population, they account for 17 percent of the college-educated civilian labor force.

We estimate that 300,300 (or 54 percent) of the 556,000 college-educated immigrants in the Texas civilian labor force obtained their education abroad, with the remaining 255,700 U.S.-educated. These groups make up 9 percent and 8 percent of the overall Texas college-educated civilian labor force respectively.

Table 1. College-Educated Adults in the Texas 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	2,714,000	556,000	300,300	255,700
Share of all immigrants by place of education	--	--	54%	46%
Share of the total college-educated by nativity	83%	17%	9%	8%

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 Texas 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 Texas, a majority of individuals are employed in high-skilled positions. Roughly 1,667,400 (61 percent) of native-born workers in the state are employed in high-skilled positions compared to about 291,700 (11 percent) employed in low-skilled positions. Among the foreign born, a smaller share—56 percent or 313,700—is employed in high-skilled jobs versus 81,500 (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 (60 percent versus 54 percent). The greatest disparity exists between foreign-educated immigrants and their native-born and U.S.-educated counterparts: 17 percent of foreign-educated college graduates who are immigrants are employed in low-skilled jobs versus 11 percent and 12 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 14 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 22 percent in low-skilled jobs or unemployed compared to 14 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 Texas, 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	2,714,000	556,000	300,300	255,700
	100%	100%	100%	100%
Employed workers by job skill				
High-skilled	1,667,400	313,700	161,400	152,200
<i>Share high-skilled</i>	61%	56%	54%	60%
Middle-skilled	655,400	133,500	71,600	61,900
<i>Share middle-skilled</i>	24%	24%	24%	24%
Low-skilled	291,700	81,500	50,400	31,000
<i>Share low-skilled</i>	11%	15%	17%	12%
Unemployed	99,400	27,400	16,900	10,500
<i>Share unemployed</i>	4%	5%	6%	4%
Affected by brain waste				
Number (i.e., in low-skilled jobs or unemployed)	391,200	108,800	67,300	41,500
Share	14%	20%	22%	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 Texas with Engineering, Nursing, or Teaching Degrees Earned at the Undergraduate Level

Immigrants account for 17 percent of the Texas college-educated labor force, but they are overrepresented among workers with both engineering and nursing bachelor’s degrees. Of the roughly 359,000 college-educated individuals who earned a bachelor’s degree in engineering, about 133,400 or 37 percent are foreign born. Among the 127,200 with undergraduate degrees in nursing, 32,300 (25 percent) are foreign born. However, immigrants are significantly underrepresented among those with teaching degrees—accounting for about 39,600 or 9 percent of the college-educated workforce.

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

	Total College-Educated Labor Force	Foreign Born	Foreign-Born Share (%)
Persons with engineering major **	359,000	133,400	37%
Persons with nursing major ***	127,200	32,300	25%
Persons with teaching major ****	426,300	39,600	9%

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 U.S. Census Bureau pooled 2010-12 ACS data.

4. Adults in Texas 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 Texas tend to be 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 more likely to be employed in a low-skilled job (9 percent) than their native-born counterparts (6 percent), and while 72 percent of U.S.-trained immigrant engineers are employed in high-skilled positions, only 68 percent of those educated abroad are.

Nursing major college graduates. Foreign -educated immigrants with a nursing bachelor’s degree are more than three times as likely to have a low-skilled job (10 percent) than their U.S.-born counterparts (3 percent), and only 12 percent work in high-skilled positions (compared to 24 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 three times more likely to have low-skilled jobs (24 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 44 percent of foreign-educated immigrants with a teaching degree and 63 percent of those educated in the United States hold high-skilled positions.

Table 4. Adults in Texas 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**	225,600	79,100	54,300
High-skilled	72%	68%	72%
Middle-skilled	18%	18%	17%
Low-skilled	6%	9%	8%
Unemployed	5%	6%	5%
Persons with nursing major at the BA/BS level***	94,900	20,000	12,400
High-skilled	24%	12%	16%
Middle-skilled	70%	75%	75%
Low-skilled	3%	10%	6%
Unemployed	3%	4%	2%
Persons with teaching major at the BA/BS level****	386,700	20,900	18,700
High-skilled	74%	44%	63%
Middle-skilled	15%	25%	20%
Low-skilled	8%	24%	14%
Unemployed	3%	6%	4%

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.

© 2014 Migration Policy Institute. All Rights Reserved.

This Fact Sheet was written by Jeanne Batalova, Margie McHugh, and Madeleine Morawski as part of a series on brain waste among high-skilled immigrants and refugees in the fields of engineering, nursing, and teaching. It is a project of the Migration Policy Institute's National Center on Immigrant Integration Policy and was produced with support from the J.M. Kaplan Fund. Additional fact sheets in this series and other MPI research on this topic can be found at www.migrationpolicy.org/topics/brain-waste-credential-recognition.

For questions or to arrange an interview, please contact Michelle Mittelstadt at 202-266-1910 or mmittelstadt@migrationpolicy.org.

No part of this publication may be reproduced or transmitted in any form by any means, electronic or mechanical, including photocopy, or any information storage and retrieval system, without permission from the Migration Policy Institute. A full-text PDF of this document is available for free download from www.migrationpolicy.org.

Information for reproducing excerpts from this Fact Sheet can be found at www.migrationpolicy.org/about/copyright-policy. Inquiries can also be directed to: Permissions Department, Migration Policy Institute, 1400 16th Street, NW, Suite 300, Washington, DC 20036, or by contacting communications@migrationpolicy.org.

Suggested citation: Batalova, Jeanne, Margie McHugh, and Madeleine Morawski. 2014. Brain Waste in the Texas Workforce: Select Labor Force Characteristics of College-Educated Native-Born and Foreign-Born Adults. Washington, DC: Migration Policy Institute.