

Room to Grow:

Setting Immigration Levels in a Changing America

By Ali Noorani and Danilo Zak



Introduction

The United States is unique in its capacity to integrate immigrants and refugees, both socially and economically, into communities and industries across the country. The U.S. has a reputation for having a welcoming national ethic and for having admitted significant numbers of immigrants of all kinds and creeds, even though its immigration history includes troubling periods of restriction. For centuries, job-seekers, family members, religious asylees, and many others have been drawn to the idea that in America, they might make a better life for themselves and their families. The interests of the American worker and workers' families have been well-served as a result.

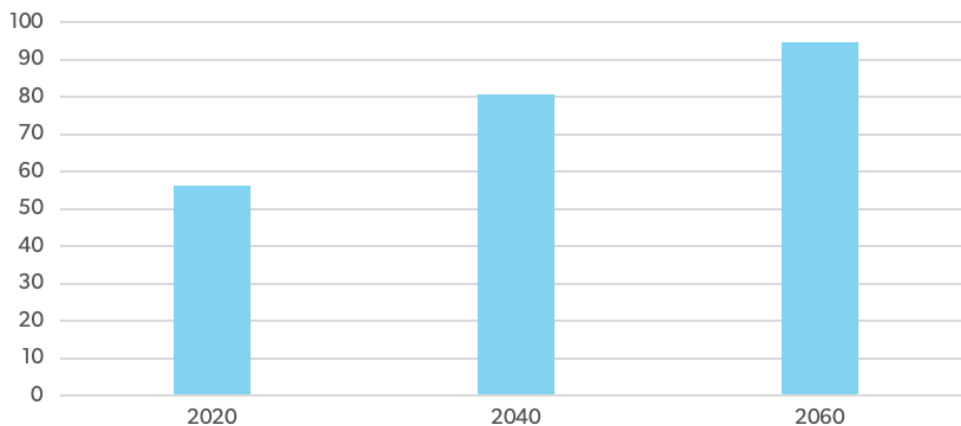
Immigrants — working together with U.S.-born Americans — have been essential in helping to build a more prosperous country that can live up to the ethos of the American dream. Whether by helping to build out critical infrastructure, by serving on our front lines as soldiers and doctors, or by providing for our communities as farmworkers and small business owners, when America needs a hand, it is often the immigrant population that has stepped in, happy to work in partnership to get the job done. Welcoming more immigrants has allowed us all to continue to thrive and progress.

Now, immigrants have another increasingly important role, this time in response to the country's rapidly changing demographics. During a period in which outdated laws and harmful politics have left immigration rates stagnant, America has room to grow. More than that, America needs to grow.

Now, immigrants have another increasingly important role, this time in response to the country's rapidly changing demographics.

The U.S. population is aging, dramatically. Fertility rates are falling, life expectancy is rising, baby boomers are reaching retirement age, and net immigration levels are not high enough to keep pace. According to the U.S. census, nearly one in every four Americans is projected to be 65 years or older by 2060.¹ At that point, 94.7 million people over age 65 will be living in the country — close to twice the number today. At the same time, the overall population is growing at a slower rate than it has in almost a century, leaving unfilled openings in crucial industries such as health care, agriculture, and information technology.

Projected U.S. Population 65 and Older (Millions)



Source: U.S. Census Bureau, [“Demographic Turning Points for the United States”](#)

Without action, this societal restructuring likely will have a profound and negative socioeconomic impact.

You do not have to look closely to see that Americans are already starting to feel these effects. The COVID-19 pandemic has exposed a growing shortage of nurses and physicians as experienced health care providers retire. Annual warnings from the Social Security Administration reveal a fragile pension system on the brink of insolvency. And shrinking local tax bases are devastating local communities, impacting their capacity to provide basic infrastructure and adequate job opportunities to their residents.

Demographic change is a slow-moving but powerful force, one which will have deep-rooted and multigenerational effects. Grim projections of America in 2060 may seem peripheral, even insignificant, when compared with the pressing concerns of today. But the policies we choose today will either address or exacerbate the problems of tomorrow.

What evidence-backed, forward-looking policy might effectively address the negative impacts of demographic aging?

Our analysis suggests that a sustained increase in net immigration levels based on the Old Age Dependency Ratio (OADR), or the ratio of working-age adults to adults at retirement age, provides a natural solution to many of the problems that demographic deficit causes. Immigrants are well-positioned to fill critical shortages, whether in the labor market or the country's demographic composition.

An ethic of welcome is more than a charitable act. It is a clear-eyed solution to a demographic challenge that could torpedo the nation's economy if left unaddressed. Only by intentionally recruiting and integrating immigrants will the U.S. be able to beat back socioeconomic malaise and continue to thrive well into the future.

This approach also offers a remedy to another problem befuddling policymakers: how to set immigration levels. It helps answer the question of whether levels should remain the same, decrease, or increase. While the policy debate typically centers on the merits of each additional immigrant and what kind of immigrant to allow in, most immigration reform proposals have lacked an evidence-backed, forward-looking approach to setting overall immigration levels.

Using publicly available census data and modern demographic concepts, **we project that at least a 37% increase in net immigration levels over those projected for fiscal year 2020 (approximately 370,000 additional immigrants a year) will help prevent the U.S. from falling into demographic deficit and socioeconomic decline.** For more on these figures, see "Methodology," p. 12.

Proposals to increase overall immigration have often been dismissed as politically untenable. But support for immigration is growing even in a polarized political environment, and America has both the ability and the capacity to welcome more people.

For the health and prosperity of American workers and their families, we must reimagine the future of our immigration system.

Part I: Far From Full

On April 7, 2019, the president of the United States took to Twitter to declare, “Our country is FULL.” The sentiment is not in keeping with America’s past: a country built by immigrants, with a legacy of welcome etched into the base of the Statue of Liberty and rooted in our conception of what it means to be American. But the president’s statement is also incongruous with the United States’ present and its collective future, and it is worth delving into the available economic and demographic indicators to better understand why.

Does the U.S. have the capacity to take in more people, now and in the future? Is America full?

A. Opportunities for Growth

At just 87 people per square mile — about the density of Missouri — the United States is currently the 145th most densely populated country in the world, one spot ahead of Kyrgyzstan.² Clearly, the U.S. has the physical space to accommodate more people. But more indicators than just relative population density demonstrate the country’s capacity to welcome. U.S. population growth has been in a steady state of decline since 1992,³ and the population is currently growing at its slowest rate since the 1930s.⁴ As growth slows across the country, population centers in the Midwest and South —

