



**MEMORANDUM**

April 22, 2015

**To:** Senate Committee on the Judiciary, [REDACTED]  
[REDACTED]  
[REDACTED]

**From:** [REDACTED], Analyst in Immigration Policy, [REDACTED]

**Subject:** **Presentation of Data on the U.S. Foreign Born, Average Incomes of the Bottom 90% of Tax Filers, and the Estimated Share of Income Held by the Bottom 90% of the U.S. Income Distribution, 1945-2013**

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This memorandum responds to your request for data related to numbers of U.S. foreign born,<sup>1</sup> the average U.S. income for the bottom 90% of U.S. tax filers, and the estimated share of income held by the bottom 90% of the U.S. income distribution, all for the years 1945 to 2013.

This is the third memorandum we have produced this month, following your instructions, that presents data on the U.S. foreign born population and income statistics for the bottom 90% of the U.S. income distribution.

Your request consisted of two parts. First, you requested that Congressional Research Service (CRS) map the above-noted average U.S. income data against the total foreign-born population as well as the U.S. foreign-born percentage of the population, both for the period from 1945 to 2013. Second, you posed a series of questions related to computations for all of the data described above.

The first section of this memorandum describes limitations and caveats applicable to the data used herein. The second section addresses the two parts of your request noted above. Tables with data used are presented at the end of this memorandum. Given the interest in the foreign-born population and in the U.S. income distribution, CRS is receiving similar requests for background and analyses on these topics. While the discussion and descriptive statistics below are tailored to your specific request, portions of it are taken from and may be used in CRS products available to other Members of Congress.<sup>2</sup>

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<sup>1</sup> The term “foreign born” refers to individuals born outside the United States who do not automatically acquire citizenship at birth.

<sup>2</sup> See CRS Report R41592, *The U.S. Foreign-Born Population: Trends and Selected Characteristics*, by William A. Kandel.

## Data Limitations and Caveats<sup>3</sup>

Estimates of the average income within the bottom 90% of the income distribution in the United States presented in **Figure 1**, **Figure 2** and **Table 1** come from the Paris School of Economics, World Top Income Database (WTID).<sup>4</sup> These data are constructed primarily from tax statistics, and as such, represent the average income of the bottom 90% of tax filers.<sup>5</sup> Income here refers to pre-tax, pre-transfer, cash market income that excludes capital gains and losses.<sup>6</sup> This means that income taxes paid, credits received, and government transfers—including social security payments—are not reflected in these data. Non-cash benefits like non-taxable fringe benefits and imputed rent for homeowners are also excluded. As such, the data may misstate the total income of the bottom 90% of tax filers, because they may exclude significant forms of income and liabilities that could represent substantial portions of the average income reported by the data.<sup>7</sup> CRS is unable to determine the extent to which the average income figures for the bottom 90% of U.S. tax filers each year are over- or under-stated because of these omissions. In addition, because the data series is constructed from income tax return data, it is subject to the standard caveats applied to tax data (e.g., possible underrepresentation of very low-income earners, sensitivity to tax policy, use of the tax unit as the unit of observation).<sup>8</sup>

Per your request, estimates of the share of income held by the bottom 90% of the U.S. income distribution were derived by subtracting the WTID estimate of the top 10% income share from 100% (**Table 1**).

U.S. total population and foreign-born population figures from 1940 to 2010 for decennial years (e.g. 1940, 1960, 1990, etc.) presented in **Figure 1**, **Figure 2** and **Table 2** come from the Decennial Census (census) and represent *complete counts* of the population residing in the United States in decennial years.<sup>9</sup> The same figures for 2013 come from the American Community Survey (ACS) and represent *estimates* of the population residing in the United States in that year.<sup>10</sup>

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<sup>3</sup> Sarah Donovan, Analyst in Labor Policy, contributed to this section.

<sup>4</sup> Alvaredo, Facundo, Anthony B. Atkinson, Thomas Piketty and Emmanuel Saez, The World Top Incomes Database, <http://topincomes.g-mond.parisschoolofeconomics.eu/>, accessed by CRS on March 30, 2015.

