



The Value of Foreign Degrees by Source Country

By Jason Richwine

Summary

Whether assessing the education level of recent arrivals or designing a “high-skill” system for selecting future immigrants, analysts should be careful not to treat foreign degrees as equivalent to U.S. degrees. Using data from the National Survey of College Graduates, this report shows not only that foreign degrees as a whole are less valuable in the U.S. than U.S. degrees, but also that their value varies substantially depending on the specific country or region where the degrees were earned.

The findings below refer to full-time U.S. workers with at least a bachelor’s degree:

- After controlling for a traditional set of earnings-related characteristics, foreign-educated immigrants earn 17 percent less than natives who were educated in the U.S.
- The foreign-degree penalty is driven primarily by immigrants educated in non-Western countries.
- Immigrants educated in Latin America (24 percent salary penalty), Eastern Europe (27 percent), China (28 percent), the Philippines (35 percent), and Africa (39 percent) all experience penalties that exceed the foreign-degree average.
- By contrast, immigrants educated in Western Europe, Australia, and India earn roughly the same salaries as comparable U.S. natives.
- Canadian-educated immigrants earn 20 percent *more* than U.S. natives.
- Controlling for the type of entry visa that each immigrant receives does not eliminate the variation in foreign-degree value.

Introduction

The average education level of immigrants has been rising. Between 2007 and 2021, the share of recent working-age immigrants with a bachelor’s degree rose from 34 percent to 49 percent.¹ While this trend is encouraging, researchers who assess immigrant skills may be skeptical about the marketability of foreign degrees in the U.S. Similarly, adopting an immigration system that favors “high-skill” immigrants is a common reform proposal, but how to rate applicants with foreign degrees remains unclear. Should researchers and policymakers assume that foreign degrees are equivalent to U.S. degrees?

The answer is no. Previous research from the Center shows that foreign-educated immigrants underperform U.S. degree holders on English-language tests of literacy, numeracy, and computer operations.² These findings are in line with a robust academic literature that finds lower returns to foreign schooling in both the U.S. and in the broader Western world.³ The disparity is partly due to the low transferability of certain skills, such as language-intensive tasks, but international comparisons suggest that learning standards for college degrees vary considerably throughout the world.⁴

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There are two data challenges involved in studying foreign-educated immigrants. First, most data sets do not explicitly identify the location where respondents earned their degrees. In this situation, researchers must use a respondent's age and year of arrival in the U.S. to impute foreign-degree status. The resulting imprecision causes the observed differences between foreign- and U.S.-degree holders to be biased downward.⁵ Second, data sets are often too small to analyze immigrants separately based on their home country or region. As a consequence, important source-country differences in the value of foreign degrees may remain hidden.

Data sets used by the Center in previous research typically have had one or the other limitation. For example, the Program for International Assessment of Adult Competencies (PIAAC) contains enough information to identify immigrants with foreign degrees, but its sample size is insufficient to compare subgroups of such immigrants. Conversely, the Census Bureau's American Community Survey (ACS) is large enough for detailed subgroup analyses, but it does not allow for precise identification of foreign-degree holders.

The National Survey of College Graduates (NSCG) overcomes this trade-off. It provides the country or region in which all respondents received their degrees, and although it is not nearly as large as the ACS, its sample of approximately 9,000 foreign-educated immigrants is sufficient for subgroup analyses. When Drexel University researchers analyzed the 2003 version of the NSCG, they found that the earnings of foreign-educated immigrants in the U.S. varied significantly by the country or region in which their degrees were earned, even after controlling for other earnings-related characteristics.⁶ This report updates and expands upon the Drexel analysis, using the 2019 version of the NSCG.⁷

Summary Statistics

All NSCG respondents have at least a bachelor's degree. Tables 1 through 3 display summary statistics on those who also work full-time and are between the ages of 20 and 64.⁸ The left-hand columns categorizes respondents by nationality and the location of their highest degree. The U.S.-born category refers to people born and educated in the U.S. (The small number of U.S.-born people with foreign degrees are not part of this analysis.) The immigrant categories refer to foreign-born people who received their highest degrees in either the U.S. or in a foreign country. Foreign-educated immigrants are further divided into the country or region where they obtained their degree.