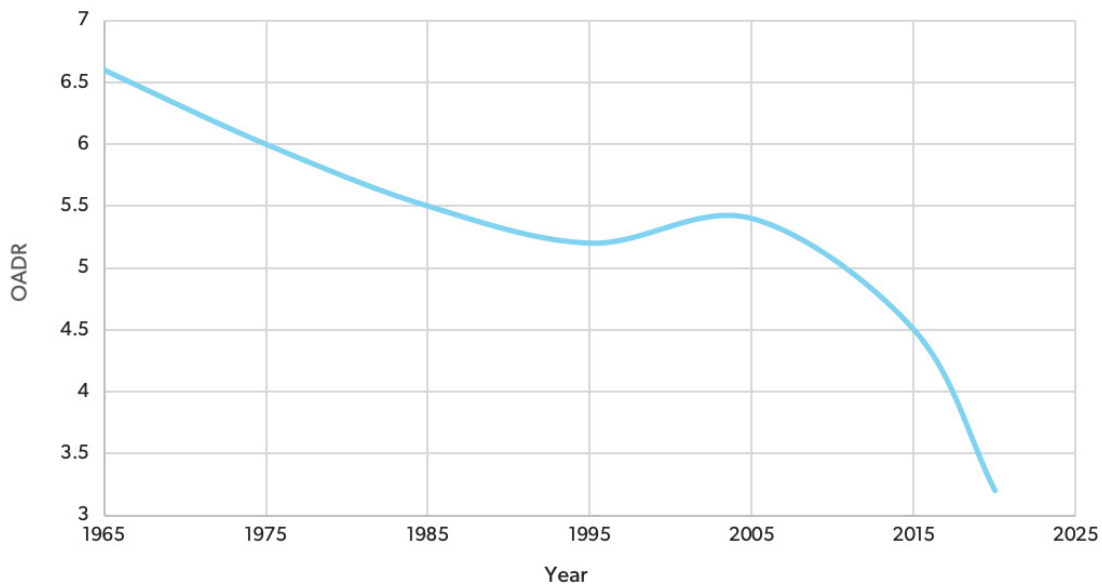
rural and urban alike — are disappearing. Sixty-one million people living in these areas are living in contexts of not just low population growth, but outright population decline. Eighty percent of the U.S. population lives in counties that lost working-age adults over the past decade.⁵ On this trajectory, it will not be possible to create a working-age population to replenish these communities without immigration.

The United States is growing more slowly, and, as a result, the population distribution is shifting older. According to the U.S. census, from 2010 to 2020, the U.S. elderly population — those 65 and older — grew by 39%. Meanwhile, the population of working-age adults grew by just 4% and the total population of children did not grow at all.⁶ These statistics represent a coming demographic deficit, in which there are relatively few working-age adults in proportion to retirees for whom they may need to provide.

In 1965, there were 6.4 working-age adults per adult at retirement age, a ratio commonly called the Old Age Dependency Ratio (OADR).⁷ In 2005, the U.S. OADR hovered around 5.4 working adults per retiree. Today, that number has fallen to just 3.5 (Figure 1). The OADR is an indicator of the overall demographic health of a country, and its decline signals that the U.S. should aim for higher population levels.



Figure 1. Old Age Dependency Ratio Over Time



Source: FRED Economic Data, “[Age Dependency Ratio](#)”

These demographic changes indicate America needs desperately to welcome additional immigrants, and economic markers agree: The country is far from full. In August 2020 – in the midst of an economic crisis – the Bureau of Labor Statistics (BLS) reported 5.9 million unfilled positions.⁸ In 2019, many business leaders reported that the lack of available workers was one of their greatest challenges.⁹ These unfilled positions exist in numerous essential industries. In 2019, farms in Idaho had 1,000 open positions offering almost double the state minimum wage. According to state workforce data, just five American workers applied for the positions. That same year, the BLS reported that over a million positions in computer and information technology remained unfilled.¹⁰

Our collective battle with the COVID-19 pandemic has demonstrated that even during an economic downturn, the immigrant workforce is increasingly indispensable – and labor shortages can be deadly. Essential immigrant workers, together with American-born workers, helped keep the country on its feet as the

pandemic’s effects intensified, but instances of labor shortages in food supply and health care prevented us from giving our best response to the threat. Immigrants are overrepresented in the essential workforce integral to the country’s pandemic response efforts – they are 28% of all physicians, for example, and 43% of all food supply workers.¹¹ Still, when shortages caused multiple states to call for workers to come out of or delay retirement to respond to a health crisis in which older individuals are most at risk, it was a clear sign that the labor market has room for more immigrants.¹²

B. Our Children’s America

Demographics, economics, and even geography suggest that in 2020, immigrants would be well-positioned to participate and contribute to a country facing the perils of demographic contraction. But demographic change moves slowly, and a snapshot of the situation today is incomplete without considering whether our children’s and grandchildren’s America will also have the capacity to take in more immigrants.

Available indicators suggest that America’s ability to welcome more people is only projected to increase in the coming decades. According to the U.S. census, U.S. population growth is projected to be about 2.3 million per year through 2030, drop to 1.9 million per year from 2030 to 2040, and fall to 1.6 million per year by 2060 (Figure 2).¹³ To respond to this expected decline in population growth, the U.S. should welcome more immigrants.

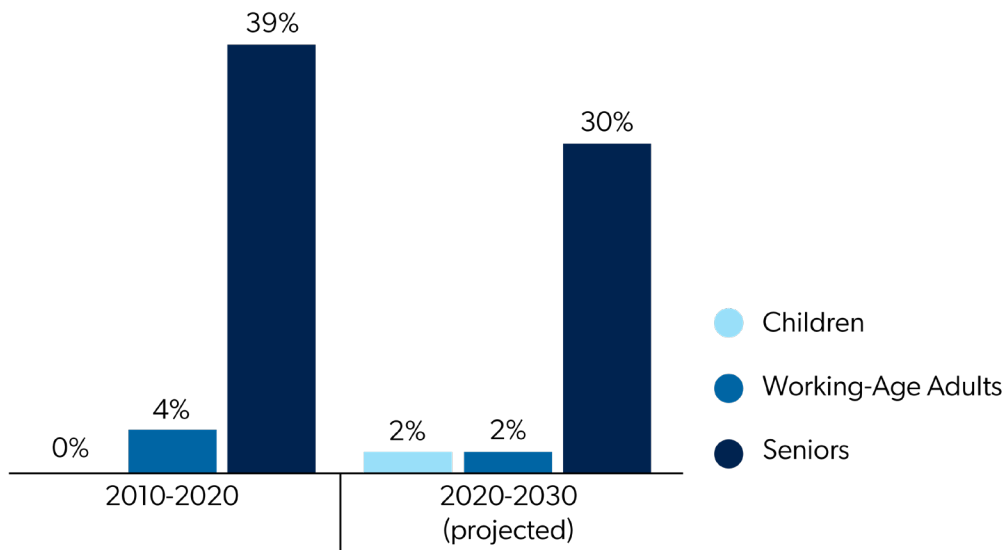
The population is also projected to experience deepening demographic deficit. According to Pew, 10,000 Americans turn 65 every day.¹⁴ As shown in Figure 2, the increasing number of senior citizens will continue to far outstrip the growth in other age brackets over the next 10 years, and the OADR is expected to continue to fall.

Labor market projections for the next few decades also leave little ambiguity: The U.S. economy needs more workers. As the projected

number of working-age adults in the U.S. begins to fall, 15 distinct industries, including nursing, solar panel installation, and software development, are projected to grow by more than 25% between 2018 and 2028.¹⁵ Some of these occupations are growing as a result of the demographic shifts that are expected to occur over the same time period. More than 1 million new home health aide positions, for example, will open by 2026 as more older Americans seek care and assistance.¹⁶ Based on these projections, current trends portend future ones, and America should expect continued contraction in population growth and a surplus of open positions in numerous fields over the next several decades.

The U.S. has the geographical space, demographic makeup, and long-term labor environment to welcome significantly more immigrants. America has the room. But *should* the United States increase immigration levels? And if so, by how much?

Figure 2. U.S. Population Growth by Age Bracket



Source: Brookings Institute, *“America is Not Full. Its Future Rests with Young Immigrants”*

Part II: Where Our Future Lies

The impending negative socioeconomic impacts of long-term demographic change and societal aging are irrefutable, but not unavoidable. Adjusting overall immigration levels is a forward-looking approach that could offset demographic deficit.

