



The Economics of Commonsense Immigration Reform from the *Economic Report of the President 2013*

“We define ourselves as a nation of immigrants. That’s who we are—in our bones. The promise we see in those who come here from every corner of the globe, that’s always been one of our greatest strengths. It keeps our workforce young. It keeps our country on the cutting edge. And it’s helped build the greatest economic engine the world has ever known.”

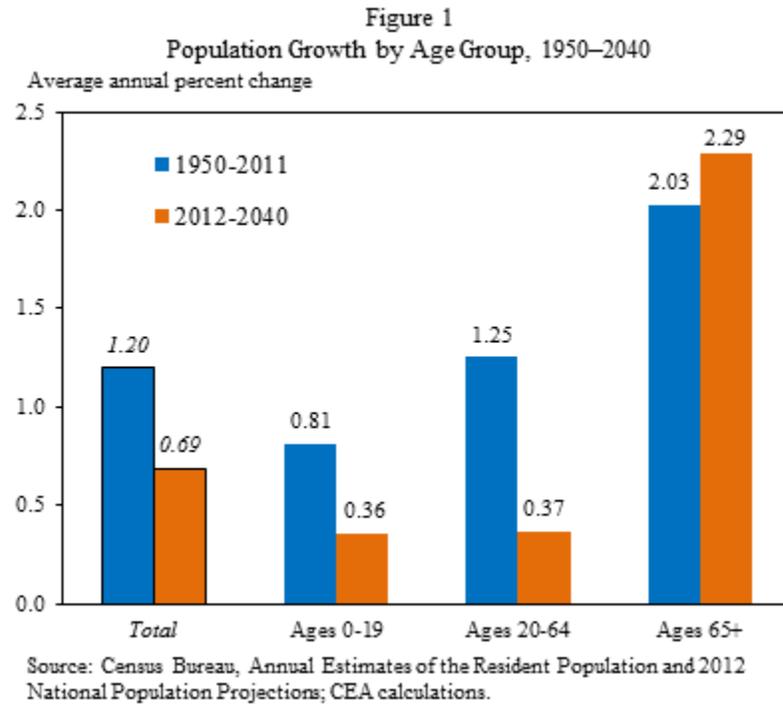
- President Barack Obama, January 29, 2013

IMMIGRATION

We are a nation of immigrants and their descendants. Now, more than ever, the economic and social benefits of immigration loom large. U.S. population growth is projected to fall almost in half over the next three decades, with the growth in the working-age population falling even further (see Figure 1). Immigrants increase the size of the population and thus of the labor force and customer base, making an important contribution to economic growth. In 2010, there were nearly 40 million foreign-born people in the United States, representing 13 percent of the population and 16 percent of the workforce.

As the United States faces the prospect of a slow-growing population, immigrants are likely to play an increasingly important role in the American economy. Immigrants work in diverse industries and occupations. While they represent 16 percent of the workforce, they account for more than 20 percent of workers in agriculture, construction, food services, and information technology. They are agricultural laborers, domestic workers, and cabdrivers as well as health care workers, computer software engineers, and medical scientists (Singer 2012). This

diversity promotes economic growth as immigrants and natives often specialize in different tasks and occupations.



In addition, many highly skilled workers in the STEM fields are immigrants, and research has shown that these workers contribute importantly to innovation and growth. Many immigrants start businesses and create jobs for American workers. The United States has a distinct advantage compared with other developed nations in that flexible labor markets and robust returns to skills encourage the in migration of these highly qualified workers. Our open society also allows immigrants to integrate better than in other countries, and we benefit from their vitality and creativity. Commonsense immigration reform can honor America’s historical legacy of welcoming those willing to work hard for a better life, while also promoting its national and economic interests.

