

# The Diversity Visa

## Part of a Merit-Based Immigration System

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### Executive Summary

This brief examines the oft-maligned Diversity Visa in the context of merit-based and growth-oriented immigration. The program is often seen as one that should be ended in a shift toward a more merit-based system. This brief argues that this conventional wisdom is misguided. Far from undermining a merit-based and growth-oriented immigration system, the Diversity Visa program itself *does* select for merit and *contributes* to growth. Diversity-based immigration should thus be considered an important component of an immigration system designed to foster economic growth.

As to merit, the brief looks at the skill levels of actual immigrants who obtained green cards on the basis of the Diversity Visa program. It finds that, contrary to popular perception, diversity immigrants have higher skill levels than other immigrants and than native-born Americans.

As to growth, the brief presents new evidence that diversity immigration encourages high-skilled migration through other channels too—that more DV immigration from a country is associated with higher migration of high-skilled temporary workers from that country in the future. The brief also reviews the literature on the spillover economic effects of immigrant diversity. That literature overwhelmingly supports the notion that immigrant diversity promotes growth, innovation, employment, and other positive economic outcomes.

## Introduction

The Diversity Visa (DV) program—or the “green card lottery”—was conceived in 1990 and began in 1995 as an answer to public demand and lobbying efforts to increase legal immigration from Ireland specifically, without giving the Irish special treatment. The program was also an answer to the call of the Select Commission on Immigration and Refugee Policy, which had in 1981 declared that the U.S. immigration system should clearly serve three goals, one of which was “cultural diversity.”<sup>1</sup>

The DV program addressed both concerns by establishing one immigration pathway that has selected immigrants explicitly to increase the diversity of immigrants with respect to their birth countries.

Every year, it offers 50,000 immigrant visas, to eligible applicants born in countries that send few immigrants to the United States. Those born in countries that send more than 50,000 immigrants in the prior five years are excluded. Visas are awarded by lottery within six regional allotments that further diversify the global distribution of DV immigration.

The DV is one of the only ways that people from many low-sending countries have any opportunity to immigrate to the United States. Notably, the program is the most common category used by African immigrants.

Both the 2013 comprehensive immigration reform package favored by President Obama and the 2017 immigration reform plan favored by President Trump would have ended the DV program.

<sup>1</sup> *U.S. Immigration Policy and the National Interest: The Final Report and Recommendations of the Select Commission on Immigration and Refugee Policy With Supplemental Views by Commissioners* (U.S. Congress, Select Commission on Immigration and Refugee Policy, March 1, 1981), 135.

<sup>2</sup> Guillermina Jasso et. al. “The New Immigrant Survey 2003 Round 1/2 (NIS-2003-1/2) Public Release Data” (March 2006/April 2014). The major drawback of the NIS is that its most recent cohort received immigrant visas between May and November 2003. However, a recent report used data from the Census Bureau’s

The common justification for ditching the program (although under very different proposals) rested on two mistaken beliefs: that the program does not bring in skilled immigrants and that economic growth is best promoted without explicit selection on the basis of diversity.

Neither premise is true. DV holders are in fact skilled, more so than other immigrants or native-born Americans. Furthermore, not only does the program promote growth directly by increasing the skilled labor force; by diversifying immigrant inflows it also provides positive economic spillover effects that raise the productivity of other workers.

The program’s progenitors intended to broaden the reach of the American dream, which they doubtlessly have. And whether they intended it or not, they also invented a useful tool to *amplify* the benefits of immigration by creating a program that *complements* other growth-oriented immigration programs.

## I. The Myth of the Unskilled Diversity Visa Immigrant

Diversity Visa immigrants are skilled. Indeed, the best available data indicate that DV immigrants have higher average skill levels than both native-born American adults and other adult immigrants.

The New Immigrant Survey (NIS) was a nationally representative study of new legal immigrants that produced the most recent data available on the skill levels of immigrants by their class of admission.<sup>2</sup> To compare the skill levels of diversity immigrants and native-born Americans, we can supplement NIS data with data from the same months from the Integrated Public Use Microdata Series (IPUMS), compiled from the Census Bureau

American Community Survey data to look at more recent immigrants from countries for which the DV program is a significant source of U.S. migration. It found similar results as this brief, giving us confidence that the NIS remains a relevant source of data, even if average immigrant education has not remained constant (indeed, it has increased). See Julia Gelatt, “The Diversity Visa Program Holds Lessons for Future Immigration Reform” (Washington, D.C.: Migration Policy Institute, February 2018).

and Labor Department’s Current Population Survey (CPS).<sup>3</sup>

We identify four indicators of skill level to compare adult immigrants: educational attainment and English proficiency soon after receiving an immigrant visa and employment status and earnings about five years later.