Table 1. Summary Statistics by Country of Highest Degree: Demographics

| | Sample Size | Female | Married | Asian | Black | Hispanic |
|------------------------------|---------------|--------------|--------------|--------------|--------------|--------------|
| U.S.-Born | 41,541 | 49.0% | 60.9% | 4.3% | 9.0% | 7.2% |
| Immigrants | 14,168 | 43.3% | 72.5% | 52.3% | 10.6% | 17.5% |
| U.S. Degree | 9,114 | 46.0% | 65.7% | 53.1% | 13.3% | 17.8% |
| Foreign Degree | 5,054 | 39.1% | 83.1% | 51.1% | 6.4% | 17.1% |
| Immigrant Degree From... | | | | | | |
| Western Countries | 1,471 | 32.1% | 77.7% | 16.8% | 3.9% | 12.3% |
| Canada | 438 | 33.4% | 68.2% | 26.6% | 5.6% | 1.2% |
| UK, Ireland, Australia, NZ | 466 | 30.1% | 87.9% | 21.1% | 4.5% | 15.6% |
| Western Europe | 567 | 33.1% | 75.6% | 5.3% | 2.1% | 17.7% |
| Non-Western Countries | 3,472 | 41.1% | 84.7% | 59.8% | 7.1% | 18.4% |
| Eastern Europe | 512 | 39.3% | 81.2% | 1.0% | 0.5% | 7.0% |
| India | 821 | 31.9% | 91.4% | 99.6% | 0.3% | 0.0% |
| China | 343 | 47.5% | 81.6% | 99.9% | 0.1% | 0.0% |
| Philippines | 299 | 59.0% | 78.8% | 87.7% | 0.0% | 9.4% |
| Other Asia | 789 | 42.2% | 88.2% | 80.1% | 0.1% | 0.6% |
| Latin America | 540 | 42.7% | 80.1% | 1.7% | 12.7% | 85.0% |
| Africa | 168 | 18.9% | 82.1% | 2.4% | 70.2% | 0.2% |

Source: Author's analysis of 2019 National Survey of College Graduates. Full-time workers ages 20-64 with at least a bachelor's degree. "Western Europe" excludes UK and Ireland.

Table 1 establishes some demographic contrasts. For example, foreign-educated immigrants are substantially more likely to be married men than people who are U.S.-educated. In addition, about half of respondents in the immigrant category describe their racial background as Asian, compared to just 4.3 percent of the U.S.-born category. Many of the foreign-educated Asian immigrants received their degrees in Western countries. Among immigrants educated in Canada, for example, 26.6 percent were of Asian descent. Some were born in Canada, while others were born in an Asian country and moved to Canada for an education. In either case, they have since taken jobs in the U.S.

Skills and earnings data appear in Table 2. Perhaps surprisingly, both U.S.-educated and foreign-educated immigrants have higher median salaries than the U.S.-born. Clearly, most foreign-educated immigrants are not working for a pittance. However, two important caveats apply to this comparison. First, high median salaries among the foreign-educated are driven primarily by immigrants educated in Western countries. (“Western” in this context means Western Europe and its major Anglophone offshoots — Canada, Australia, and New Zealand.) As a group, immigrants educated in non-Western countries have a lower median salary than the U.S.-born. Second, foreign-educated immigrants differ from natives in other important ways. They are, for example, more than twice as likely to have STEM degrees. The next section attempts to isolate the earnings impact of a foreign degree by controlling for other earnings-related characteristics.

