The Impact of Immigration on U.S. Population Growth

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Abstract

The primary factor driving U.S. population growth is international migration. Immigrants from aboard add directly to the nation's population by their arrival and by the children they have after they come. Because the fertility of American women has been at or below replacement level for many years — 2.1 children per women — absent immigration there would be very little long-term population growth in the United States. The most recent Census Bureau projections indicate that the U.S. population will be nearly 85 million larger in 2060 than it otherwise would be if there was no new immigration. This report will demonstrate the enormous impact that immigration policy has had and will have on the future size of the U.S. population. It will also discuss how federal agencies might go about estimating the population impact of policy changes and comply with the National Environmental Policy Act.

Introduction

Immigration policy determines the number of immigrants admitted, as well as the level of resources devoted to controlling illegal immigration. There is no question that immigration policies have added enormously to the U.S. population. Census Bureau data indicates that about 1.5 million new immigrants (legal and illegal) have settled in the country annually in recent years. There are also nearly 800,000 births to immigrant mothers each year.[1] Changes in admission criteria, regulations, and enforcement priorities largely determine the number of people arriving or the number allowed to stay in the country. Between just 2010 and 2018, the United States gave 9.6 million immigrants permanent residency status (green cards).[2] In addition, the United States admits long-term temporary visitors, such as guestworkers and foreign students, some of whom eventually adjust to permanent status. Some temporary visitors also overstay their visas and join the illegal population. Other people enter the United States surreptitiously and join the illegal population. It is possible to project the impact of all this immigration on the future size of the U.S. population.

The U.S. Census Bureau, other federal agencies, and non-governmental organizations all incorporate estimates of immigration in order to projection the future size and growth of the U.S. population. There is consensus among demographers that immigration is the primary factor driving future U.S population growth. We can see the enormous impact of immigration by looking backward to estimate how much immigration has added to the U.S. population, and also by projecting its impact forward into the future. The Census Bureau uses the term "foreign-born" for those who arrive in the United States and are not U.S. citizens at birth. The terms immigrant and foreign-born are used synonymously here.[3]

Analyzing Immigration's Impact Retrospectively

DHS Population Estimates. Based primarily on administrative data, the Department of Homeland Security periodically puts out estimates of the number of immigrants of various kinds living in the United States. For example, DHS estimated in January 2019, that there were 13.6 million lawful permanent residents (green card holders) residing in the United States.[4] The department has also estimated there were 2.3 million "non-immigrants" living in the country — primarily guestworkers and foreign students in the country in 2016.[5] The government uses the term "non-immigrant" to describe those entering or living in the country on temporary visas. Homeland Security has also estimated the number of illegal immigrants in the country.[6] These estimates indicate that it is certainly possible to measure the number of temporary, permanent, and illegal immigrants in the country.[7]

The Impact of Past Immigration. A more comprehensive estimate of immigration's impact on the size of the U.S. population would include not just the immigrants themselves but their descendants as well. In a paper published in 2019, Karen Ziegler and I used the Census Bureau's American Community Survey, and other data, to estimate the impact of post-1990 immigration on the size and age structure of the U.S. population. Our analysis takes into account deaths, outmigration as well as births to immigrants and birth the children of post-1990 who had reached adulthood by 2017. We estimate that immigrants who arrived in 1990 or later added 43 million people to the country by 2017. Since the U.S. population grew by 75 million between 1990 and 2017, immigration accounted for about 57 percent of U.S. population growth over this time period.

Taking a longer view, the Pew Research Center reported in 2015 that 72 million post-1965 immigrants and their children and grandchildren lived in the country, accounting for the majority of U.S. population growth in the last five decades. The nation's total population would have been 252 million in 2015 rather than the 324 million it actually was had there been no immigration after 1965.[8] One of the primary reasons that immigration added so much to the population was changes to immigration policies in the 1960s. These changes added enormously to the U.S. population.