IPUMS does not include a comparable question to NIS’s language proficiency questions (although it is safe to assume native-born Americans speak better English on average), but it does have comparable questions on educational attainment, employment status, and earnings. The results are summarized in Table 1 below, with more technical details available in the appendix.

**Table 1: Skill Levels of Diversity Visa Immigrants, Other Immigrants, and Native-born Americans**

	DV		Non-DV		Native-born	
	Mean	Median	Mean	Median	Mean	Median
Education	2.2	3	1.4	1	1.6	1
Unemployment	.056	0	.093	0	.041	0
Earnings	33,110	25,000	40,697	29,980	39,156	28,000
English	2.3	2	2.5	3	--	--

Source: NIS and IPUMS. Means and medians are weighted. Educational attainment is the highest degree completed, where 0=less than high school, 1=high school, 2=associate’s, 3=bachelor’s, 4=master’s, 5=professional, and 6=doctorate. Unemployment is if a person is in the labor force and without work, where 0=not unemployed and 1=unemployed. Earnings are personal, not household, yearly pre-tax earnings. English is self-reported ability to speak English, where 1=“very well,” 2=“well,” 3=“not well,” and 4=“not at all.”

Three of our four indicators of skill level—educational attainment, employment status, and English proficiency—show statistically significant differences between DV immigrants and other immigrants. Details on significance testing may be found in the appendix. Only one—educational attainment—shows a statistically significant difference between DV immigrants and native-born Americans:

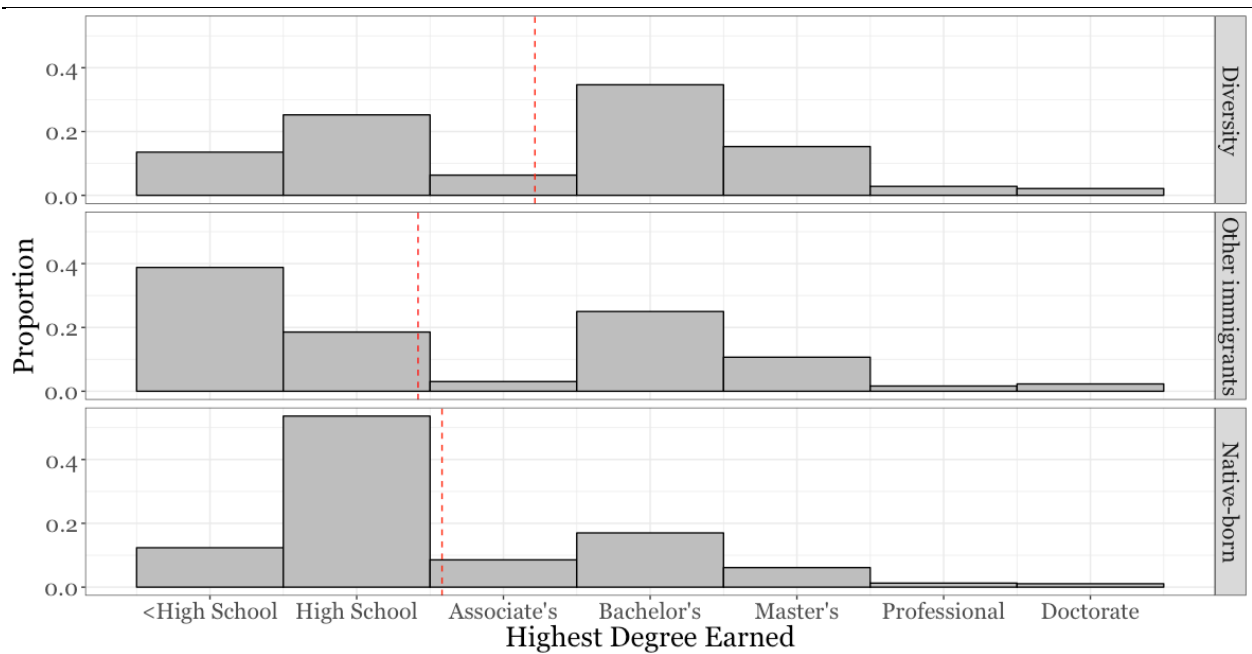
- *DV immigrants have higher educational attainment than both other immigrants and native-born Americans.* The median diversity-based immigrant has a bachelor’s degree while the median nondiversity immigrant and the median native adult<sup>4</sup> have only a high school diploma. A more complete breakdown of educational attainment by category is available in Figure 1 below.
- *The rate of unemployment among diversity-based immigrants is lower than that of other immigrants.* During the period the survey was conducted, unemployment was at 5.6 percent among DV and 9.3 percent among other immigrants.
- *Diversity-based immigrants are more fluent in English than their nondiversity counterparts.* Both the median DV immigrant and non-DV immigrant speak and understand English well, but whereas only 6 percent of new diversity immigrants speak English “not at all,” the rate among other new immigrants is 22 percent.