A. The Socioeconomic Impacts of Demographic Decline

Absent a well-considered policy response in the next few years, the projected decline in population growth in the U.S. and related demographic aging is likely to have wide-ranging and deleterious effects. A prolonged decline in population growth is broadly associated with a less productive economy, increasing inequality, and place-based socioeconomic decline. Population growth contraction is also linked with demographic aging, a growing problem in the U.S. and one that is set to negatively affect three key areas: Social Security, home and elder care, and overall economic dynamism.

In 2020, the median American is 38 years old. By 2060, that person will likely be retired. They may be relying on savings and Social Security to get by. Perhaps they will be considering what kind of America has been left for their children and grandchildren.

Focusing first on the general effects of declining population growth, evidence increasingly points to a correlation between low population growth and slow economic growth, particularly in high-income countries such as the U.S.

A number of meta-analyses of existing studies on economic growth from around the world support this conclusion, including one by University of Nebraska professor of economics Wesley Peterson.¹⁷ In his study “The Role of Population in Economic Growth,” Peterson concludes broadly that “population growth is an important factor in overall economic growth.”

More specifically, a decline in population growth could be a death knell for some rural American communities. Low population growth has broadly been linked to serious negative place-based effects, a particular problem in the U.S., where population contraction disproportionately affects rural communities in the Midwest and South. An Economic Innovation Group report from 2019 focuses on rural America’s particular demographic challenge. The study describes how population loss has hurt housing markets in these areas, leading to increased vacancies. Governments have been hamstrung by diminishing property, sales, and income tax revenue.¹⁸ As demographer Richard Cragg writes on the differential effects of slowed population growth, “if decline were across the board, smaller communities could become unviable.”¹⁹

Low population growth rates are also linked to significant demographic restructuring. As Peterson writes, “in high-income countries, population growth is low ... giving rise to age structures with a high proportion of elderly people in the population.”²⁰ A number of negative externalities result from this demographic aging, which is projected to worsen in the coming years.

The broad scope of these ill effects has been clear for decades. In 2001, the United Nations Population Division concluded that “population aging and decline have profound and far-reaching implications, especially for pension programs, health care systems, and the economic vitality and growth of a country.”²¹

Concerning “pay-as-you-go” pension systems like Social Security, demographic aging means fewer people paying into a system that is providing for more and more retirees. In September 2020, the United States Social Security Administration warned Congress that its Old Age and Survivors Insurance (OASI) reserves will “become depleted” in 2034. At that point, it would no longer be able to provide full benefits to what would then be an exploding population of economically inactive older adults — those who would no longer be working.²² That date could come even sooner due to a recent decrease in payroll tax revenue during the COVID-19 pandemic.²³

A number of industries could soon be in crisis if a shrinking workforce is unable to meet the country’s changing needs. An example of this is the significant projected labor shortage in health care, particularly in the home health care and elder care sectors. Home health care is a \$100 billion — and growing — industry, and the Bureau of Labor Statistics reported that it is projected to have the most new job openings of any industry measured due to the combined effects of population aging and the growing rate of chronic conditions.²⁴ That means millions of elderly and disabled Americans will be left without access to the care they need.

Another specific impact of demographic deficit is the decline and decay of basic American services

and infrastructure. Having fewer working-age people means a shrinking taxbase, which in turn makes it more difficult for local and federal

“Population aging and decline have profound and far-reaching implications, especially for pension programs, health care systems, and the economic vitality and growth of a country.”

– United Nations Population Division

governments to provide basic services such as firefighting, education, policing, and road repair. As demographer David Coleman writes on the public service effects of demographic aging, “eventually, the State may have to abandon some of the infrastructure — amalgamating schools and hospitals and restricting repairs.”²⁵ Federal and local governments may have to institute higher taxes on Americans to stave off some of these effects — another potential result of population decline.

Many have also warned of broader negative effects on U.S. economic health and dynamism. Over time, demographic aging is likely to significantly reduce consumption, savings, public social expenditure and overall human capital, driving a reduction in per-capita income.^{26,27,28} Demographic aging has also been associated with a decline in economic dynamism. A decline in the number of working people leads to depressed demand and consumption, which in turn discourages entrepreneurialism by forcing new businesses to compete with existing ones for a limited number of customers.

Demographic aging also may have a significant negative effect on housing markets, and not just in smaller, rural communities. Demographer Dowell Myers, who directs the Population Dynamics Research Group at the University of Southern California, has described how a number of older Americans have a significant portion of their wealth invested in their homes.²⁹ Myers notes that an increasing number of these retirees looking to downsize and sell their homes may find a scarcity of buyers, resulting in a host of compounding economic ill-effects. While housing prices have remained stable and even risen in recent years as baby boomers begin to retire, the conditions Myers predicted may still come to pass as the country continues to age.

With the expectation that both population growth and the Old Age Dependency Ratio will continue to fall, the U.S. risks falling into severe age dependency, which can be characterized by a failed Social Security system, the inability to properly provide health care to the elderly, and stagnant or declining federal and local economies. America is not there yet, but if demographic deficit is allowed to continue unchecked through 2060, the median U.S. resident of today may then gaze upon a weakened America — a country unable to properly care for its elderly or provide basic services to its people, one with falling per capita GDP and many communities at risk.

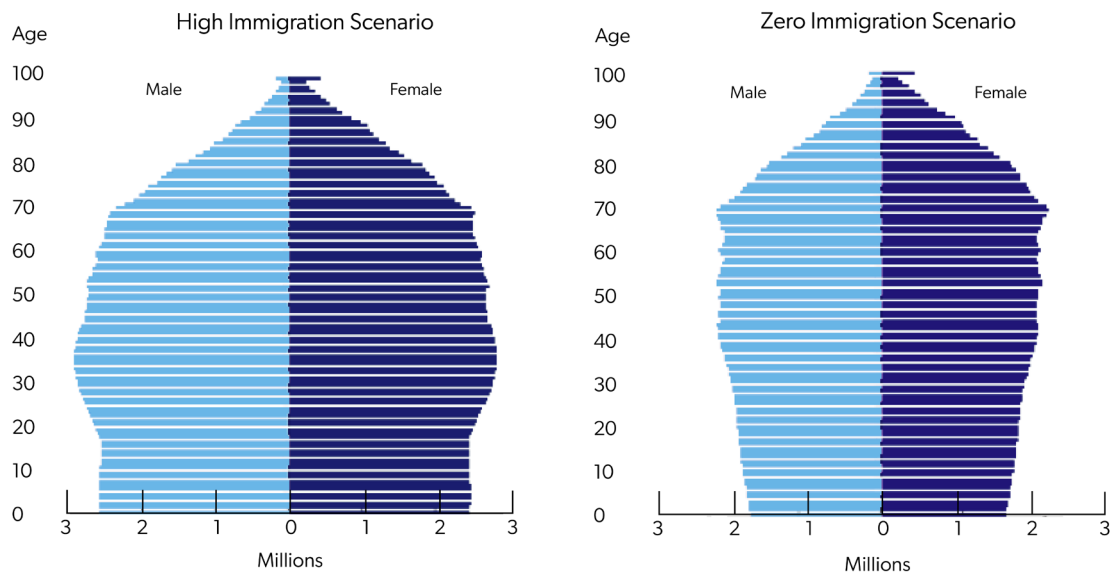
B. The Benefits of Immigration

Given the significant negative effects of population aging and demographic deficit, policymakers and academics alike have long considered a range of potential policy responses. Most of these potential solutions have proven to be either impractical (e.g., engineering higher fertility rates) or politically unpalatable (e.g., significantly raising the retirement age) and, therefore, difficult to embrace.