Table 2. Summary Statistics by Country of Highest Degree: Skills and Earnings

| | Age | Advanced Degree | STEM Degree | Years with Employer | Median Salary |
|------------------------------|-------------|-----------------|--------------|---------------------|------------------|
| U.S.-Born | 41.6 | 34.0% | 19.4% | 7.0 | \$74,000 |
| Immigrants | 42.8 | 47.0% | 42.5% | 6.5 | \$89,000 |
| U.S. Degree | 41.9 | 54.7% | 40.0% | 6.3 | \$92,000 |
| Foreign Degree | 44.4 | 35.0% | 46.3% | 6.8 | \$80,000 |
| Immigrant Degree From... | | | | | |
| Western Countries | 43.6 | 58.5% | 54.4% | 6.4 | \$113,000 |
| Canada | 43.0 | 37.9% | 66.7% | 7.0 | \$120,000 |
| UK, Ireland, Australia, NZ | 43.3 | 57.3% | 50.3% | 5.1 | \$120,000 |
| Western Europe | 44.3 | 75.2% | 48.8% | 7.2 | \$100,000 |
| Non-Western Countries | 44.6 | 28.4% | 44.1% | 6.9 | \$70,000 |
| Eastern Europe | 47.3 | 61.9% | 60.1% | 7.1 | \$75,000 |
| India | 41.3 | 34.8% | 77.6% | 6.8 | \$105,000 |
| China | 40.5 | 38.9% | 55.6% | 4.9 | \$60,000 |
| Philippines | 50.8 | 10.8% | 16.0% | 10.7 | \$60,000 |
| Other Asia | 43.7 | 24.9% | 39.2% | 6.2 | \$70,000 |
| Latin America | 44.7 | 26.2% | 33.5% | 6.7 | \$60,000 |
| Africa | 44.6 | 22.9% | 29.4% | 4.5 | \$42,000 |

Source: Author’s analysis of 2019 National Survey of College Graduates.
 Full-time workers ages 20-64 with at least a bachelor’s degree.
 “Western Europe” excludes UK and Ireland.

One of those earnings-related characteristics is the type of visa that immigrants first used to enter the U.S. Table 3 shows that 50.3 percent of Western-educated immigrants first entered the U.S. to take a temporary job, compared to just 30.7 percent of non-Western-educated immigrants. Also notable is the contrast between Indian- and Chinese-educated immigrants, with the latter far less likely to have first entered for temporary work.

Table 3. Summary Statistics by Country of Highest Degree: Entry Visa Type

| | Permanent Resident | Temp. Job | Temp. Train/Study | Dependent of Temp. |
|------------------------------|---------------------------|------------------|--------------------------|---------------------------|
| U.S.-Born | N/A | N/A | N/A | N/A |
| Immigrants | 34.6% | 15.7% | 27.2% | 12.9% |
| U.S. Degree | 39.0% | 3.4% | 35.0% | 13.8% |
| Foreign Degree | 27.7% | 34.6% | 15.1% | 11.6% |
| Immigrant Degree From... | | | | |
| Western Countries | 14.1% | 50.3% | 17.1% | 11.2% |
| Canada | 10.9% | 53.4% | 7.6% | 7.9% |
| UK, Ireland, Australia, NZ | 14.1% | 51.9% | 10.8% | 22.3% |
| Western Europe | 16.5% | 46.5% | 30.1% | 3.5% |
| Non-Western Countries | 31.3% | 30.7% | 14.1% | 11.8% |
| Eastern Europe | 41.1% | 20.3% | 12.1% | 9.2% |
| India | 11.1% | 63.0% | 6.6% | 16.7% |
| China | 9.2% | 18.8% | 35.6% | 14.9% |
| Philippines | 46.5% | 26.6% | 3.9% | 12.4% |
| Other Asia | 30.5% | 25.2% | 20.4% | 11.1% |
| Latin America | 40.0% | 19.9% | 16.5% | 9.9% |
| Africa | 42.1% | 20.1% | 9.7% | 5.7% |