<sup>3</sup> Sarah Flood et. al. “Integrated Public Use Microdata Series, Current Population Survey: Version 6.0 [dataset]” (Minneapolis, MN: IPUMS, 2018).

<sup>4</sup> This holds whether the sample of native-born adults includes all those 18 and older, which is the age range of

the NIS sample, or whether it is restricted to those 25 and older. It is also even considering the less-skilled adult derivatives of lottery winners as part of the Diversity-based sample.

**Figure 1: Educational Attainment of Diversity Visa Immigrants, Other Immigrants, and Native-born Americans**



Source: NIS and IPUMS. Dotted red line indicates mean values.

Every statistically significant difference between diversity immigrants and the comparison groups shows diversity-based immigrants with a higher skill level. Diversity immigrants’ skill advantage is all the more striking when we consider that not all new green card recipients are new arrivals to the United States: 91 percent of diversity immigrants in the NIS cohort were new arrivals, compared to only 41 percent of other immigrants, meaning that diversity immigrants had spent considerably less time in the United States on average by the time they were surveyed.

### Merit Selection Under the DV

While the Diversity Visa does not select explicitly on the basis of skill, we should not be surprised that it still ends up bringing in such relatively skilled immigrants.

First, the program explicitly sets a lower bound on the skill level required of an applicant. Eligibility

for the program requires “successful completion of a 12-year course of formal elementary and secondary education” or “two years of work experience...requiring at least two years of training and experience to perform.”<sup>5</sup>

This is not a trivial requirement. The most recent data indicate that only 53 percent of adults worldwide have completed upper secondary school.<sup>6</sup> As for the alternative work requirement, the State Department informs applicants that they will need two years of experience in occupations classified by the Labor Department as Job Zone 4 or 5, which the Labor Department describes as generally requiring a four-year bachelor’s degree or graduate school degree respectively.<sup>7</sup> In other words, the work requirement constitutes a higher hurdle than the education requirement.

Second, and even more significantly, the DV program has, in the words of two Penn State

<sup>5</sup> “Instructions for the 2019 Diversity Immigrant Visa Program (DV-2019)” (U.S. Department of State, Bureau of Consular Affairs). Similar, if not identical, instructions were given for every prior year of the program.

<sup>6</sup> Statistical Table 3, *Global Education Monitoring Report* (Paris: UNESCO, 2014).

<sup>7</sup> “Instructions,” U.S. Department of State. See also “Job Zones,” O\*NET OnLine, U.S. Department of Labor.

immigration scholars, “an in-built skills-selective mechanism.”

Professors B. Ikubolajeh Logan and Kevin J. A. Thomas described the “inherently skills-selective” nature of the program in a study on the program’s transfer of skills from Africa.<sup>8</sup> They point out that even someone who has won the lottery faces high costs in getting a green card, including but not limited to costs involved in conducting interviews at a U.S. embassy, plane tickets to the United States, and application fees of over \$300 per person. These costs routinely total even more than the average yearly income of some countries of origin.

Such costs prove prohibitive for most low-skilled individuals and are more feasible for skilled professionals. Logan and Thomas conclude that:

the available data indicate that the enormous costs involved in translating a lottery win to an actual DV dictate that only a few well-placed Africans, typically PTKs [professional, technical, and kindred workers] rather than mere high school graduates, are likely to be able to afford to participate....The programme has made it possible for the U.S. to become more competitive for PTKs from non-traditional African countries of origin.<sup>9</sup>

## II. The Economic Benefits of Immigrant Diversity

The discussion in the previous section has established that the Diversity Visa program brings in immigrants of above-average skill levels and raises the average skill level of American adults, making it a valuable part of our present immigration system’s growth-promoting effects.