Increasing net immigration levels presents a more appealing solution — albeit one that is controversial in its own right — for many of those who recognize the dangers of demographic deficit. Because immigrants tend to come to the U.S. during their prime working and productive years, recruiting and welcoming more of them is an intuitive answer to the problems posed by demographic decline.³⁰ Immigrants could also help restore solvency to “pay-as-you-go” pension systems like Social Security.³¹ They tend to be more entrepreneurial than their U.S.-born counterparts and bring economic growth to the communities they reside in.³² According to a September 2020 study, immigrants are 80% more likely than native-born workers to be entrepreneurs and small business owners.³³ In summary, immigrants are job creators, working shoulder to shoulder with U.S.-born citizens to bring prosperity to communities across the nation.



Figure 3: Impact of Increased Migration on Demographic Composition³⁴



Source: U.S. Census Bureau, *“A Changing Nation: Population Projections Under Alternative Immigration Scenarios”*

The concept of increasing immigration to account for demographic decline has been present since the earliest discussions of demographic deficit. The 2000 U.N. Population Division (UNPD) report, one of the first to raise the solution as a possibility, concluded that increasing immigration can be used to reduce and delay the effects of U.S. population aging. But the U.N. report noted that to completely reverse those effects, the U.S. would need to accept more than 10 million immigrants a year, an impractical increase.³⁵ Misread in some quarters as prescribing that massive increase in immigration, the report was circulated widely but broadly dismissed as recommending a solution that was politically dead on arrival. Others have questioned whether increased immigration is a durable solution to the problem of age dependency, noting that immigrants age and retire just as native-born Americans do.

But the efficacy of the UNPD’s central idea of increasing immigration levels to respond to demographic deficit is increasingly supported by leading demographers and economists. “The evidence is that migrants contribute to public welfare such as pensions, health care, and

personal care, but usually do not draw on them, at least immediately,” writes demographer Sarah Harper, in an overview of much of the recent academic work on the issue. She concludes: “There is a general consensus in the literature that migration is a valid policy approach in the context of a demographic deficit.”³⁶

The concept has continued to pick up support in recent years. A 2019 study used contemporary demographic techniques to validate the original U.N. conclusion for a series of European countries, demonstrating that setting immigration levels based on demographic targets may not be so impractical after all.³⁷ A 2018 working paper from George Mason University sociologist Jack Goldstone concluded that in the context of demographic change, “the vital contributions of immigrants to America’s economy and society are being minimized or overlooked.”³⁸ A 2020 Brookings Institute report analyzed recently released U.S. Census Bureau data on demographic decline and concluded bluntly: “Immigration is essential to counter sharp declines in growth.”³⁹

The demographic composition of immigrants as a group allows them to make an outsized impact in the country's fight against demographic deficit. The average age of newly arriving immigrants is 31, and each new cohort of immigrants includes more than 19 working age-adults per elderly person. **Figure 3** demonstrates the significant impact U.S. immigration can have on the country's demographics, highlighting that if immigration levels were to drop to zero, the median American would soon be over 45-years old and the number of Americans 65 and older would increase by 73%.⁴⁰

Immigrants can also help mitigate the negative impacts of demographic aging on housing markets. Across the country, increased immigration may be necessary to "grow the next generation of home buyers."⁴¹

Increased immigration is not a silver bullet, and the literature is clear that it will take a combination of policy responses to combat the effects of socioeconomic decline. But it is also clear that pragmatic increases to immigration levels will have significant and durable beneficial effects and can stave off many of the problems associated with demographic deficit.

Part III: Setting Immigration Levels

The looming socioeconomic impacts of population growth decline and demographic aging provide a strong argument for a sustained increase to overall immigration levels. Relying on updated Old Age Dependency Ratio projections, we project a specific, forward-looking immigration target that would help prevent the significant negative effects of age dependency by 2060. For a discussion of how this method fits into other approaches to immigration level setting, see the **Appendix**.

A. Using Dependency Ratios to Set Immigration Levels

The OADR is an appropriate benchmark against which to set immigration levels because it is a telling indicator of overall demographic health. It is closely correlated to both population growth contraction and the specific ill effects associated with demographic decline.

Dependency ratios such as the OADR are regularly used by demographers to model the demographic impact of various migration scenarios. The scenarios in the original 2000 U.N. report, for example, model immigration levels in accordance with various OADR cutoffs. In 2018, the Canadian Advisory Council on Economic Growth released recommendations for raising immigration levels based on OADR projections.⁴²

In 2020, the U.S. Census Bureau produced a report series that included four alternative migration scenarios and modeled their impact on the OADR. The scenarios included zero immigration until 2060, low immigration (50% decrease from 2015), static immigration levels, and high immigration (50% increase).⁴³ The report confirmed that in the U.S. context, increased migration would decrease age dependency.

Some studies have used an Old Age Dependency Ratio of three working adults per retiree as a cutoff signifying severe age dependency, but there is no agreed-upon universal ideal OADR, just as there is no ideal population growth rate. Rather, there is a range of healthy and unhealthy age dependency ratios which depend on several factors, including the relative strength of the country's economy, welfare programs, and health care and pension systems.

Demographers generally agree that the U.S. is already beginning to see warning signs portending the many negative consequences of increasing demographic deficit. The country is facing an increasingly fragile Social Security

program and large and growing weaknesses in the labor market. Smaller, rural communities are losing working-age adults, and along with them the vitality and dynamism they bring to local economies. These warning signs threaten to blossom into crises if the age dependency ratio continues to decline.

At minimum, it is vital that the U.S. prevent this decline and do what it can to maintain the current dependency ratio, 3.54 working adults per retiree. This paper uses this number to set immigration levels over the next four decades. Simply sustaining OADR maintenance by 2060 will not be a panacea for all of our demographic woes. But it is a reasonable initial target that — if achieved — would make a tangible difference in halting American decline into severe age dependency.

B. Theoretical Framework: An Updated OADR

Most prior approaches to projecting age dependency have used the standard OADR — the ratio of “prime working-age” adults to “retirement age” adults — to model the demographic impacts of various migration scenarios. However, recent developments in demography recognize this is not the most precise way to measure age dependency.

Demographers have noted that the OADR assumes all adults over 65 are economically inactive “dependents,” while all working-age adults are considered economically active.⁴⁴ In reality, many older adults are active participants in the labor economy. The number of older adults misrepresented as inactive dependents could rise as life expectancy increases, health outcomes improve, and average retirement age inches up. By contrast, as higher education rates rise among younger cohorts, they will, on average, spend longer in school and delay entering the workforce. The result is that more of them may be economically inactive than is typically accounted for by standard OADRs.⁴⁵

Demographers Warren Sanderson and Sergei Scherbov have developed the “prospective-age” concept, which reconstructs the “old-age” population based on projected life expectancy to more accurately determine economic participation rates.⁴⁶ This more dynamic demographic approach recognizes that immigration is one of a variety of factors which may influence — and ameliorate — the impacts of demographic deficit. This paper incorporates the prospective-age concept in the calculation of an appropriate immigration level, allowing for a more accurate representation of future age dependency.

C. Calculating an Immigration Level

Based on U.S. Census Bureau data, the net migration rate, life-expectancy projections, and prospective Old Age Dependency Ratio projections, an approximate **37%** increase in annual immigration levels is required to help maintain the current age dependency ratio by 2060 and reduce the ill effects associated with significant demographic decline. This 37% increase equates to approximately **370,000** additional immigrants each year.⁴⁷ The derivation of these numbers is explained in further detail in the Methodology section below.