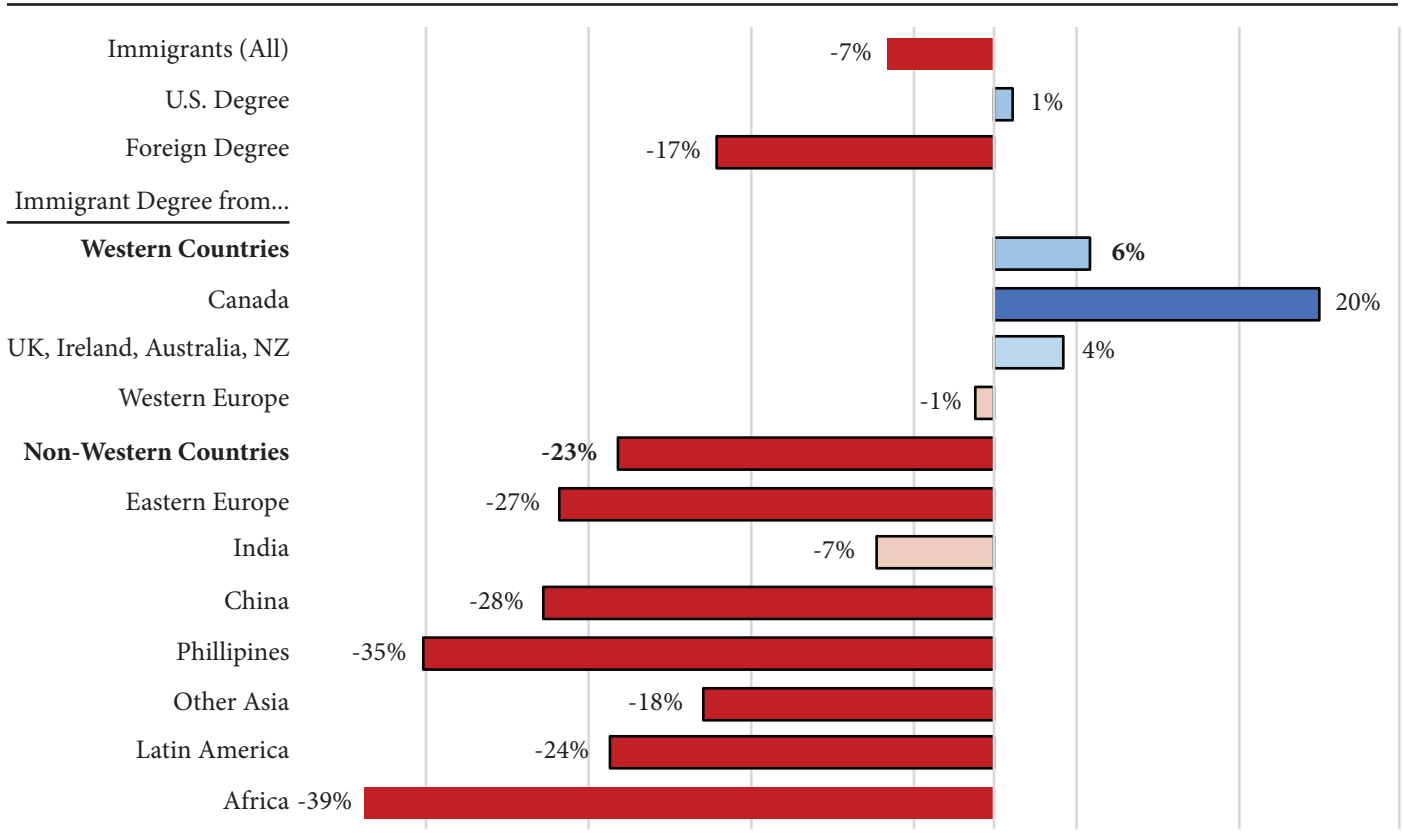
Source: Author’s analysis of 2019 National Survey of College Graduates.
 Full-time workers ages 20-64 with at least a bachelor’s degree.
 “Western Europe” excludes UK and Ireland.