<sup>8</sup> B. Ikubolajeh Logan and Kevin J. A. Thomas, “The U.S. Diversity Visa Programme and the Transfer of Skills from Africa,” *International Migration* 50, no. 2 (2012): 1-19.  
<sup>9</sup> *Ibid.* It says much about the magnitude of the Diversity Visa’s inherent skills-selection that Logan and Thomas were writing with an eye toward policies that African states could take to respond to significant skill flow associated with the Diversity Visa. While their paper is agnostic as to the net effect of such skill flows, they are clear that there are benefits to African economic

development associated with them. For a persuasive argument that skill flow—often pejoratively referred to as “brain drain”—does not justify immigration restrictions, see Michael Clemens, “A Case Against Taxes and Quotas on High-Skill Emigration,” *Working Paper* 363 (Washington, D.C.: Center for Global Development, May 2014). For the sake of our discussion, it suffices to say that the fact such questions are raised at all indicates that DV immigrants are, in fact, skilled.

But that is by itself insufficient to establish that the program should *still* be attractive to growth-oriented policymakers considering *alternative* means to bring in even higher-skilled immigrants. Yet, it turns out that the program indirectly provides *other* benefits that would be missed by selection on the basis of skill alone. First, diversity-based immigration increases the high-skilled labor supply by increasing the number of high-skilled temporary workers who want to come from DV-sending countries. Second, diversity itself has positive spillover effects on economic outcomes.

Since we should expect foreign-born individuals to be more willing to work abroad where there are larger communities from their own country, we should expect that the DV widens the flows from low-immigration countries through other visa channels that *do* select explicitly on the basis of merit. The DV thus increases the direct benefits associated with *other* migration channels too.

Using yearly Department of Homeland Security data on admissions by visa category and country, we look at H-1Bs, the primary visa program for high-skilled temporary workers, and find that the amount of Diversity Visas awarded to immigrants from a country for a given year is positively correlated with H-1B workers from that country in the next year. That effect is statistically significant and holds when we control for H-1Bs in the first year and other variables. See Table 2 below.

**Table 2: DV Flows From a Country Predict Future H-1B Flows From That Country**

	(1)	(2)
DV <sub>it-1</sub>	.019* (.007)	.024** (.008)
H-1B <sub>it-1</sub>	.658** (.014)	.661** (.014)
Other Immigrants <sub>it-1</sub>	--	-.040** (.011)
Other Nonimmigrants <sub>it-1</sub>	--	.027 (.015)
Fixed effects	Yes	Yes
R <sup>2</sup>	.976	.976
N	3,273	3,263

Source: DHS. \* indicates  $p < .05$ , \*\* indicates  $p < .01$ . Effects from log-log country fixed-effects model on H-1B admissions from country  $i$  at time  $t$ . All variables are transformed by adding one before taking natural logarithms.

What this means for policymakers is that in addition to bringing in skilled immigrants directly, the Diversity Visa program also makes the United States more attractive for skilled migrants who can use other legal pathways into the country, broadening the pool of applicants who can be selected on other valuable bases besides diversity.

That more DV-immigration from a country in one year predicts more H-1B holders from that country in the next year hints at the cascading effects that ending the Diversity Visa could have throughout the immigration system and on the economy.

The benefits of immigration on economic performance are not limited to the effect immigrants and temporary workers have on the size and skill-composition of the labor force. Economists have also discovered that the level of diversity among immigrants can amplify those benefits by increasing innovation and the number of choices available to actors in the market. While diversity can also be associated with higher transaction costs and lower trust,<sup>10</sup> the empirical

<sup>10</sup> See Peter Thisted Dinesen and Kim Mannemar Sønderskov. "Ethnic Diversity and Social Trust: A Critical Review of the Literature and Suggestions for a Research Agenda," in *The Oxford Handbook of Social and Political Trust* (Oxford University Press, 2018).

<sup>11</sup> Gianmarco I.P. Ottaviano and Giovanni Peri, "The economic value of cultural diversity: evidence from US

research overwhelmingly finds that the net effect on productivity is positive and the benefits broadly distributed, accruing to business and labor, immigrant and native alike.

The seminal work on the effect of diversity on productivity is a 2006 study by Gianmarco I.P. Ottaviano and Giovanni Peri in the *Journal of Economic Geography*.<sup>11</sup> They designed an index of fractionalization which looked at how diverse U.S. cities were by the countries of origin of their residents. The index would be zero in a city with no foreign-born residents and one in a city where every single resident was born in a different country.