Joseph Chamie, formerly of the United Nations Population Division, takes an even longer view, and estimates that between 1776 and 2006 immigration added about 176 million people to the U.S. population by 2006.[9] Very long-term retrospective analysis reminds us that the impact of immigration on population size can be truly enormous. Of course, there was a time when the native-born had large families and, as a result, immigration accounted for a modest share of population growth. In fact, because of the relatively low level of immigration from 1930 to 1970, the immigrant population actually declined by 4.6 million or 32 percent even though the overall U.S. population grew by two-thirds (80.4 million).[10] But since the 1970s, the fertility of American women has been at or below the level needed to replace the existing population (2.1

children per woman).[11] And immigration levels have been much higher. As a result, immigration has come to account for all or nearly all of the long-term growth in the nation's population.

Prior analysis demonstrates the obvious fact that the arrival of immigrants adds immediately to the size of the U.S. population; and, over time the descendents of the original immigrants add to the population as well. While retrospective analysis shows the impact of past immigration, it is also possible to project its impact on the future size of the U.S. population. This kind of analysis is probably the most relevant to the National Environmental Policy Act.

Projecting the Impact of Immigration on the U.S. Population

Census Bureau Projections. The U.S. Census Bureau produces the most well-known and commonly cited national population projections.[12] The Bureau's newest population projections were re-issued in September 2018 and project the population out to 2060.[13] Recognizing the importance of immigration levels on the future size and characteristics of the U.S. population, in February of 2020 the Bureau added a series of immigration scenarios to existing projections. These scenarios vary the level of net-migration — which is the number of people coming into the country versus the number leaving. We can see the impact of immigration on the nation's future population size by examining the bureau's "zero," "low," "high," and "main" immigration projections. These new migration scenarios use the same assumptions about fertility, mortality, as the bureau's earlier projections, only the migration assumption is varied.

The Census Bureau provides detailed figures for net immigration and the resulting population size by year through 2060.[14] Turning first to the Census Bureau's zero-immigration scenario, it shows a total U.S. population of 319.7 million in 2060. While the zero-migration scenario assumes no new immigration, it does assume out-migration will total 11.5 million by 2060.[15] This is the only scenario with a negative value for net migration. The low-migration scenario assumes net immigration of 27.8 million between 2017 and 2060, and a total U.S. population in 2060 of 376.2 million. The main series of projections, which the Bureau also describes as the "middle migration series," assumes that future net migration will total 47.4 million and the total U.S. population will be 404.5 million in 2060. The middle series are the same as those released in September of 2018. Comparing the zero immigration series to the middle migration series indicates that the U.S. population will be nearly 84.8 million larger in 2060 than it otherwise would be due to future immigration. The bureau's high immigration scenario assumes net immigration of 76.9 million by 2060, and projects a total population of 446.9 million by that year. These population projections from the Census Bureau, like those released by the Bureau in 2014 and 2012, demonstrate is that it possible for government agencies to generate population projection assuming different levels of migration.[16]

The Impact of Policy Changes. There is no question that immigration adds to the U.S. population and it is possible to estimate the incremental impact of immigration in the future. So,

for example, if a regulatory change were to increase new arrivals it is possible to estimate how much this would add to the population both short-term and long-term. The top two rows of the table below report how many more people there would be in the United States if there was a one-time increase of 5,000 or 10,000 new immigrants. The first row of the table reads as follows, an increase of 5,000 new immigrants entering the country for one year, and one year only, would increase the population of the United States after five years 5,912; by 8,287 in 25 years; and by 9,668 residents in 40 years. The second column in the table shows the impact of a one-time increase of 10,000 people. These figures are based on the Census Bureau's latest population projections using the same assumptions about the demographic composition of immigrants, as well as mortality, deaths, and outmigration.[17] One way to think about the numbers is that for each immigrant admitted in the first year of the projection, it increases the size of the U.S. population by about 1.7 residents in 25 years and 1.9 residents in 40 years. Assuming, of course, that the composition of the immigrants, as well as their fertility, mortality, and outmigration rates are the same as what the Census Bureau expects for the next 40 years.