Analytical Results

As noted above, simple averages are not enough to assess how a foreign degree affects an immigrant’s earnings in the U.S. Those averages could be affected by other ways in which foreign-educated immigrants differ from their U.S.-educated counterparts. For example, the tables show that foreign-educated immigrants are more likely to be married men with STEM degrees. Each of those traits is associated with higher earnings in the U.S., but none is the result of having a foreign degree, per se. This section uses regression analysis to measure salaries after controlling for a traditional set of covariates — age, years of experience at the current job, employer size, sex, race, marital status, region of the U.S., public-sector employment, advanced degree status, and STEM degree status.

Figure 1 displays the immigrant salary premium (positive number in blue) or penalty (negative number in red) compared to the U.S.-born after controlling for the factors listed above. Dark red and dark blue indicate that the difference is statistically significant at the 95 percent level, while light red and light blue indicate that the difference does not reach significance at that level.⁹

Figure 1. Full-Time Salaries Among College Graduates in the U.S.: Immigrant Salary Premium (+) or Penalty (-) Compared to Natives



Source: Author's analysis of 2019 National Survey of College Graduates.
 Dark red and dark blue indicate statistical significance ($p < .05$).
 Light red and light blue indicate no statistical significance ($p > .05$).
 Comparisons are adjusted for socioeconomic and demographic differences; see text for details.
 "Western Europe" excludes UK and Ireland.

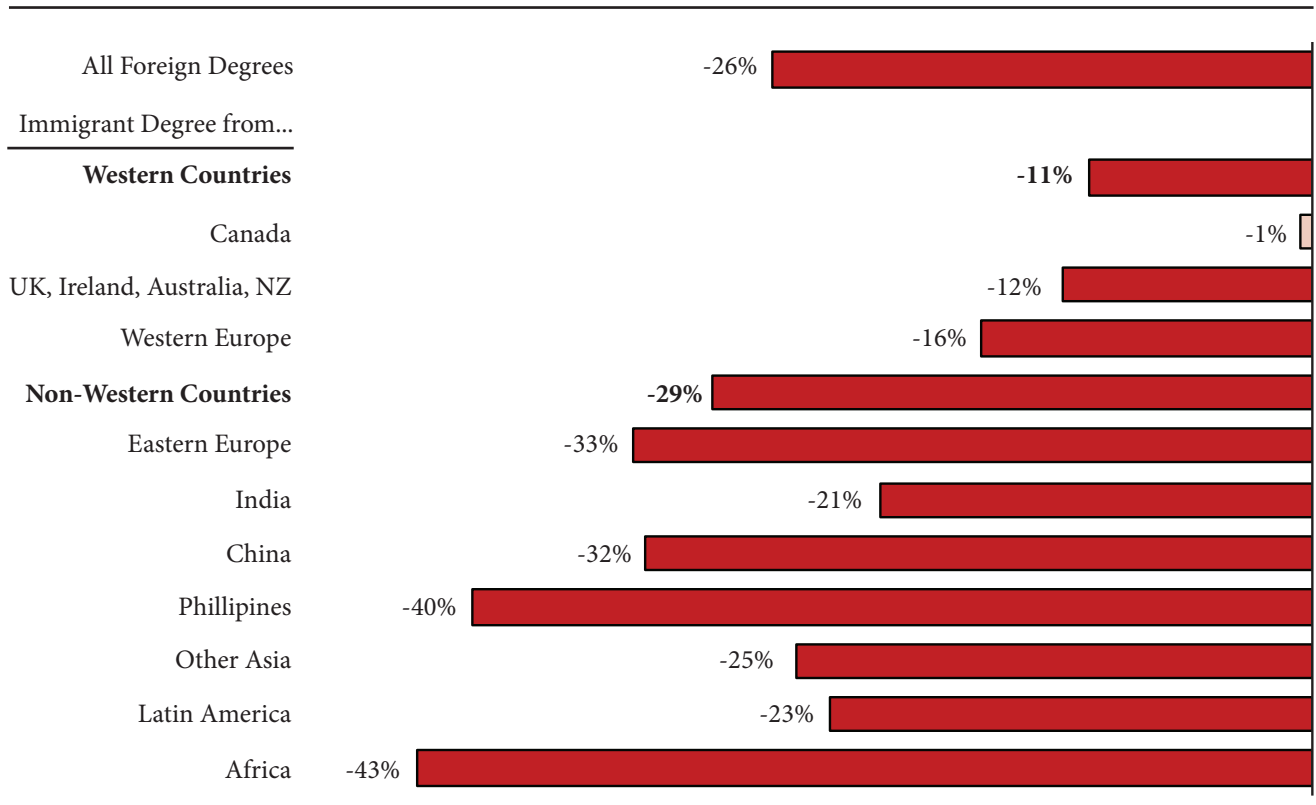
The top portion of the figure shows that immigrants as a whole earn 7 percent less than comparable natives. However, that average disguises a dramatic difference based on where the immigrants received their degrees. U.S.-educated immigrants earn a statistically insignificant 1 percent premium over natives, while foreign-educated immigrants suffer a significant 17 percent penalty.