This index enabled them to look at more than just the effect of the share of immigrants, as most studies on the effects of immigration on economic performance do, but also on the effects of diversity within the immigrant community. In fact, they were able to decompose the effects of immigration on the wages of natives into two parts: the effect of changes in the share of immigrants and the effect of changes in the diversity *among immigrants*, which is precisely what is relevant to evaluating the value of a policy like the DV program. What they found was that even holding the *share* of immigrants constant, greater diversity *among* immigrants raises the wages of natives. Reform proposals that do away with diversity-based selection do not pay enough attention to capturing these gains.

Earlier this year, yet another study<sup>12</sup> published in the *Journal of Economic Geography* used even better data to investigate the *distribution* of the gains associated with and caused by diversity among immigrants.

Ottaviano and Peri, and many of the economists who followed them, were limited by city-level data. The authors of the latest study, Thomas Kemeny and Abigail Cooke, were able to use data at the

cities," *Journal of Economic Geography* 6 (January 2006): 9-44.

<sup>12</sup> Thomas Kemeny and Abigail Cooke, "Spillovers from immigrant diversity in cities," *Journal of Economic Geography* 18 (2018): 213-245.

level of individual workers and workplaces. First, they found more evidence for the positive effect of diversity—at both the city level and the workplace level—on the wages of natives. In other words, if a firm’s employees become more diverse, the workers at that firm will see their pay increase—and even workers in a city with an increase in diversity who do not work at a firm with any change in diversity will also see higher pay. Second, the researchers found that the benefits were consistent across the entire labor market, shared just as much by low-wage workers as others.

The pioneering findings of Ottaviano and Peri kicked off much research on the economic effects of diversity. The literature they began confirms the positive effects of diversity on native wages in the United States and also finds it holds in other countries<sup>13</sup> and across countries.<sup>14</sup> In addition to the wage effect, the literature also reveals other positive<sup>15</sup> economic effects besides that on wages: on employment,<sup>16</sup> on employment growth,<sup>17</sup> on innovation at the regional level,<sup>18</sup> on innovation at

the individual level,<sup>19</sup> on innovation diffusion,<sup>20</sup> on historic economic growth,<sup>21</sup> and on modern economic growth.<sup>22</sup> All of these effects from diversity are *in addition* to the positive effects associated with immigration broadly.<sup>23</sup>

The Diversity Visa program clearly helps the United States capture some of these benefits. Many reform proposals designed to modernize American immigration to promote economic growth through merit-based immigration have included ending the diversity lottery.<sup>24</sup> Such proposals would capture many of the economic gains associated with immigration, but the potential benefits from diversity are left untapped. They don’t need to be.

### III. Reform

The Diversity Visa program attracts immigrants who are valuable for the skills they can directly contribute to the economy, for their magnet effect on other skilled workers from their country, and

<sup>13</sup> Elena Bellini et. al., “Cultural Diversity and Economic Performance: Evidence from European Regions,” *Working Papers* (Milano: Fondazione Eni Enrico Mattei, 2009).

<sup>14</sup> Alberto Alesina et. al., “Birthplace Diversity and Economic Prosperity,” *Working Papers* (Department of Economics, Harvard University, 2015).

<sup>15</sup> The effect on housing seems the only area where the research is ambiguous. While the consensus following Ottaviano and Peri (2006) suggested a positive effect of diversity on housing prices, a paper that attempted to account for spatial sorting found the opposite effect. Jessie Bakens et. al., “Economic Impacts of Cultural Diversity in the Netherlands: Productivity, Utility, and Sorting,” *Journal of Regional Science* 53 no. 1(2013): 8-36.

<sup>16</sup> Jens Suedekum et. al., “Cultural Diversity and Local Labor Markets,” *Regional Studies* 48, no. 1 (2014): 173-191.

<sup>17</sup> Thomas Kemeny, “Cultural diversity, institutions, and urban economic performance,” *Environment and Planning A*, 44 (2012): 2134-2152.

<sup>18</sup> Annekatrin Niebuhr, “Migration and Innovation: Does Cultural Diversity Matter for Regional R&D Activity?” *IAB Discussion Papers* 14 (Nuremberg: Institute for Employment Research, 2006).

<sup>19</sup> Max Nathan, “Same difference? Minority ethnic inventors, diversity, and innovation in the UK,” *Journal of Economic Geography* 15 (2015): 129-168.