<sup>5</sup> For more information on these data, see The World Top Incomes Database, *Introduction*, [http://topincomes.g-mond.parisschoolofeconomics.eu/#Introduction](http://topincomes.g-mond.parisschoolofeconomics.eu/#Introduction;)., accessed by CRS on April 13, 2015.

<sup>6</sup> WTID has an additional income data series that does include capital gains.

<sup>7</sup> These data have been criticized for these and other reasons. See for example, Scott Winship “No, The Rich Are Not Taking All Of The Economic Pie (In 8 Charts)” Manhattan Institute for Policy Research, September 30, 2014, <http://www.manhattan-institute.org/html/miarticle.htm?id=10783#.VSKj9-HQJUE>. Other critiques of these data appear in Thomas Piketty and Arthur Goldhammer, *Capital in the Twenty-First Century* (Belknap Press, 2014).

<sup>8</sup> For more on these limitations, see CRS Report R43897, *A Guide to Describing the Income Distribution*, by Sarah A. Donovan.

<sup>9</sup> For overview, technical, and historical information on the Decennial Census, see the U.S. Census Bureau’s Census of Population and Housing webpage at <http://www.census.gov/prod/www/decennial.html>.

<sup>10</sup> The ACS is a survey of the U.S. population, and as such, produces estimates of the population within specified margins of error. For more information on the American Community Survey, see the U.S. Census Bureau’s American Community Survey webpage at [http://www.census.gov/acs/www/data\\_documentation/documentation\\_main/](http://www.census.gov/acs/www/data_documentation/documentation_main/).

# Presentation of Data

## Section One: Graphing Variables

To address the first part of your request, CRS has graphed the average income of the bottom 90% of U.S. tax filers (in constant 2013 U.S. dollars) against two variables:

- 1) the total U.S. foreign-born population (**Figure 1**); and
- 2) the U.S. foreign-born population as a percentage of the total U.S. population (**Figure 2**).

Data are presented from 1945 to 2013 (the most recent year for which data are available) as requested. Data for both the foreign born and the foreign born as a percentage of the total U.S. population are readily available for only decennial census years (e.g. 1950, 1960, 1970, etc.) Per your request, CRS has increased the number of data points that appear in each graph by including estimated values for mid-point years between the decennial census years (e.g. 1955, 1965, 1975, etc.). For these intercensal years, figures for the total U.S. foreign-born population as well as the U.S. foreign-born population as a percentage of the total U.S. population are computed using the simple average of the surrounding census year figures. For example, the average foreign-born population for 1965 is estimated in this memorandum as the average between the 1960 and 1970 values for the foreign-born population. The defensibility of this approach is based upon consistent population patterns exhibited by the total foreign-born and total U.S. populations.<sup>11</sup>

To display intervals of consistent duration (5 years), the last year shown in all three graphs below is 2010 rather than 2013. The latter year, if included, would result in an interval of three years, from 2010-2013, whereas all other intervals are of 5-year durations.

It bears noting that a causal relationship between two variables – whereby change in one variable causes change in another variable in a systematic or consistent manner – cannot be determined through a simple graphic representation. Hence, CRS is unable to draw any conclusions or determine any relationship between two variables by virtue of those variables being presented together in a graph.