Subdividing the foreign-degree holders reveals further important differences. Canadian-educated immigrants earn 20 percent more than comparable natives, and immigrants from other Western countries earn about the same as natives. By contrast, immigrants educated in non-Western countries experience a large and significant salary penalty, with the important exception of India. These results imply that the value of a foreign degree depends substantially on the specific country or region where the degree was earned.

Perhaps those differences are driven by the types of visas that immigrants from each country receive. For example, Table 3 shows that 53.4 percent of Canadian-educated immigrants first entered the U.S. for temporary jobs, compared to just 18.8 percent of Chinese-educated immigrants. By itself this could be evidence that Canadian degrees are more valuable, since employers choose to sponsor proportionally more Canadians than Chinese for U.S. jobs. But even if we treat entry visas as an independent variable, the substantial variation in salaries across countries remains.

Figure 2 repeats the analysis from Figure 1, except controls for visa type have been added, and the regression is now limited to immigrants. The comparison group is U.S.-educated immigrants instead of natives. Under this specification, a foreign-educated immigrant earns 26 percent less than a U.S.-educated immigrant with the same entry visa and other characteristics. While Canadian-educated immigrants earn about the same salaries as U.S.-educated immigrants, immigrants educated in the other Western countries experience salary penalties. Non-Western-educated immigrants suffer even larger penalties. Clearly, controlling for the type of entry visa does not eliminate the large and varying effects of foreign degrees on salaries.

Figure 2. Full-Time Salaries Among College Graduates in the U.S.: Foreign-Educated Salary Penalty (-) Compared to U.S.-Educated Immigrants With Added Controls for the Type of Entry Visa



Source: Author’s analysis of 2019 National Survey of College Graduates.

Dark red indicates statistical significance ($p < .05$).

Light red indicates no statistical significance ($p > .05$).

Comparisons are adjusted for socioeconomic and demographic differences; see text for details.

“Western Europe” excludes UK and Ireland.

Discussion and Conclusion

This report does not attempt to weigh all the costs and benefits of high-skill immigration. However, it does caution that assuming U.S. degrees and foreign degrees have equivalent value in the American labor market is a mistake. In fact, foreign-educated immigrants earn 17 percent less than natives after controlling for a full set of earnings-related characteristics.

More importantly, the value of foreign degrees varies substantially depending on the specific country or region where the degrees were earned. Western-educated immigrants earn about the same salaries as comparable natives, and immigrants educated in Canada actually earn 20 percent *more*. By contrast, immigrants educated in non-Western countries receive 23 percent less than comparable natives. The penalties are especially large in the categories of Eastern Europe (27 percent), China (28 percent), and Africa (39 percent). India is the only non-Western country without a statistically significant foreign-degree penalty.

