

TECHNICAL APPENDIX
 What New Immigrants Could Mean for American Wages
 The Hamilton Project
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In the July employment analysis we estimated the effect that Senate Bill 744 (S.744) would have on the U.S. population and the effect of these new immigrants on the wages of U.S. workers. This appendix explains the details and data sources for these calculations.

Effect of S.744 on U.S. Population

The changes to immigration policies from S.744 and the net effect of S. 744 on the U.S. population by year 2023 are detailed in tables below. Descriptions of how each part was calculated are included below the tables.

Changes to Immigration Law Based on S.744

Portion of Bill	Description of Changes
Employment-Based Immigration	Visas for qualified workers and investors would be expanded by exempting dependents of workers, individuals with extraordinary ability, STEM degrees, and doctoral degrees from the cap, and recapturing unused visas for use in 2015.
Family-Based Immigration	Visas for relatives of current U.S. citizens and lawful permanent residents would be expanded by exempting immediate relatives from the cap and increasing the share of family-sponsored visas.
Merit-Based Immigration, Track 1	Allocates visas based on the number of points that potential immigrants received. Points would be awarded to individuals with higher education, English abilities, relatives who are U.S. citizens, and who apply from countries with historically low immigration to the U.S.
Merit-Based Immigration, Track 2	Visas to eliminate the backlog of family- and employment-based visa requests and visas for all siblings of U.S. citizens and married-adult children of U.S. citizens over the age of 31 who applied during the two years after enactment of the bill.
Elimination of Diversity Program	Eliminates the diversity visa program, which allocates visas to people from countries with low historical immigration to the U.S.
High-Skilled Temporary Workers (H1B)	Visas for foreign workers with at least a bachelor's degree to work temporarily in specialty occupations. Increases the number of H-1B visas and changes the restrictions on employers.
W-Visa Program	New temporary visa for workers employed in positions that require limited education or training.
Temporary Admissions	Increases the number of non-citizens admitted on a temporary basis, including investors; workers from Ireland, Africa and the Caribbean; and crime victims.
Decline in Unauthorized Residents	Increased spending on border security would reduce the number of unauthorized residents by one-third to one-half compared with the projected net flow under current law.

Effect of Senate Bill 744 on the U.S. Population

	Increase in Immigration from S. 744 above Baseline (millions)				
	Less than high school	High school graduates	Some college	Bachelor's degree or higher	Total (CBO)
Employment-Based Immigration	0.5	0.6	0.4	0.8	2.4
Family- Based Immigration	0.3	0.3	0.2	0.4	1.2
Merit-Based Immigration, Track 1	0.0	0.0	0.1	0.5	0.6
Merit-Based Immigration, Track 2	1.4	1.6	1.2	2.3	6.5
Elimination of Diversity Program	-0.1	-0.1	-0.1	-0.1	-0.4
High Skilled Temporary Workers (H1B)	0.0	0.0	0.0	0.2	0.2
W-Visa Program	0.7	0.4	0.0	0.0	1.1
Temporary Admissions	0.1	0.1	0.1	0.1	0.3
Decline in Future Unauthorized Residents	-1.1	-0.7	-0.2	-0.4	-2.4
Total Increase due to S.744	1.8	2.1	1.7	3.9	9.5
<i>Baseline net migration*</i>	<i>2.0</i>	<i>2.8</i>	<i>1.2</i>	<i>2.7</i>	<i>8.7</i>
Total Immigration under S.744	3.8	4.9	2.9	6.6	18.2
<i>Memo: Distribution of Immigrants by education 1990-2011</i>	<i>4.8</i>	<i>6.6</i>	<i>2.8</i>	<i>6.5</i>	<i>20.7</i>

*Assumes Census Projection and 1990-2011 Education Distribution of Immigrants

Note and source: The projected immigrants from 2014-2023 without S.744 are assumed to have the same educational attainment as immigrants from 1990 - 2011. New legal immigrants admitted under family-based, employment-based, merit-based track 2, diversity, and temporary admissions programs are assumed to have the same educational attainment as current legal immigrants. Future illegal immigrants are assumed to have the same educational attainment as current illegal immigrants. Data for the number of immigrants projected under S.744 come from the Congressional Budget Office, data for the number of immigrants from 1990 - 2011 come from the American Community Survey, data for projected immigration from 2014-2023 without S.744 come from the Census Bureau, and data for the demographics of current legal and illegal immigrants come from Pew Hispanic Center.