D. Methodology

In order to calculate necessary immigration levels to keep the prospective OADR static, we assume that the age distribution of new immigrants will be the same as the age distribution of new immigrant arrivals from 2014 to 2017. We also assume that non-immigrant and unauthorized immigrant entry and exit rates will remain static, and that new immigrants will live to age 80, which is the average life expectancy projected by the U.S. Census for 2020. We based total population projections and projected life expectancy on data from the 2017 Census Bureau National Population Projection (NPP) Tables.

Table 1: Projected OADR: Maintenance Migration Scenario⁴⁸

Year	Working Age Population (millions)	Elderly Population (millions)	OADR
2020	198	56	3.54
2030	202	73	2.76
2040	211	81	2.61
2050	220	86	2.57
2060	225	95	2.37

Source: Authors' calculation based on data from the 2017 National Population Projections

We use the NPP “Single Year of Age” maintenance migration level table to determine the projected Old Age Dependency Ratio. In 2020, the U.S. OADR is 3.54. If immigration levels are held constant and the prospective-age concept is not applied, the OADR at 2060 is projected to fall to 2.37.

The steep drop in OADR will have significant socioeconomic effects and signals a decline into

severe age dependency. However, by adjusting demographic cutoffs using prospective age effects and increasing immigration levels, we can take steps to reverse OADR decline.

As shown in **Table 2**, we apply prospective age effects by projecting that, on average, economic inactivity will begin with 15 years left of projected life expectancy.⁴⁹

Table 2: Demographic Cutoffs with Prospective Age Effects

Year	Life Expectancy	Remaining Life Expectancy = 15	Working Age Population	Elderly Population
2020	80	65	19-64	65+
2030	82	67	19-66	67+
2040	83	68	19-67	68+
2050	84	69	20-68	69+
2060	85	70	20-69	70+

Source: Authors' calculation based on data from the 2017 National Population Projections

The use of prospective age effects improves the outlook for the U.S. OADR, but it does not bring the OADR to maintenance levels. An increase in net immigration is necessary to achieve maintenance. We calculate this by projecting the impact of a given increase in immigration on the overall U.S population distribution. We base our calculation on the cohort-component method, which involves incorporating multiple demographic inputs to project population growth. To calculate the additional migrant population for a given year t at each age cohort, we used the equation:

$$MP_{a_t} = m_{a_o} + MP_{a-1_{t-1}}$$

Where:

MP_{a_t} = Additional immigrant population at age a during year t

m_{a_o} = Proposed annual additional immigrant population by single year of age, based on the age distribution of recently arrived immigrants from the 2017 U.S. Census Bureau Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC)

$MP_{a-1_{t-1}}$ = Additional immigrant population at age $a-1$ during year $t-1$

For relevant ages, the projection also factors in births and deaths among the additional immigrant population from time $t-1$ to time t , derived from the U.S. foreign-born fertility rate and foreign-born gender composition from the 2019 American Community Survey, as well as average life expectancy from the 2017 National Population Projection Tables.

Using a model based on this equation and the NPP “Single Year of Age” maintenance migration scenario projections, we increased proposed immigration levels until the prospective OADR at 2060 equaled 3.54 working adults per retiree, or maintenance levels.

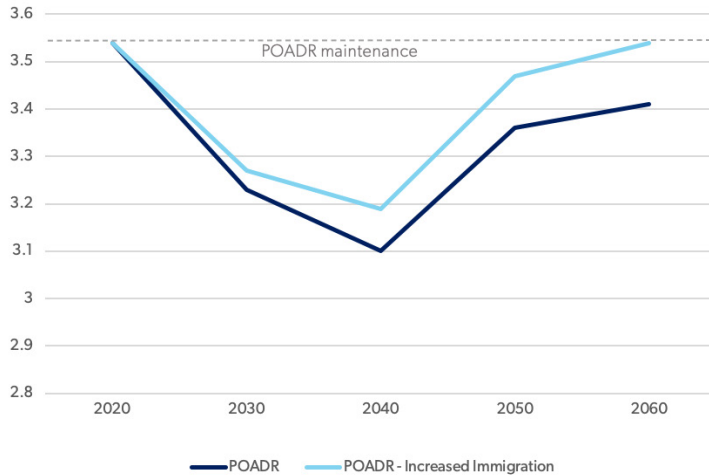
Based on the aforementioned data and assumptions, we project that in order to keep the OADR stable between 2020 and 2060 and prevent significant further decline into age dependency, an increase of approximately one-third — specifically 37% — in annual immigration levels is required (**Table 3**).

Table 3: Projected OADR: Increased Migration Scenario

Year	Working Age Population (millions)	Elderly Population (millions)	OADR
2020	198	56	3.54
2030	213	65	3.27
2040	224	70	3.18
2050	242	70	3.47
2060	257	73	3.54

Authors’ projections based on data from the 2017 National Population Projections, the 2017 Current Population Survey, and the 2019 American Community Survey.

Figure 4: Increased Immigration Scenario: Impact on Prospective OADR



Source: Authors’ projections based on data from the 2017 National Population Projections, the 2017 Current Population Survey, and the 2019 American Community Survey.

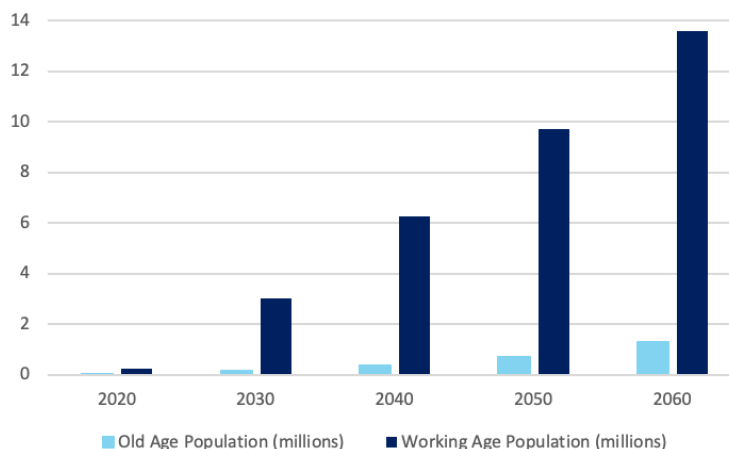
This equates to approximately 370,000 additional immigrants a year. The impact of this increase in immigration on the prospective OADR is shown in Figure 4.

Figure 5 reflects the age distribution of the proposed additional immigrant population from 2020 to 2060. The figure demonstrates the particular impact increased immigration would have on boosting the U.S. working-age population.⁵⁰ This breakdown further demonstrates the durable impact of increased immigration on the demographic composition. Even 40 years later in 2060, the proposed

increase in immigration levels would result in the addition of more than 10 working-age adults for every retiree. Immigrants age too, but this analysis reveals that our proposed level of increase in immigration levels would have a prolonged and significant impact curbing age dependency.

A sustained increase of at least 370,000 immigrants annually through 2060 would help forestall many of the negative socioeconomic outcomes associated with age dependency and keep the OADR at 2020 levels.⁵¹

Figure 5: Age Distribution of Proposed Additional Immigrant Population



Source: Authors’ projections based on data from the 2017 Current Population Survey and the 2019 American Community Survey.

Part IV: Policy Implications

This paper proposes setting a forward-looking, evidence-backed immigration level that is based on responding to the ill effects of demographic decline. In considering the benefits of this approach, it is important to clarify a number of relevant policy implications.