A Brief History of U.S. Immigration Policy

International migration flows from developing to developed countries are on the rise across the world. According to the latest United Nations estimates, more than 200 million people, or 3.1 percent of the world's population, live in a country that is not their original country of birth. Table 1 shows immigrants as a share of total population in selected advanced economies. In addition to the historical immigrant-receiving countries such as Australia, Canada, New Zealand, and the United States, the European Union, Scandinavian countries, and even Russia now have substantial foreign-born populations.¹

Between 2001 and 2010, 10.5 million foreign-born individuals received legal-resident status (green cards) in the United States. While this is a large number, Figure 2 illustrates that the flow of legal immigrants is only now surpassing levels attained at the turn of the 20th century, when the population was much smaller but immigration was virtually unrestricted. The figure also shows that immigrant inflows, as a share of the total population, are far below the levels reached in the 19th century. In reaction to the large inflows in the early 1900s, particularly from Eastern and Southern Europe, Congress enacted a national quota system in 1921. The 1965 amendments to the Immigration and Nationality Act repealed the national quota system and made family reunification a priority. Under current law, immediate relatives

¹ The list does not include countries in the Middle East, such as Israel, Jordan, Kuwait, Qatar, and United Arab Emirates that have substantial guest-worker programs and foreign-born populations who generally make up 40 percent or more of the total population.

Table 1
Foreign-Born Persons in Selected Countries

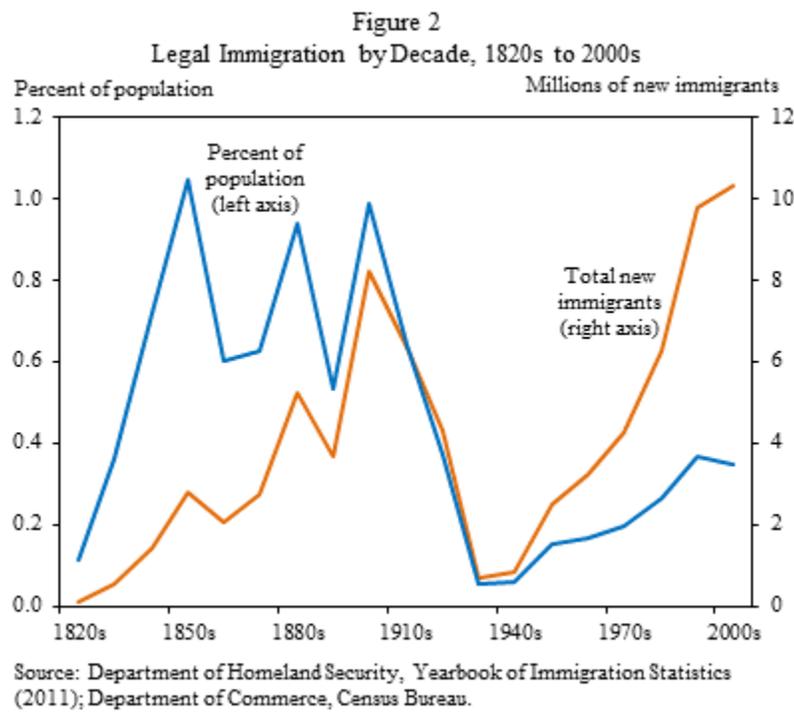
Country	Percent of Total Population	
	1990	2010
New Zealand	15.5	22.4
Australia	21.0	21.9
Canada	16.2	21.3
Spain	2.1	14.1
Sweden	9.1	14.1
United States	9.1	13.5
Germany	7.5	13.1
France	10.4	10.7
United Kingdom	6.5	10.4
Russia	7.8	8.7
Japan	0.9	1.7

Source: United Nations, Department of Economic and Social Affairs, Population Division, Trends in International Migrant Stock (2008).

of U.S. citizens—spouses, minor children, and parents—are not subject to annual numerical limits. For other family members including siblings and adult children of U.S. citizens and spouses and minor children of legal permanent residents, a numerical cap of 226,000 applies. Over the 10-year period from 2002 to 2011, an average of 469,777 immediate relatives of U.S. citizens and an average of 207,927 other family members obtained permanent residency status annually (DHS 2011). As a result of numerical limits and processing backlogs, applications in the “other family member” category have long waiting times. The longest waiting periods are for applications from countries such as China, India, Mexico, and the Philippines; under the law, no more than 7 percent of total family-sponsored visas can be allotted to any single country.