By securing work visas disproportionately for immigrants educated in Western countries and India, American businesses perhaps recognize that the value of foreign degrees varies. Nevertheless, controlling for the type of entry visas received by immigrants does not eliminate the substantial variation in their U.S. salaries.

An important question is whether that variation could be reduced or eliminated by controlling for other measurable skills. The regressions that generated the wage effects in Figure 1 and Figure 2 contain a rich set of control variables, but skills unmeasured in the NSCG may provide additional insight. For example, attending English-speaking universities likely gives Indian-educated immigrants an advantage over their Chinese-educated counterparts. A control for English ability, which is unavailable in the NSCG, could help shrink the observed salary difference between the two groups. (English is not the only factor that matters, however, as Canadian-educated immigrants substantially out-earn immigrants educated in the UK.)

Supporters of high-skill immigration should further investigate how to ensure that foreign-educated immigrants in the U.S. are as skilled as those who are U.S.-educated. Even proposals that acknowledge the issue still have room for improvement. The RAISE Act, for example, would establish a points system that wisely prioritizes U.S. degrees over foreign degrees, but it would not distinguish among foreign degrees themselves. As this report has shown, a Canadian degree is substantially more valuable than a Chinese degree, but the RAISE Act would treat them as equivalent.

In the absence of supplemental information, lawmakers should consider varying the points credited for foreign degrees based on the country or region where they were earned. Alternatively, points systems could consider supplementary skill measures such as an English test, which the RAISE Act does require, or other standardized tests that measure scientific knowledge and abilities.

End Notes

¹ These numbers are calculated from the Annual Social and Economic Supplement of the Current Population Survey. “Working-age” is 25 to 65, and “recent” immigrants arrived within the last five years of each survey.

² Jason Richwine, [“Foreign-Educated Immigrants Are Less Skilled Than U.S. Degree Holders”](#), Center for Immigration Studies, February 24, 2019.

³ For a review, see Bram Lancee and Thijs Bol, [“The Transferability of Skills and Degrees: Why the Place of Education Affects Immigrant Earnings”](#), Social Forces, Vol. 96, No. 2, December 2017.

⁴ Jason Richwine, [“The Skill Level of the Average College Graduate Varies Enormously Across Countries”](#), Center for Immigration Studies, April 19, 2019.

⁵ Another example of classical measurement error might help illustrate the concept: Adult men are an average of 5.5 inches taller than adult women when both sexes are correctly identified and grouped. But what if we randomly misidentified some men as women and vice versa? The men in the women’s group would likely raise the “female” average height, and the women in the men’s group would lower the “male” average height. The more people we randomly misidentify, the more the two averages will even out. Eventually, in a situation where everyone’s sex is randomly assigned, we should expect zero height differences between the two groups.

⁶ Neeta P. Fogg and Paul E. Harrington, [“The Earnings of Foreign-Educated College Graduates”](#), Center for Labor Markets and Policy, Drexel University, March 2012.

⁷ Sponsored by the National Science Foundation (NSF) and conducted by the Census Bureau, the NSCG provides detailed demographic and earnings data on a large sample of American residents who have at least a bachelor’s degree. The microdata are publicly available for [download](#). However, the files that contain replicate weights and imputation flags must be specially requested. Lynn Milan (lmilan@nsf.gov) at NSF was very helpful.

⁸ To be more precise, this report focuses on the 2019 NSCG’s approximately 56,000 full-time, full-year workers who were between the ages of 20 and 64 and had non-imputed, non-outlier salaries. (The effective range was \$15,000 to \$400,000 per year.) Salaries refer to base pay at the respondent’s principal job. Alternative specifications involving different measures of earnings and work time produced similar results but with inferior model fits.

⁹ All significance tests are calculated from replicate weights, which adjust for the NSCG’s complex sampling design. Use of the conventional weights would make the salary impacts appear more highly significant than they actually are.