Immigrants from 1990 – 2011

The number and education of new immigrants from 1990-2011 are calculated from individual level microdata from the March 1990 [CPS](#) and March 2011 [American Community Survey](#). This change in immigrants includes both legal and illegal immigrants.

Projected net migration from 2014-2023

Projections for the change in U.S. population due to net migration (immigration to the U.S. minus emigration from the U.S.) without S.744 are from [the U.S. Census Bureau](#). We assume that these immigrants would have the same educational composition as U.S. immigrants from 1990 – 2011.

Effect of S.744

The effects of S.744 listed above are the changes in net U.S. population compared to if the U.S. did not pass S.744 and maintained its current immigration policies. The total effect on the U.S. population of each component of the senate bill is from the Congressional Budget Office's [analysis](#) of the bill and [update](#) to include Senate Amendment 1183.

For employment-based, family-based, merit-based track 2, the diversity program, and temporary admissions we assume that future immigrants from these policies would have the same educational composition as current U.S. legal immigrants as estimated by [Pew Hispanic Center \(2009\)](#). Future unauthorized immigrants are assumed to have the same educational composition as current U.S. unauthorized immigrants as also estimated by Pew Hispanic Center. Merit-based track 1 immigrants and high-skilled temporary workers (H1B visas) are assumed to be 80 percent bachelor's degree or higher and 20 percent some college because obtaining an H1B visa requires a bachelor's degree and the track 1 merit system rewards applicants with higher education and individuals employed in high skill occupations. Two-thirds of the W-visa immigrants are assumed to have less than a high school education and one-third are assumed to be high school graduates because the W-visa is for occupations that require little education or training.

The total effect of S.744 on the U.S. population is the sum of all the individual components of the bill. The estimated net migration if S.744 is implemented is the sum of predicted net migration without S.744 and the change in the U.S. population due to S.744.

Effect of New Immigrants on U.S. Wages

The calculations of how the new immigrants resulting from S.744 will impact U.S. wages use the methods in [Ottaviano and Peri's 2012 paper](#). U.S.-born wages refer to the wages of institutionally-employed individuals, over the age of 18, who are U.S.-born residents or residents born abroad to American parents. The model uses the change in immigrants between 2011 and 2023 and these immigrants' education and number of years of work experience. The changes in wages that we report are the effect of the additional immigrants projected from S.744 compared to the baseline and not the effect of all new immigrants if S.744 is implemented. We calculated the U.S.'s current education and experience distribution from the March 2011 American Community Survey. The educational attainment and number of future immigrants from 2014 - 2023 is estimated as previously described. We assume that future immigrants in each education group have the same experience composition as immigrants with the same education who immigrated from 1990 – 2011. Although the 2011 and projected 2023 immigrant numbers include non-working individuals, we use the percent change for each education group from 2011 to 2023 and assume that the working population for each education group increases by the same percentage as the total population of that education group.

The two different wage estimates we present differ in their assumption about the substitutability of native workers and foreign workers. The Peri and Ottaviano estimate assumes that a native and immigrant with the same education and work experience are not perfect substitutes or that they are on average not equally productive or equally skilled. One reason this might be true is that immigrants and native workers often work different jobs and perform different tasks. The second wage calculation makes different assumptions about the substitutability between immigrants and native drawing on the work of [Borjas \(2003\)](#) and [Borjas and Katz \(2007\)](#).