Foreign workers also come to the United States through employment-based green cards. A maximum of 140,000 employment-based slots for permanent residency are available each year, although the actual cap varies since unused visas in the family program are carried over to

the employment system. On average over 2002–11, 157,181 employment visas were issued annually (DHS 2011). Employment-based green cards typically require the worker to have at least a college degree or documented evidence of special skills; only 10,000 employment-based green cards are available to workers without formal education or skill requirements. Individuals can obtain employment-based green cards for making large direct investments in job-creating enterprises, although this category is limited to approximately 10,000 visas



Foreign-born individuals are also allowed to reside and work in the United States on a temporary basis through several temporary immigrant visa programs. For example, individuals are admitted to work in the agricultural industry (H-2A visas) and other seasonal industries (H-2B visas) for short durations on specific jobs with specific employers. These visas help alleviate peak seasonal demands in certain sectors of the economy but cannot be used to employ less-skilled workers for longer durations. H-1B visas permit temporary employment for skilled professionals who are sponsored by a U.S. employer, typically in science, computer, or

engineering occupations. A worker can remain in H-1B status for up to six years. Current law permits 65,000 new H-1B issuances a year, although up to 20,000 individuals who either hold advanced degrees from U.S. universities or are going to work for institutions of higher education or government research organizations are exempt from the cap. Applications for the H-1B visa are accepted starting in April for the following fiscal year. The application window closes when the annual cap is met. Demand for H-1B visas slowed during the recent recession but has picked up again, pointing to increasing demand for workers in the rapidly growing STEM occupations. One study published by the Department of Commerce found that employment in STEM occupations increased 7.9 percent from 2000 to 2010 while employment in non-STEM jobs grew just 2.6 percent over the same period. Moreover, STEM jobs are projected to grow by 17.0 percent from 2008 to 2018 (Langdon et al. 2011). In 2010, 151,710 foreign graduate students were enrolled in U.S. postsecondary institutions in STEM fields (NSF/NIH 2010). Allowing this population—already here and educated in the United States—to stay by increasing the number of visas available will ultimately position the Nation well in the global competition for new ideas, new businesses, and jobs of the future.

In part because of the limited pathways for less skilled workers to obtain legal status, an estimated 11.5 million foreign-born individuals in the United States are undocumented (Hoefler, Rytina, and Baker 2012). Bipartisan support for strengthened immigration enforcement has resulted in a well-resourced and modernized enforcement system. While effective, the fiscal burden of this system is also substantial. The Border Patrol has doubled in size over the past seven years to 21,370 agents in FY 2012. Spending for the two main immigration agencies—U.S. Customs and Border Protection and U.S. Immigration and Customs Enforcement—surpassed \$17.9 billion in FY 2012, an amount that is higher than all other spending on criminal

Federal law enforcement agencies (Meissner et al. 2013). Workplace enforcement, which could alleviate some of the fiscal burdens of border enforcement, has not kept pace. Effective workplace enforcement would entail enabling employers to quickly and accurately verify employees' eligibility by using an electronic employment verification system (E-Verify), and also holding those employers accountable who deliberately break the law by hiring unauthorized workers or violating labor laws.

The Department of Homeland Security estimates that of the 11.5 million unauthorized immigrant population residing in the United States in 2011, approximately 1.3 million were under 18 years of age (Hofer, Rytina, and Baker 2012). Undocumented young people who were brought to the country as children have no clear path to future legal status that would enable them to further their education and find gainful employment outside of the shadow economy. Various versions of legislation to address the undocumented student population, often referred to as the DREAM Act, have been introduced in recent congressional sessions. The latest effort in 2010 passed the House but failed to pass the Senate. In June 2012, the Secretary of Homeland Security announced and implemented a new process, known as "Deferred Action for Childhood Arrivals," which provides work-status eligibility and relief from deportation for unauthorized immigrants who are no more than 30 years old and who arrived in the United States before age 16. While a smaller number are currently eligible to petition, up to 1.7 million young people could potentially benefit from this program once they reach the requisite age (Passel and Lopez 2012).

Foreign-born workers in the United States tend to be concentrated at both the low and the high end of the educational spectrum. Table 2 shows that 29.1 percent of the foreign-born have less than a high school degree. On the other hand, 10.9 percent have a master's degree or higher,

a share on a par with that of the native-born. The table also shows that the foreign-born are more likely to be of working age, with 67.2 percent of the foreign-born aged 25–54 years old compared with 55.9 percent of the native population. The table also shows that foreign-born men are much more likely to be employed than native-born men.