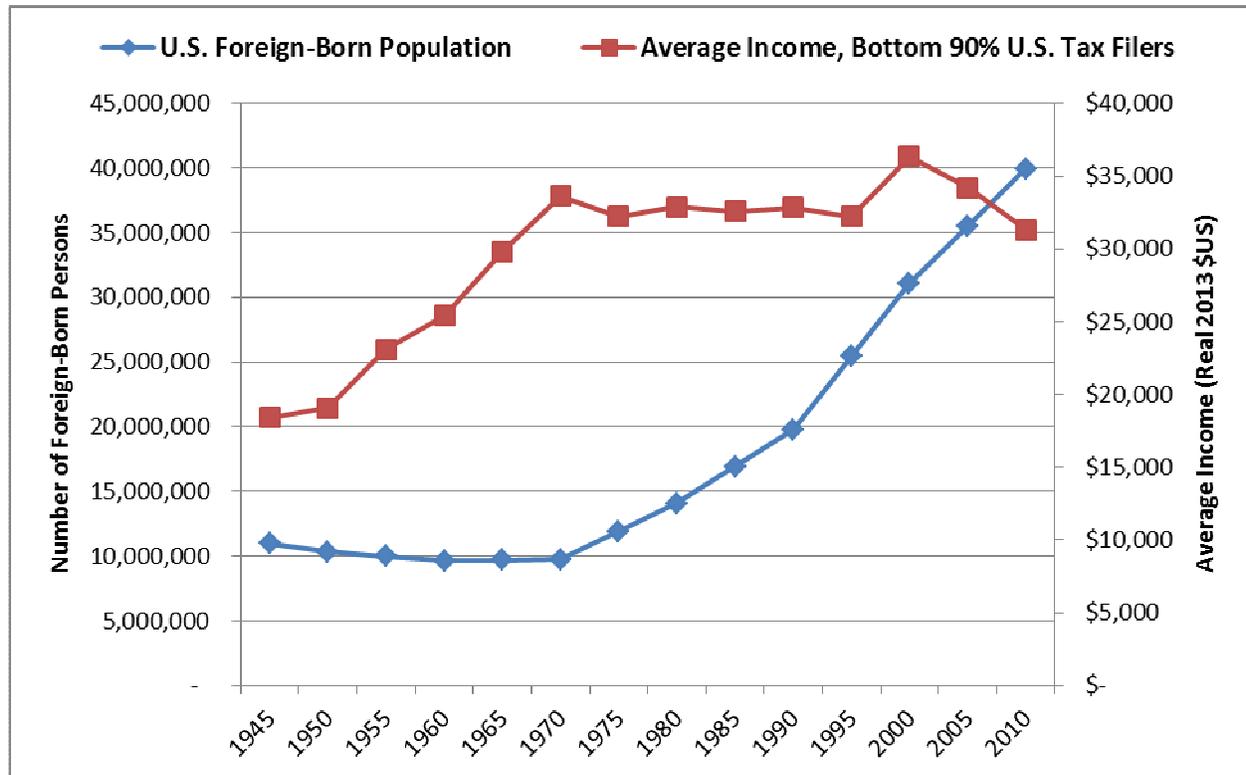
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<sup>11</sup> For example of the consistency of population trends over time for the foreign- and native-born populations, see Figure 1 in CRS Report R41592, *The U.S. Foreign-Born Population: Trends and Selected Characteristics*, by William A. Kandel.

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**Figure I. The U.S. Foreign-Born Population Plotted Against the Average Income of the Bottom 90% of Income Tax Filers in the United States, 1945-2010**

(Incomes are in real 2013 U.S. Dollars)