<sup>20</sup> William R. Kerr, “Ethnic Scientific Communities and International Technology Diffusion,” *The Review of Economics and Statistics* 90 no. 3 (August 2008): 518-537.

<sup>21</sup> Bálint Menyhért, “Economic Growth Spurred by Diversity: Evidence from the Austro-Hungarian Monarchy,” *Job Market Paper* (Central European University, 2018).

<sup>22</sup> Vincenzo Bove and Leandro Elia, “Migration, Diversity, and Economic Growth,” *World Development* 89 (2017): 227-239.

<sup>23</sup> In fact, while the overwhelming majority of research has concluded that the share of foreign-born workers and country-of-origin diversity are *both* important in driving the positive effects of immigration, some have found that in certain contexts, diversity *alone* is the factor that drives productivity growth. See Michaela Trax et. al., “Cultural diversity and plant-level productivity,” *Regional Science and Urban Economics* 53 (2015): 85-96.

<sup>24</sup> For a particularly thoughtful example, see Daniel Griswold, “Reforming the US Immigration System to Promote Growth,” *Mercatus Research Paper* (Arlington, VA: Mercatus Center, October 31, 2017).

for positive spillover benefits they provide by making the country more diverse.

Despite these contributions, the program remains politically unpopular. Reforms could buttress its political support without forfeiting the gains described in this brief through options including:

- *Mandating a lag before a lottery winner can get a green card.* This could maintain the benefits associated with a more diverse labor force, since if it were established properly, the annual flows could be maintained while lottery winners would eventually be expected to wait. This could answer political concerns about the fairness of the program if DV winners do not have to wait as long as other immigrants. However, this could modestly increase the average age of the DV cohort, which could slow integration and reduce the associated benefits.
- *Transforming the DV from an immigrant visa category to a renewable nonimmigrant visa category with conditional opportunities to adjust.* While preserving the benefits of the DV, this option would make the benefits associated with permanent residency or citizenship conditional on meeting employment requirements, language requirements, or other requirements that lawmakers would deem appropriate. While it would keep opportunities open, it would exclude the benefits of permanent residency until a lottery winner could demonstrate their ability to contribute.
- *Weighting the lottery by skills.* This would still offer a chance to a large population (as opposed to a simple higher education requirement, which is another option), but give those with more skills a higher chance. This would shift the composition of lottery winners toward the higher-skilled without eliminating the possibility of winning for any given person.
- *Weighting diversity within a broader points system.* This option was included in the

2013 comprehensive reform proposal passed by the Senate. The bill established a point-based visa system and gave extra points to those from countries with low levels of U.S. immigration. A more finely-tuned version could award points inversely to the levels of immigration from an applicant's country of origin. This option addresses concerns about the immigration system not selecting enough on the basis of merit while maintaining some consideration of diversity. However, it could still result in lower, suboptimal levels of immigrant diversity. It could also lead to unnecessary resentment toward those immigrants for whom points awarded on the basis of country of origin allowed them to meet the threshold, since they could be "taking spots" from otherwise higher-qualified immigrants, unlike in the DV program, where there is no such competition.

These ideas are not necessarily preferable to the status quo, nor are the drawbacks mentioned dispositive—more analysis is necessary and outside the scope of this brief. Rather, this discussion is included here to help demonstrate that creative reforms can address concerns from DV critics without forfeiting all of the benefits associated with a more diverse immigrant population.

In any case, the economic contribution of the Diversity Visa program should be considered in any discussion of reform. To end a valuable program because its benefits were merely unknown or ignored would be tragic political malpractice.



## Appendix

Statistical significance of differences between samples was detected using Wilcoxon rank-sum (Mann-Whitney U) tests assessed at the 5 percent level. All tests were weighted.

### Differences in Skill Levels Between DV Immigrants and Both Other Immigrants and Natives

Skill	DV compared to	<i>t</i>	<i>df</i>	<i>p</i>	Difference in mean rank score
Educational attainment	Non-DV	17.71	7,365	<.001	.154
	Natives	11.50	89,825	<.001	.118
Unemployment	Non-DV	-3.05	3,244	.002	-.019
	Natives	1.48	153,540	.139	.008
Earnings	Non-DV	-1.82	1,225	.069	-.036
	Natives	-0.41	217,750	.684	-.006
English	Non-DV	-7.45	8,124	<.001	-.060