Table 2
Distribution of Education, Age, and Employment
For Natives and Foreign Born Individuals, 2010–2012

	Native	Foreign Born
<u>Education Attainment (Age 25+)</u>		
Less than high school	9.3	29.1
High school, no college	31.7	26.0
Some college or associates	28.2	16.2
Bachelor's	19.9	17.8
Master's or higher	10.9	10.9
<u>Age Group</u>		
16-19	0.6	0.3
19-24	6.9	5.0
25-54	55.9	67.2
55-64	17.5	13.6
65+	19.1	13.9
<u>Work Status</u>		
Employed	60.3	62.4
Men	64.7	73.8
Women	56.2	51.2

Note: Sample limited to individuals 16 and over who are not enrolled in school.

Source: Bureau of Labor Statistics, Current Population Survey, Annual Social and Economic Supplement; CEA calculations.

Other countries that receive large numbers of immigrants, such as Australia and Canada, admit a majority of their immigrants based on employment skills. Australian work visas are most commonly granted to highly skilled workers. Candidates are assessed against a system that grants points for certain standards of education. In Canada, almost two-thirds of visas are issued to economic immigrants, primarily skilled workers and their dependents. Skilled workers are selected on factors such as education, English or French language abilities, and work experience. In contrast, the United States has a more “outcome”-based approach to granting visas. For

example, employment visas are awarded to persons with extraordinary ability (EB-1), outstanding professors and researchers (EB-2), and skilled and unskilled workers with job offers from a U.S. employer (EB-3). While some may argue that Canada and Australia might do a better job of attracting skilled immigrants than the United States because of their point-based systems, a recent study using detailed data compares the United States with Australia and finds that, by and large, the two countries attract similar immigrants. Skill premiums and geographic proximity, rather than the specific details of the admission criteria, play the predominant role in determining the quality of employment-based immigrants (Jasso and Rosenzweig 2008).

Since enactment of the Immigration and Nationality Act of 1965, family reunification has been a cornerstone of U.S. immigration policy. Debate continues on whether the United States should maintain this family-based system or move more toward an occupation- and skills-based system. While the question is often posed as a stark choice between two systems, in reality the two visa categories—family and employment—complement each other in important ways. In choosing a country to move to, skilled prospective immigrants envision a better life not only for themselves but for their families. Using data arranged by year of arrival and country of origin, one study found a positive correlation between the fraction of immigrants arriving on sibling preference and mean education levels of the immigrants. The data seem to support the notion that highly educated immigrants who arrive based on employment and occupational preference categories then sponsor their siblings who are also highly educated (Duleep and Regets 1996). As proposals are made to increase skill-based immigration, it is important to keep in mind that a welcoming policy toward the family is an important factor in attracting skilled workers to live and invest in the United States.

The Economic Benefits of Immigration

Conventional theory suggests that the destination country as a whole gains from immigration, though these gains may be uneven across groups. Immigrants add to the labor force and increase the economy's total output. The gains accrue to natives whose productivity is enhanced by immigrant workers—often referred to as complementary factors—as well as to capital owners. A major study published by the National Research Council in 1997 estimated the size of the “immigrant surplus” to be on the order of \$14 billion in 1996 dollars, or 0.2 percent of GDP. Given the size of today's economy, this translates into \$31.4 billion in 2012 dollars, even without accounting for growth in the share of the population that is foreign born.

There are additional reasons to think the above calculations may understate the full economic benefit of immigration. For one, the calculations do not take into account the fact that capital owners may boost investment in response to the increased number of workers, which may induce further economic growth. For another, the simple approach assumes a negative impact on the average wages of native workers that has been difficult to establish empirically. The same National Research Council study concluded that the body of empirical evidence pointed to a very small negative impact from immigration on wages of competing native workers—on the order of 1–2 percent and often statistically insignificant.² In fact, to the extent that new immigrants crowd out existing workers, research shows that those most adversely affected are recent immigrants (Lalonde and Topel 1991; Ottaviano and Peri 2012). A new immigrant with limited English skills, for example, will likely compete closely with other recent immigrants with poor English ability in jobs that do not require institutional, technical, or advanced language skills, thereby lowering the recent immigrants' wages.

² NRC (1997), chapter 5. Also see Card (1990), Friedberg and Hunt (1995), Card (2009), Cortes (2008). See Borjas (2003) and Borjas, Grogger, and Hanson (2011) for the opposing view.