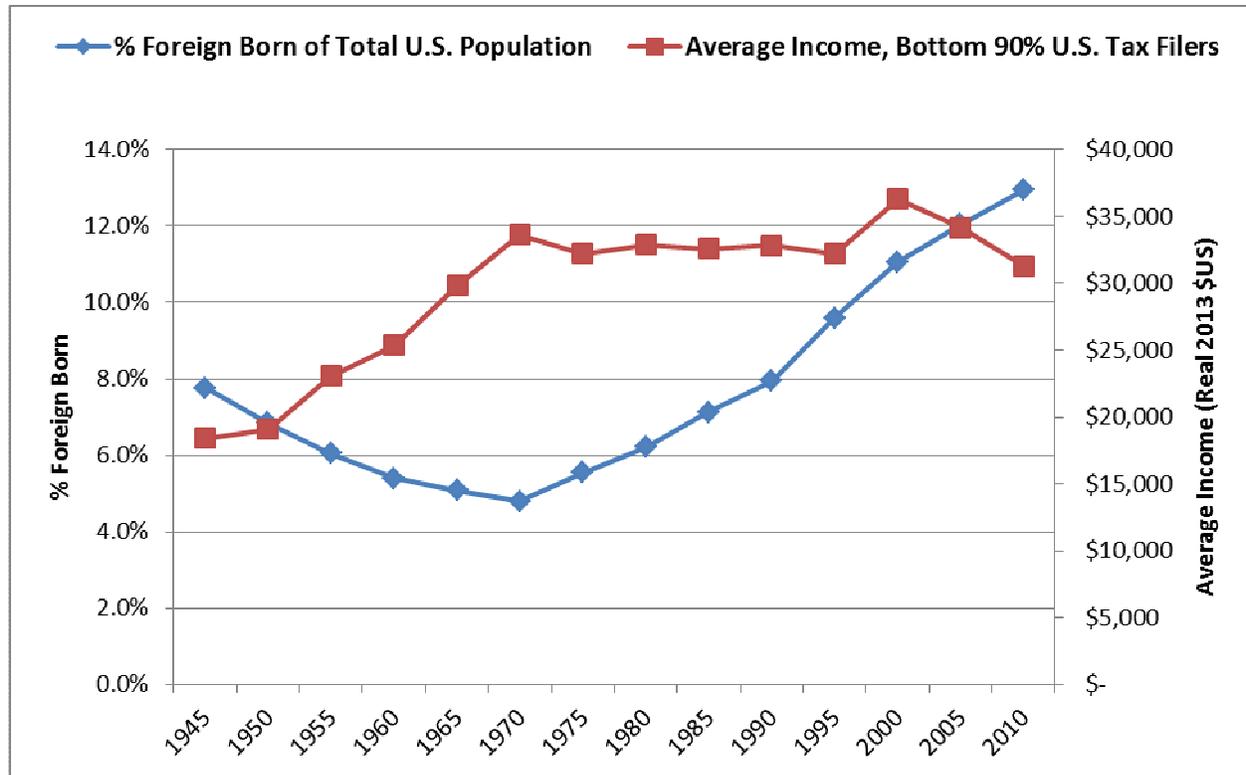


**Source:** **Foreign-born Persons: 1945-1950:** US Department of Commerce, Bureau of the Census, 1960 Statistical Abstract, Population Section, Table 29; **1960-1990:** 2000 Statistical Abstract, Population Section, Table 46; **2000:** 2003 Statistical Abstract, Population Section, Table 48; **2010:** U.S. Census Bureau, American Factfinder, 2010 Census data; **Average Income of Bottom 90% of Tax Filers:** Alvaredo, Facundo, Anthony B. Atkinson, Thomas Piketty and Emmanuel Saez, The World Top Incomes Database, <http://topincomes.g-mond.parisschoolofeconomics.eu/>, accessed by CRS on March 30, 2015.

**Notes:** Foreign-born Persons data for intercensal years (1945, 1955, 1965, 1975, 1985, 1995, 2005) represent numerical averages of adjacent Decennial Census year data. For example, the 1955 foreign born figure = (1950 foreign born+1960 foreign born) divided by 2.

**Figure 2. The U.S. Foreign-Born as a Percentage of the Total U.S. Population, Plotted Against the Average Income of the Bottom 90% of Income Tax Filers in the United States, 1945-2010**

(Incomes are in real 2013 U.S. Dollars)



**Source:** Foreign-born Persons and Total U.S. Population Figures: 1945-1950: US Department of Commerce, Bureau of the Census, 1960 Statistical Abstract, Population Section, Table 29; 1960-1990: 2000 Statistical Abstract, Population Section, Table 46; 2000: 2003 Statistical Abstract, Population Section, Table 48; 2010: U.S. Census Bureau, American Factfinder, 2010 Census data; Average Income of Bottom 90% of Tax Filers: Alvaredo, Facundo, Anthony B. Atkinson, Thomas Piketty and Emmanuel Saez, The World Top Incomes Database, <http://topincomes.gmond.parisschoolofeconomics.eu/>, accessed by CRS on March 30, 2015.