The incremental impact of additional immigration on the future size of the U.S. population

	Year							
Scenarios	**5th**	**10th**	**15th**	**20th**	**25th**	**30th**	**35th**	**40th**
5,000 additional immigrants one year	5,912	6,764	7,418	7,877	8,287	8,732	9,220	9,668
10,000 additional immigrants one year	11,824	13,529	14,836	15,754	16,573	17,464	18,440	19,335
5,000 additional immigrants every year	27,703	59,966	96,132	135,210	176,784	221,027	268,326	318,700
10,000 additional immigrants every year	55,406	119,932	192,263	270,420	353,568	442,054	536,652	637,400

Figures are based on the September 2018 Census Bureau projections

The lower portion of the table shows the impact of 5,000 or 10,000 additional immigrants if that number is added every year. If, for example, an additional 5,000 immigrants were admitted every year as a result of a policy change, it would add 318,700 additional residents to the U.S. population in 40 years. While the table uses the Census Bureau assumptions about the composition of future immigrants, it is certainly possible to change these assumptions and project the impact of a particular policy change. For example, Latin American immigrants have somewhat higher fertility than other immigrant groups and comprised about 42 percent of new immigrants at the present time. So if a policy change might increase the share of immigrants who come from that region, then the projections can be adjusted to reflect this fact. Alternatively, if a regulatory change might result in additional immigrants who are young or more female those changes can be accounted for in a projection model as well. It is also possible to make projections assuming that a regulatory change might change out-migration rates. All population projections make assumptions about the composition of immigrants, and their demographic attributes. These assumptions can be changed to reflect a policy change.

It would certainly be possible for federal agencies to create a population projection model and alter the parameters to estimate the population impact of different regulatory changes. The Census Bureau’s Population Division already has a model that they are regularly updating. Other parts of the federal government, such as the Social Security Administration, also project the population. Once a model is created, it is not that difficult to vary the immigration component,

and report the impact on the size of the nation's population out to whatever year is desired. Projections of any kind, whether for the economy, a budget, or the population, contain an element of uncertainty, but that does not negate their value.

Conclusion

That immigration adds to the U.S. population is not just common sense, it is an undeniable fact based on all of the evidence. Prior analysis shows that immigration accounts for the majority of U.S. population growth in the long term and will do so moving forward. Some immigrants come and some leave every year, but a very large number stay permanently and add to the population. For years demographers have measured the impact of immigration on the size and composition of the U.S. population. In fact, there has never been more data available to do so than there is today. Projections are commonly used by both government and non-government researchers to estimate the future size of the U.S. population. It would be a relatively straightforward matter for federal agencies to use a projections model to estimate the impact of policy changes on immigration levels and the size of the U.S. population. The expertise to do so already exists inside the federal government. Once a model is created, it can be updated regularly and used to project the population impact of different federal policies.

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[1]The most recent data available from the public-use file of the American Community Survey (ACS), which is collected by the Census Bureau, shows 1.45 million new immigrants settled in the United States in all of 2017, and 884,000 in the first half of 2018. The ACS asks respondents what year they came to the United States to live. The number of new arrivals for all of 2017 is based on the 2018 ACS data. The ACS produces an estimate for a full calendar year only for the year prior to when the survey was collected. This is because the data is weighted to reflect the U.S. population as of July 1. The number who came in 2017 was down from the 1.75 million who arrived in 2016 (2017 ACS data) and the 1.62 million (2016 ACS data) who arrived in 2015. The margin of error for the annual number of new arrivals in the ACS is about ±40,000, assuming a 90 percent confidence level. The ACS is designed to capture all types of immigrants, including those who entered or remained in the country illegally. However, some number of immigrants, especially those who are new arrivals, are missed by the survey. The 2018 public-use ACS shows 790,745 immigrant women gave birth in the prior 12 months — mid-2017 to mid-2018.

[2] Table 1. U.S. Department of Homeland Security. *2018 Yearbook of Immigration Statistics.* Washington, D.C.: U.S. Department of Homeland Security, *Office of Immigration Statistics, 2019*.https://www.dhs.gov/immigration-statistics/yearbook/2018/table1

[3] As defined by the Census Bureau, the foreign-born are those who are not U.S. citizens at birth and include legal permanent residents (green card holders), naturalized citizens, temporary visitors, and illegal immigrants. It is well established that both legal and illegal immigrants respond to Census Bureau surveys.