Recent studies suggest, in fact, that the skills and talents that immigrants and natives bring to the labor market may not be substitutes for each other. Low-skilled immigrants may enhance the productivity of high-skilled natives. Even within skill groups, the various talents that immigrants and native workers bring to the labor market may complement each other rather than compete. The intuition behind the gains to both natives and immigrants in this case would follow from the principle of comparative advantage. For example, an immigrant worker may be an extraordinary computer programmer but have limited English skills. Rather than filling the programming job with a native worker who is not as skilled in this particular task, the employer might assign the native worker to tasks that use communication and English language skills. Some of these ideas are pursued in recent work by Giovanni Peri and co-authors (Peri and Sparber 2009; Ottaviano and Peri 2012). Other research also by Giovanni Peri compares states with differing levels of immigration and finds that immigration raises productivity by promoting efficient task specialization (Peri 2012).

Another question regards the impact of immigration on the public finances of the host country. Immigrants contribute positively to government finances by paying taxes but add to costs by using publicly provided goods and services such as roads, police, and schools. The 1997 National Research Council study estimated that, over the long run, a typical immigrant and his or her descendants would contribute about \$80,000 more in taxes (in 1996 dollars) than they would receive in terms of public goods and services. This would translate into nearly \$120,000 in 2012 dollars. This positive fiscal impact is attributable to several factors: most immigrants arrive at young ages; their descendants are expected to have higher incomes; immigrants help to pay for public goods such as national defense that do not entail congestion costs; and the 1996 Personal

Responsibility and Work Opportunity Reconciliation Act prohibited new immigrants from receiving public benefits for five years after arrival.

A recent Congressional Budget Office study also found that allowing undocumented immigrants a pathway to citizenship is likely to help the Federal budget. The study estimates that, had a pathway been established, Federal revenues would have increased by \$48.3 billion while Federal outlays would have increased by \$22.7 billion over the 2008–12 period, leading to a surplus of \$25.6 billion. The revenue increase stems largely from greater receipts of Social Security payroll taxes, while the increase in outlays would be in the form of refundable income tax credits and Medicaid. This calculation does not take into account possible increases in Federal discretionary spending. There may be also additional expenditures at the State and local level on education and healthcare, which are harder to forecast (CBO 2007).

Another important economic benefit of providing a pathway to earned citizenship is that, by bringing immigrant workers out of the shadows, they will be able to obtain above-ground jobs, advance in their careers, and contribute more fully to the economy. Moreover, with a pathway to earned citizenship, immigrant workers and their employers will invest more in their skills, raising the benefit to the economy even further. Legalizing this population will also benefit U.S.-born citizens as they need no longer compete with workers who may work at below market wages due to their unauthorized status.

A Magnet for High-Skilled Immigration

A growing area of study is how high-skilled immigrants—particularly those in the STEM fields—contribute to innovation and growth. Based on the 2010 National Survey of College Graduates conducted by the National Science Foundation, immigrants represent 13.6 percent of all employed college graduates, but they account for 50 percent of PhDs working in math and

computer science occupations, and 57.3 percent of PhDs in engineering occupations (Table 3). About two-thirds of these foreign-born PhDs hold U.S. degrees, suggesting that many of them either immigrated as children or came to attend U.S. universities and stayed.

Interestingly, one study found that 26 percent of all U.S.-based Nobel laureates over the past 50 years were foreign born. The same study also found that in the EU-12 countries, immigrants made up slightly less than 5 percent of total population and accounted for about 4 percent of those holding masters' and PhDs, in contrast to the United States (Wasmer et al. 2007).³

Table 3
Percentage of Foreign-Born College Graduates
by Degree and Occupation, 2010

	All	Bachelor's	Master's	Professional	Doctorate
Total	13.6	11.8	15.3	12.9	32.2
All sciences	28.6	20.3	38.1	50.7	44.2
Math/computer sciences	29.2	21.8	42.4	30.5	50.0
Life and related sciences	28.8	14.5	27.3	59.4	44.2
Physical and related sciences	23.9	12.2	21.3	49.6	38.8
Engineering	24.1	16.2	33.3	44.4	57.3

Note: Occupation refers to occupation for principal job. Sample limited to employed individuals.

Source: National Science Foundation/National Center for Science and Engineering Statistics, National Survey of College Graduates (2010).

These statistics support the view that the United States continues to be a magnet for highly skilled immigrants. Two factors likely play a role. First, the United States has flexible labor markets that are able to integrate immigrants relatively quickly. Second, the skill premium is high in the United States, and individuals with exceptional ability and willingness to work hard can thrive. These factors have enabled the Nation to benefit from large inflows of highly skilled workers.