**Notes:** Foreign-born percentage figures for intercensal years (1945, 1955, 1965, 1975, 1985, 1995, 2005) represent the product of dividing the numerical averages of adjacent Decennial Census year foreign-born population figures by the numerical averages of adjacent Decennial Census year total population figures. For example, the percent foreign born for 1955 = [(1950 U.S. foreign born+1960 U.S. foreign born) divided by 2] divided by [(1950 total U.S. population+1960 total U.S. population) divided by 2].

## Section Two: Responses to Posed Questions

This section addresses the following six questions (shown in bold italics) which you posed for CRS. The responses rely upon the same datasets used for the graphs above.

***1. From 1945-1970, what was the net change in the foreign-born population, expressed both as a percentage and numerically?***

The foreign-born population in the United States diminished from 10,971,146 in 1945 to 9,740,000 in 1970, a decline of 1,231,146 persons, representing a percentage decline of 11.2% over this 25 year period.

***2. From 1945-1970, how did overall wages change for the bottom 90% of earners?***

The reported income of the bottom 90% of tax filers in the United States increased from an average of \$18,418 in 1945 to \$33,621 in 1970 for an aggregate change of \$15,202 or a percent increase of 82.5% over this 25 year period.

***3. From 1945-1970, what was the net change in the share of income held by the bottom 90% of the U.S. income distribution?***

The share of income held by the bottom 90% of the U.S. income distribution increased from 67.4% in 1945 to 68.5% in 1970, an absolute increase of 1.1 percentage points over this 25 year period.

***4. From 1970-present, what was the net change in the foreign-born population, expressed both as a percentage and numerically?***

Between 1970 and 2013, the estimated foreign-born population in the United States increased from 9,740,000 to 41,348,066, respectively, an increase of 31,608,066 persons, representing a percentage increase of 324.5% over this 43 year period.

***5. From 1970-present, how did overall wages change for the bottom 90% of earners?***

The reported income of the bottom 90% of tax filers in the United States decreased from an average of \$33,621 in 1970 to \$30,980 in 2013 for an aggregate decline of \$2,641 or a percent decline of 7.9% over this 43 year period.

***6. From 1970-present, what was the net change in the share of income held by the bottom 90% of the U.S. income distribution?***

The share of income held by the bottom 90% of the U.S. income distribution declined from 68.5% in 1970 to 53.0% in 2013, an absolute decline of 15.5 percentage points over this 43 year period.

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## Data Presented in this Memorandum

**Table I. Average Income of Bottom 90% of U.S. Tax Filers and Estimated Share of Income Held by the Bottom 90% of the U.S. Income Distribution, 1945-2013**

(All figures are in real 2013 U.S. dollars)

Year	Average Income of the Bottom 90% of U.S. Tax Filers	Estimated Share of Income Held by the Bottom 90% of the U.S. Income Distribution
1945	\$18,418	67.4%
1946	\$17,994	65.4%
1947	\$17,802	67.0%
1948	\$17,931	66.3%
1949	\$17,696	66.2%
1950	\$19,073	66.1%
1951	\$19,963	67.2%
1952	\$20,828	67.9%
1953	\$21,978	68.6%
1954	\$21,478	67.9%
1955	\$23,072	68.2%
1956	\$24,258	68.2%
1957	\$24,411	68.3%
1958	\$23,516	67.9%
1959	\$24,959	68.0%
1960	\$25,381	68.3%
1961	\$25,588	68.1%
1962	\$26,465	68.0%
1963	\$27,143	68.0%
1964	\$28,606	68.4%
1965	\$29,831	68.5%
1966	\$30,940	68.0%
1967	\$31,662	68.0%
1968	\$32,730	68.0%
1969	\$33,287	68.2%
1970	\$33,621	68.5%
1971	\$33,411	68.3%
1972	\$34,863	68.4%
1973	\$35,468	68.2%
1974	\$34,150	67.6%
1975	\$32,224	67.4%