[4] Bryan Baker, "Estimates of the Lawful Permanent Resident Population in the United States and the Subpopulation Eligible to Naturalize: 2015-2019," Department of Homeland Security, Office of Immigration Statistics, September 2019. https://www.dhs.gov/sites/default/files/publications/lpr_population_estimates_january_2015_-_2019.pdf

[5] Bryan Baker, " Nonimmigrants Residing in the United States: Fiscal Year 2016," Department of Homeland Security, Office of Immigration Statistics, March 2018. https://www.dhs.gov/sites/default/files/publications/Nonimmigrant_Population%20Estimates_2016_0.pdf

[6] Bryan Baker, "Population Estimates: Illegal Alien Population Residing in The United States: January 2015," Department of Homeland Security, Office of Immigration Statistics, December 2018. https://www.dhs.gov/sites/default/files/publications/18_1214_PLCY_pops-est-report.pdf

", Office of Immigration Statistics, March 2013. https://www.dhs.gov/sites/default/files/publications/ois_ill_pe_2012_2.pdf

[7] The above figures do not include the 20 million naturalized U.S. citizens in the country based on the 2014 American Community Survey.

[8] Jeffery Passel, Mark Lopez, and Molly Rohal, "Modern Immigration Wave Brings 59 Million to U.S., Driving Population Growth and Change Through 2065", Pew Research Center, September 2015. http://www.pewhispanic.org/files/2015/09/2015-09-28_modern-immigration-wave_REPORT.pdf Although the title of the Pew report seems to imply that immigration adds 59 million to the U.S. population, p. 7 of the Pew report makes clear that the figure is 72 million. The 59 million refers to the flow of new immigrants into the country and does not include outmigration, deaths, or most important the descendants of post-1965 immigrants.

[9] Joseph Chamie, "American Migration 1776 to 2006", *The Globalist,* November 2006. http://www.theglobalist.com/american-migration-1776-to-2006/

[10] "Historical Census Statistics On The Foreign-Born Population Of The United States: 1850 to 2000," Campbell Gibson and Kay Jung. U.S. Working Paper 81. Bureau of the Census. https://www.census.gov/content/dam/Census/library/working-papers/2006/demo/POP-twps0081.pdf

[11]"Is U.S. fertility at an all-time low? Two of three measures point to yes" Gretchen Livingston. Pew Research Center, May 2019. https://www.pewresearch.org/fact-tank/2019/05/22/u-s-fertility-rate-explained/

[12] In addition to the Census Bureau, the Social Security Administration (SSA) has its own population projections. Like the Census Bureau SSA also projects the impact of alterative levels of immigration. "The Long-Range Demographic Assumptions For The 2019 Trustees Report Office of the Chief Actuary," Social Security Administration
April 22, 2019 https://www.ssa.gov/oact/TR/2019/2019_Long-Range_Demographic_Assumptions.pdf

[13] "Methodology, Assumptions, and Inputs for the 2017 National Population Projections" U.S. Census Bureau, September 2018. https://www2.census.gov/programs-surveys/popproj/technical-documentation/methodology/methodstatement17.pdf

[14] The assumptions used for their alternative migration scenarios can be found at the Census Bureau's web site. Tables NP2017-A and NP2017-B provide the net immigration for every year 2017 to 2060.
https://www.census.gov/data/tables/2017/demo/popproj/2017-alternative-summary-tables.html

[15] The Bureau recognizes that this is extremely unlikely and states that zero new immigration is not something they expect to happen and the zero scenario "is provided for analytical purposes only." https://www2.census.gov/programs-surveys/popproj/technical-documentation/methodology/P2017%20Alternative%20Series%20Methodology.pdf

[16] The 2014 population projections, including alternative immigration scenarios, can be found here:
https://www.census.gov/data/tables/2014/demo/popproj/2014-summary-tables.html. The 2012 projections with alternative immigration scenarios can be found here:
https://www.census.gov/data/tables/2012/demo/popproj/2012-summary-tables.html.

[17] The table is based on a model developed by the Center for Immigration Studies with the assistance of Decision Demographics. The model replicates the Census Bureau's most recent population projections from September of 2018 and allows for the immigration component to be changed while leaving all other assumptions unaltered. See Steven A. Camarota and Karen Zeigler, "Projecting the Impact of Immigration on the U.S. Population A look at size and age structure through 2060," Center for Immigration Studies, February 4, 2019. https://cis.org/Report/Projecting-Impact-Immigration-US-Population