A. One Size Fits All

A demographic approach to setting immigration levels recognizes the potential value of all immigrants. It also recognizes that immigration policy should reflect the nation's values. The determination of whom we let in and why is not an easy numeric calculation, but the overall number of whom we should let in, in contrast, is more straightforward to calculate. A demographic analysis does not need to prioritize or discriminate between immigrants who come via employment-based, family-based, or humanitarian categories. Instead, the model recognizes that immigrants arriving for different reasons may help combat demographic decline in different ways. An immigrant who comes for work, for example, may be best equipped to fill imminent labor shortages left by an aging population. An immigrant who comes to reunite with and build a family will be spurring future growth and tackling the demographic problems at their root. Refugees, meanwhile, tend to resettle in less-dense population centers, reinvigorating communities that are already bearing the brunt of demographic deficit.

...the model recognizes that immigrants arriving for different reasons may help combat demographic decline in different ways.

Likewise, this approach is meant to supplement – not act as an alternative to – broad-based immigration reform solutions. As consensus grows for change to improve an outdated, cumbersome, and inflexible immigration system, a variety of economists, think tanks, and legislators have proposed numerous platforms and comprehensive reform proposals. These proposals have allowed for a rich, evidence-backed debate about the structure of a new U.S. immigration system: How should the system distribute visas? And who should be prioritized? Because it does not seek to answer these questions, a demographic approach to immigration level-setting should be incorporated into all of these proposals. Prioritizing certain immigrants or pathways to status would not significantly alter the calculation detailed in Part III.

Although setting an immigration level based on the OADR does not set priorities among immigrants or immigration systems, there are ways reform platforms could reinforce this approach to better respond to demographic decline. Possible reforms include increasing nonimmigrant pathways for in-demand occupations such as home and elder care, prioritizing a younger overall immigrant population, and targeting immigration flows to areas that will be hit the hardest by demographic deficit.

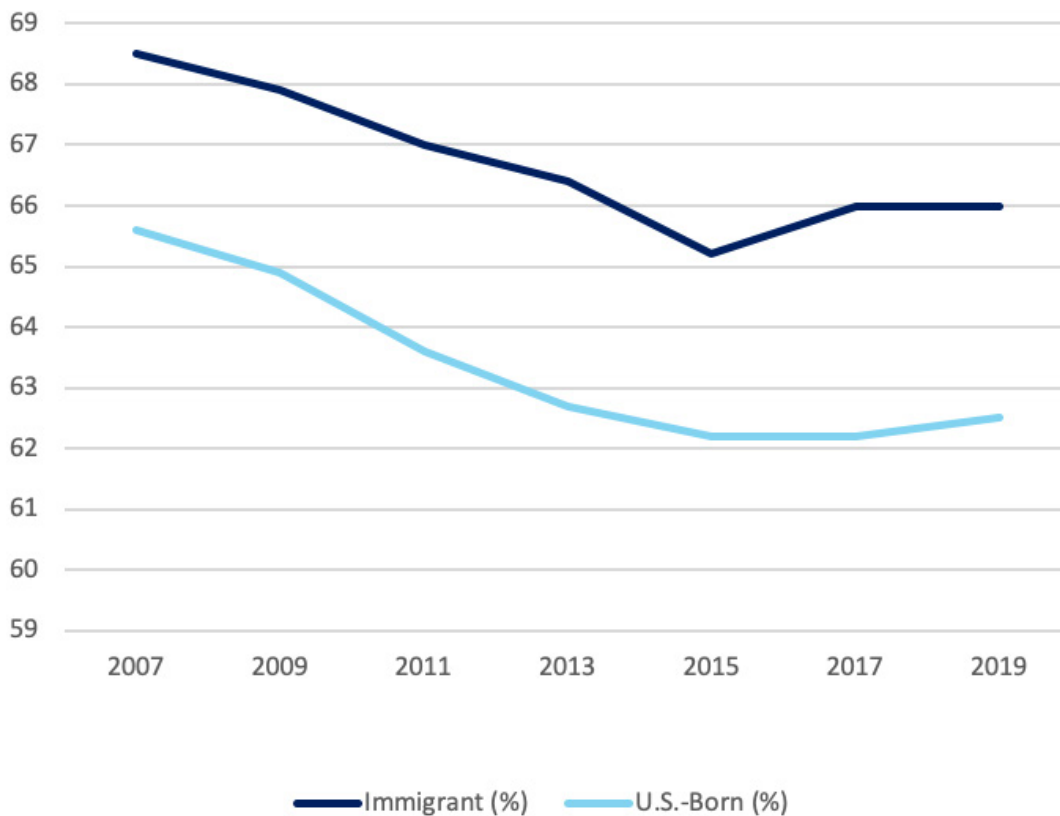
B. Engaging Potential Criticisms

Some past criticisms of using increased immigration to respond to demographic deficit have focused on the impractical and politically problematic nature of sharp increases in immigration. Others have noted that it would be difficult for the country to effectively integrate additional immigrants.

A healthy debate over appropriate immigration levels continues. This analysis should add to that debate and — hopefully — contribute to more popular support for an increase in overall levels to respond to demographic deficit.

Available polling data suggests that there is already growing popular support for increasing legal immigration. In 2020, Gallup reported that for the first time, more Americans support increasing immigration levels than decreasing them.⁵² The same poll found that 77% of all Americans believe immigration is good for the country. If Americans knew more about the role immigrants could play in responding to demographic deficit, it is likely that popular support for increasing overall immigration levels would grow.

Figure 6: Immigrant Labor Force Participation Rate (2007-2019)



Source: [U.S. Bureau of Labor Statistics, Labor Force Characteristics of Foreign Born Workers](#)

Concerning objections related to the ease of integrating additional immigrants, we argue that integration should not be seen as a barrier to increasing immigration levels. As discussed at length in Part I, available indicators demonstrate the U.S. has more than enough room to welcome additional immigrants. America has also proven to be effective at integrating new arrivals. Despite the numerous challenges and barriers posed by an outdated immigration system, immigrants in the U.S. have a higher employment rate and labor participation rate than native-born citizens (**Figure 6**), and immigrant children tend to meet and exceed educational standards set by comparable U.S.-born children.⁵³ Americans

are generous in spirit, and are relatively quick to welcome immigrants and their children as members of their communities.⁵⁴ Integration challenges remain, but these can be met with innovative programming and investment.

It is also important to note that immigration increases need not come at the exclusion of other measures that may be effective in combating demographic deficit. Policymakers can combine raising immigration levels with other approaches such as supporting families, supporting skills and workforce development, ensuring the elderly are financially secure, and investing in elder health care.



Policy Recommendations

1. Congress should pass legislation to increase immigration levels by at least one-third in response to the socioeconomic impacts of demographic aging.



The United States is likely to fall into severe age dependency within the decade, which is likely to bring a weakening Social Security system, critical and growing labor shortages in a number of essential industries, and an overall decline in economic health and vitality. Increasing immigration levels by 37% would help protect the country's elderly population and combat the range of negative externalities associated with an aging population. As a partial solution, the President and executive agencies can provide humanitarian visas and resettle refugees in numbers that demonstrate our global leadership in welcoming the most vulnerable, but such an increase in net immigration levels can only be achieved sustainably through legislation. Congress must recognize the urgency of this problem and work together to raise green card caps and pave new pathways to permanent status such as for talented international students and entrepreneurs.

2. Congress should incorporate and publicize demographic impact analyses in all immigration reform proposals.



Congress should recognize that U.S. immigration policy is inextricably linked to the demographic structure of the country. Before passing any legislative reforms that impact the composition or level of immigration, Congress should consider analyses of the proposals' demographic impact and, when appropriate, "score" proposed legislation based on analyses of the proposal's demographic impacts. It should use these demographic analyses to make informed immigration policy decisions that address and respond effectively to the rapid demographic changes likely to impact the country in the decades to come.