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<b>Year</b>	<b>Average Income of the Bottom 90% of U.S. Tax Filers</b>	<b>Estimated Share of Income Held by the Bottom 90% of the U.S. Income Distribution</b>
1976	\$33,099	67.6%
1977	\$33,418	67.6%
1978	\$34,041	67.6%
1979	\$34,055	67.7%
1980	\$32,887	67.1%
1981	\$32,675	67.3%
1982	\$31,782	66.8%
1983	\$31,245	66.3%
1984	\$32,172	66.1%
1985	\$32,591	65.8%
1986	\$32,868	65.4%
1987	\$32,804	63.5%
1988	\$33,268	61.4%
1989	\$33,249	61.5%
1990	\$32,819	61.2%
1991	\$32,117	61.6%
1992	\$31,631	60.2%
1993	\$31,339	60.5%
1994	\$31,830	60.4%
1995	\$32,233	59.5%
1996	\$32,637	58.8%
1997	\$33,600	58.3%
1998	\$34,998	57.9%
1999	\$36,029	57.3%
2000	\$36,324	56.9%
2001	\$36,020	57.8%
2002	\$34,566	57.6%
2003	\$33,856	57.2%
2004	\$34,238	56.4%
2005	\$34,181	55.1%
2006	\$34,458	54.5%
2007	\$35,326	54.3%
2008	\$33,297	54.0%
2009	\$31,622	54.5%
2010	\$31,292	53.7%
2011	\$30,904	53.4%

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Year	Average Income of the Bottom 90% of U.S. Tax Filers	Estimated Share of Income Held by the Bottom 90% of the U.S. Income Distribution
2012	\$31,154	52.2%
2013	\$30,980	53.0%

**Source:** Alvaredo, Facundo, Anthony B. Atkinson, Thomas Piketty and Emmanuel Saez, The World Top Incomes Database, <http://topincomes.g-mond.parisschoolofeconomics.eu/>, accessed by CRS on March 30, 2015.

**Notes:** Per the client's request, estimates of the share of income held by the bottom 90% of the U.S. income distribution were derived by subtracting the WTID estimate of the top 10% income share from 100%.

**Table 2. Foreign-born Population and Foreign-born population as a Percentage of Total U.S. Population**

Year	Total U.S. Population	Total Foreign-born Population	Total Foreign-born Population as a Percentage of Total U.S. Population
1940	131,669,275	11,594,896	8.8%
1945	141,497,537	10,971,146	7.8%
1950	151,325,798	10,347,395	6.8%
1955	165,324,487	10,004,198	6.1%
1960	179,323,175	9,661,000	5.4%
1965	191,312,603	9,700,500	5.1%
1970	203,302,031	9,740,000	4.8%
1975	214,922,115	11,910,000	5.5%
1980	226,542,199	14,080,000	6.2%
1985	237,630,250	16,923,500	7.1%
1990	248,718,301	19,767,000	7.9%
1995	265,070,104	25,437,500	9.6%
2000	281,421,906	31,108,000	11.1%
2005	295,083,722	35,531,927	12.0%
2010	308,745,538	39,955,854	12.9%
2013	316,128,839	41,348,066	13.1%

**Source:** **1940-1950:** US Department of Commerce, Bureau of the Census, 1960 Statistical Abstract, Population Section, Table 29; **1960-1990:** 2000 Statistical Abstract, Population Section, Table 46; **2000:** 2003 Statistical Abstract, Population Section, Table 48; **2010:** U.S. Census Bureau, American Factfinder, 2010 Census data; **2013:** U.S. Census Bureau, American Factfinder, 2013 American Community Survey data, 1-year estimates.

**Notes:** 1940 is presented in Table 2 because the figures for 1945 derive from those of 1940 and 1950.