3. Government officials and the private sector should encourage immigrant integration efforts to ensure new Americans reach their full potential and have the opportunity to contribute and thrive at the workplace and in our communities.

Increasing immigration to the U.S. by one-third will come with challenges. But coordinated efforts by federal, state, and local elected officials and the private sector to support investment in immigrant integration services will serve multiple purposes. Such efforts will build social cohesion, increase productivity, and deepen civic engagement. Integration efforts could include investing in contextualized English language learning courses at the workplace, starting or bolstering Offices of New Americans, or investing in degree transfer programs for immigrants who have foreign accreditation. Integration efforts could also include a focus on including immigrant entrepreneurs in Small Business Owner programs, and supporting programs that allow immigrant students to reach their full potential in American schools. Investing in opportunities and skills for new Americans creates jobs for others and helps to revitalize local economies.

Conclusion

Demographic aging is a long-term problem, and evidence suggests that a sustained increase in immigration levels can be part of an effective policy response. Immigrants already play a crucial role in our economy and our communities, and they represent a natural solution to the problems posed by the country's changing demographics. Already in 2020, immigrants are helping to meet growing labor market demands, providing services for an increasing elderly population, and spurring vitality and growth in local communities.

The country will need more immigrants in order to continue to thrive and beat back the looming ill effects of demographic deficit. But it has been more than three decades since the last major reform to the legal immigration system. U.S. immigration flows are unresponsive to the demands of today, a point made clear by the fact that immigration categories of all types —

employment-based, humanitarian, family — are massively oversubscribed and face significant backlogs.

Bringing all this evidence to bear, policymakers can set evidence-backed immigration levels that combat the worst effects of demographic decline and protect the nation's social and economic health. We use prospective age and the cohort-component method to set a target level of immigration, recommending an annual immigration increase of at least approximately 37%, or 370,000.

A modern immigration system is necessary to respond to modern challenges, and increasing immigration levels will help us both provide for our elderly population and give us confidence in the country we are leaving to our children and grandchildren.



Appendix: Approaches to Setting Immigration Levels

Where does an OADR-based approach fit into other approaches to setting immigration levels?

Alternative approaches to setting overall immigration levels can generally be split into two camps. The first objects to setting a number at all, while the second calls for changing the immigration cap based on outside comparison points. The proposals discussed in this appendix illustrate many of the challenges of setting an evidence-backed overall immigration level.

A. An Objection in Principle

Many academics, economists, and advocates have argued that it is counterproductive to promote a specific, evidence-backed, “optimal” immigration level. Those advancing these arguments include supporters of market-based approaches, uncapped points-based systems, and the primacy of political choice.

Supporters of market-based approaches point out that in a more productive and flexible immigration system, overall numbers are set by the market rather than by a centralized decision-making body.⁵⁵ Under this approach, the government would be involved only in setting the terms by which the market operates. This is already how we treat the movement of goods across borders: We set terms and tariffs for the importation of tomatoes, for example, rather than putting a cap or goal for the total amount of produce.

Supporters of uncapped points- or merit-based immigration systems make a similar argument. These approaches define a qualified immigrant, and then let anyone who qualifies into the U.S. Economist Doug Holtz-Eakin writes:

“Instead of asking Congress to speculate about economic demands by setting caps that limit potential U.S. human capital, we propose that the level of immigration should be equal to the number of qualified applicants seeking entry.”⁵⁶

The U.K. Migration Advisory Committee (MAC) serves as a model for how evidence and data can be incorporated into decisions about how to construct an immigration system. But the MAC has historically refrained from using their methodology to advocate for specific immigration levels. They write: “A cap may be an important political strategy ... but it is important to recognize it has an economic and social cost.”⁵⁷

Yet another stance argues that an ideal immigration level should be set based on data and evidence, but allow a role for political decision-making as well. “Immigration is not, and never will be, a purely technical issue. ... Policymakers cannot rely on independent experts alone to identify the “optimal” amount ... of immigration, since there is no single correct answer that is independent of values and policy preferences.”⁵⁸

B. Theories of Relativity

Most of those who have forged ahead with setting overall immigration levels have suggested simply adjusting our current caps to various outside comparison points.

One such approach calls for bringing U.S. immigration levels to historical rates. President Donald Trump seemed to call for this method in a 2016 campaign speech, arguing that we should “keep immigration levels within historical norms.”⁵⁹ As economist Daniel Griswold notes, the U.S. immigration rate has varied over time, but has averaged about 4.3 immigrants per 1,000 inhabitants between 1820 and 2000. To get to 4.3 today, Griswold estimates the country would need to issue approximately 30% more green cards.⁶⁰

Another, similar approach consists of bringing U.S. immigration rates level with those of “peer countries” around the world. Recent reform proposals by Mercatus and others adopt this line of reasoning, calling for increased immigration levels to bring the U.S. in line either with overall per capita immigration rates or with the proportion of immigrants in the total population of comparable countries such as Canada or the U.K.

A final “theory of relativity” consists of using “actual” immigration levels as a reference point. This approach suggests finding a proxy for true green card demand by adding unauthorized immigration and temporary legal migrants filling permanent jobs to green card levels. In 2006, MPI calculated that net “actual” permanent immigration was about 2 million a year and recommended raising green card caps to meet it.⁶¹

C. A New Approach

Despite valid concerns raised by those objecting to setting clear immigration levels, setting forward-looking and evidence-backed targets remains vitally important. The slow pace of reform means any new immigration system will likely be in place for decades. It is critical that policymakers create a system that can respond to challenges of the future, not just the present.

Demography is a natural vehicle for precise, forward-looking immigration level setting. Demographic aging is a long-term problem that demands action, and all available evidence suggests that a sustained increase in immigration levels is an effective policy response. Bringing this evidence to bear, policymakers can set projective immigration targets that respond to demographic evidence and protect America’s socioeconomic health.

End Notes

- ¹ Jonathan Vespa, Lauren Medina and David Armstrong, “[Demographic Turning Points for the United States](#),” U.S. Census Bureau, February 2020.
- ² Ezra Klein, “[America Isn’t Full](#),” *Vox*, April 9, 2019.
- ³ “[Population Growth \(Annual %\) – United States](#),” Accessed Sept. 28, 2020.
- ⁴ Mark Mather et al., “[What the 2020 Census Will Tell Us About a Changing America](#),” *Population Bulletin* 74, no. 1 (2019).
- ⁵ Adam Ozimek, Kenan Fikri and John Lettieri, “[From Managing Decline to Building the Future](#),” *Economic Innovation Group*, April 2019.
- ⁶ William Frey, “[America Is Not Full. Its Future Rests with Young Immigrants](#),” *Brookings Institute*, April 10, 2019.
- ⁷ In this report, we use a version of the OADR called the “Potential Support Ratio” or PSR.
- ⁸ “[Job Openings and Labor Turnover Survey](#),” *U.S. Bureau of Labor Statistics*, Sept. 9, 2020.
- ⁹ Jim Glassman, “[Help Wanted: Why the U.S. Has Millions of Unfilled Jobs](#),” *JP Morgan*, Jan. 29, 2020.
- ¹⁰ Christine McDonnell, “[Why Tech Has a Shortage of Skilled Workers](#),” *EdTechDigest*, Jan. 16, 2019.
- ¹¹ Susan Ferriss and Joe Yerardi, “[Trump Attacks Them. COVID-19 Threatens Them. But Immigrants Keep the U.S. Fed](#),” *Center for Public Integrity*, Sept. 28, 2020.
- ¹² “[Coronavirus May Call on Retired Medical Workers to Come Back to Work](#),” *NPR*, March 17, 2020.
- ¹³ “Demographic Turning Points for the United States,” *U.S. Census Bureau*.
- ¹⁴ Russel Heimlich, “[Baby Boomers Retire](#),” *Pew Research Center*, December 29, 2010.
- ¹⁵ “[Projections Overview and Highlights, 2018-28](#),” *Bureau of Labor Statistics*, October 2019.
- ¹⁶ Bob Woods, “[America’s \\$103 Billion Home Health Care System Is in Crisis as Worker Shortage Worsens](#),” *CNBC*, April 9, 2019.
- ¹⁷ Wesley Peterson, “[The Role of Population in Economic Growth](#),” *SAGE Open*, 7(4), Oct. 1, 2017.
- ¹⁸ Ozimek et al., “From Managing Decline to Building the Future.”
- ¹⁹ David Coleman and Robert Rowthorn, “[Who’s Afraid of Population Decline? A Critical Examination of Its Consequences](#),” *Population and Development Review*, 37, 2011, pp. 217-248.
- ²⁰ Peterson, “The Role of Population in Economic Growth.”
- ²¹ “[Replacement Migration: Is it a Solution to Declining and Aging Populations?](#),” *United Nations Population Division*, 2001.
- ²² “[Social Security Combined Trust Fund Reserves Depletion Year Remains 2034 Says Board of Trustees](#)” *U.S. Social Security Administration*, April 22, 2020.
- ²³ Paul Brandus, “[Thanks to COVID-19, Social Security’s Day in Court May Be Even Closer Than We Thought](#),” *Market Watch*, May 16, 2020.
- ²⁴ Woods, “America’s \$103 Billion Home Health Care System.”
- ²⁵ Coleman and Rowthorn, “Who’s Afraid of Population Decline?”
- ²⁶ Loretta Mester, “[Demographics and Their Implications for the Economy and Policy](#),” *Cato Journal*, Spring/Summer 2018, Nov. 16, 2017.
- ²⁷ Sarah Harper, “[The Important Role of Migration for an Ageing Nation](#),” *Journal of Population Aging*, 9, Aug. 4, 2016, pp. 183-189.
- ²⁸ N. Renuga Nagarajan, Aurora A.C. Teixeira and Sandra T. Silva, “[The Impact of an Aging Population on Economic Growth](#),” *Análise Social*, 51(218), 2016, pp. 4-35.
- ²⁹ Dowell Myers, *Immigrants and Boomers: Forging a New Social Contract for the Future of America* (New York: Russel Sage Foundation, 2007).

- ³⁰ [“2017 CPS ASEC Research File,”](#) U.S. Census Bureau, 2017.
- ³¹ Leah Zallman et al., [“Care for America’s Elderly and Disabled People Relies on Immigrant Labor,”](#) *Health Affairs*, 38(6), June 2019.
- ³² Jason Wiens and Dane Stangler, [“The Economic Case for Welcoming Immigrant Entrepreneurs,”](#) *Kauffman Foundation*, March 26, 2014.
- ³³ Pierre Azoulay et al., [“Immigration and Entrepreneurship in the United States,”](#) *NBER Working Paper No. w27778*, September 2020.
- ³⁴ This figure portrays two population pyramids, which are used by demographers to depict the distribution of age and sex in a given population.
- ³⁵ “Replacement Migration,” United Nations Population Division.
- ³⁶ Harper, “The Important Role of Migration for an Ageing Nation.”
- ³⁷ Daniela Craveiro et al., [“Back to Replacement Migration: A New European Perspective Applying the Prospective-Age Concept,”](#) *Demographic Research*, 40, May 17, 2019.
- ³⁸ Jack Goldstone, [“Immigration to the U.S.: Facts, Fears, and Fiction,”](#) *George Mason Center for the Study of Social Change*, Working Paper #1, 2018.
- ³⁹ William Frey. [“Reducing Immigration Will Not Stop America’s Rising Diversity,”](#) *Brookings Institute*, Feb. 19, 2020.
- ⁴⁰ “A Changing Nation: Population Projections Under Alternative Immigration Scenarios” *U.S. Census Bureau*.
- ⁴¹ Myers, *Immigrants and Boomers*, p. 8.
- ⁴² [“Attracting the Talent Canada Needs Through Immigration,”](#) *Advisory Council on Economic Growth*, Oct. 20, 2018.
- ⁴³ “A Changing Nation: Population Projections Under Alternative Immigration Scenarios,” *U.S. Census Bureau*.
- ⁴⁴ Craveiro et al., “Back to Replacement Migration.”
- ⁴⁵ [“Employment Projections: 2019-2029 Summary,”](#) *U.S. Bureau of Labor Statistics*, Sept. 1, 2020.
- ⁴⁶ Warren Sanderson and Sergei Scherbov, [“A New Perspective on Population Aging,”](#) *Demographic Research*, 16, Jan. 16, 2007, pp. 28-58.
- ⁴⁷ The base international migration level used in this calculation is 1,010,000, as projected for 2019-2020 in “A Changing Nation: Population Projections Under Alternative Immigration Scenarios,” *U.S. Census Bureau*.
- ⁴⁸ Working age and elderly populations in this table and Table 3 are rounded to the nearest million.
- ⁴⁹ Sanderson and Scherbov, 2007.
- ⁵⁰ The proposed additional immigrant population would also add approximately five million new children to the U.S. population by 2060. Despite this increase, we project that the Child Dependency Ratio — the ratio of working-age adults to children — would actually rise between 2020 and 2060, from 2.54 to 2.58.
- ⁵¹ For more on OADR, prospective age, and setting OADR-based migration levels, see Sanderson and Scherbov (2005, 2007, 2015) and Craveiro et al. (2019).
- ⁵² Mohamed Younis, [“Americans Want More, Not. Less, Immigration for the First Time,”](#) *Gallup*, July 1, 2020.
- ⁵³ Mary C. Waters and Marisa Gerstein Pineau, eds., [“The Integration of Immigrants into American Society,”](#) The National Academies of Sciences, Engineering and Medicine, 2015.
- ⁵⁴ Richard Alba and Nancy Foner, [“U.S. Can Do a Better Job of Integrating Immigrants,”](#) *San Diego Tribune*, Sept. 24, 2015.
- ⁵⁵ John Cochrane, “Peregrine: What is the Optimal Number of Immigrants to the U.S.?” *Hoover Institution*, June 24, 2014.
- ⁵⁶ Doug Holtz-Eakin and Jacqueline Varas. “Building a Pro-Growth Legal Immigration System,” *American Action Forum*, May 28, 2019.
- ⁵⁷ “EEA Migration in the UK: Final Report,” *Migration Advisory Committee*, September 2018.
- ⁵⁸ Demetrios G. Papademetriou et al. “Harnessing the Advantages of Immigration for the 21st Century,” *Migration Policy Institute*, May 2009.
- ⁵⁹ Jugal K. Patel, “Trump Wants Big Changes to Legal Immigration Too,” *New York Times*, Oct. 18, 2016.
- ⁶⁰ Daniel Griswold, “Reforming the U.S. Immigration System to Promote Growth,” *Mercatus Center at George Mason University*, 2017.
- ⁶¹ “Independent Task Force on Immigration and America’s Future,” *Migration Policy Institute*, 2006.