³ According to the study, the data for Nobel Laureates were found at the official website of the Nobel Foundation: <http://nobelprize.org/nobel/>.

Boosting Innovation and Entrepreneurship

In addition to the benefits already covered, recent studies have shown that immigrants promote productivity and innovation, directly and also indirectly through positive spillover effects on native researchers and scientists. Gauthier-Loiselle and Hunt (2010) found that immigrants patent at two to three times the rate of U.S.-born citizens. The study also found that immigrants further boost innovation in the economy by having positive spillovers on the native rate of innovation. Another study found that raising the number of skilled information-technology workers—as has been done by raising the cap on H-1B visas—spurs innovative activity in states that more heavily employ these workers (Kerr and Lincoln 2009).

Studies also have found that immigrants are not only exceptional workers and innovators but also highly entrepreneurial. One study found that 25 percent of venture capital companies between 1991 and 2006 were started by immigrants (Anderson and Platzer 2006). Another found that immigrants started 25 percent of engineering and technology companies founded between 1995 and 2005 (Wadhwa et al. 2007). Even outside the high-tech sector, one study found that immigrants are more likely than natives to start a company with more than 10 workers (Fairlie 2012). Immigrants are 30 percent more likely to form new businesses than U.S.-born citizens. A study by Partnership for a New American Economy found that more than 40 percent of Fortune 500 companies were founded by immigrants or their children. The study also found that these companies are responsible for many jobs here and abroad—employing more than 10 million people worldwide—and that they generate annual revenues of \$4.2 trillion.

While there is clearly room for further study, these studies generally provide little systematic evidence that increases in the supply of foreign scientists and engineers discourage natives from entering these fields or from engaging in innovative activity. For example, Gauthier-Loiselle and Hunt found that the inflow of high-skilled immigrant science and

engineering workers into a state did not decrease the number of patents originated by native science and engineering workers in the state. Borjas (2007) also found that, on the whole, rising enrollment of foreign graduate students did not discourage native enrollment in science and engineering programs, although there were some disparate impacts across groups.

President Obama has supported a recent initiative to graduate 1 million more college graduates with STEM degrees. At the same time, all evidence points to the fact the United States is extraordinarily successful at attracting highly skilled workers from other countries. Sensible immigration policy would entail taking advantage of this unique situation and allowing more high-skilled immigration. The lack of clear evidence of crowding out bolsters confidence that these are not two conflicting policy goals.

Conclusion

With slowing population growth and aging of the workforce, America needs more workers. The Nation also needs to invest in the education, skills, and training of its citizens so they can fill the jobs of the future. Over the past four years, President Obama has taken an aggressive stance toward combating the rising cost of college. The expansion of the Federal Pell Grant program and the American Opportunity Tax Credit has made college more affordable for millions of students and families. Challenges still remain, including the continuing rise of tuition and levels of student debt. In his recent State of the Union address, President Obama called upon colleges to join in the effort to keep costs down. He proposed using metrics such as value, affordability, and student outcomes in distributing Federal campus-based aid. He also announced a new Race to the Top program for College Affordability and Completion, which will reward states who are willing to change their higher education policies and practices to contain tuition costs and ease students' progress toward a college degree.

With the potential to address both the need for workers and the need for skills, the gains from commonsense immigration reform loom large. Immigration can boost the economy by adding workers and making our labor force younger and more dynamic. Offering a path to citizenship to more than 11 million currently undocumented residents will further expand the economy as this group invests in education, finds gainful employment, and pays taxes. Border enforcement has proven to be effective, but it is a drain on our public finances. Smart enforcement that balances border security with crackdowns on worksite fraud will not only have higher returns going forward, but it will also save taxpayers money. America has historically been a magnet for capable and hard-working immigrants who seek opportunities and a better life. Many of these immigrants are innovators and entrepreneurs. The smart policy ahead is to leverage America's unique advantage for future prosperity and growth.

Smart policy also involves making sure that all Americans benefit from economic growth. In his 2013 State of the Union address, President Obama reiterated his commitment that an honest day's work is rewarded with decent pay, enough to feel secure and support a family. A Federal minimum wage that keeps up with the cost of living, policies that strengthen workers' ability to bargain for decent wages and safe working conditions, and tax policies such as refundable credits that allow lower-income families to invest in their children's education, are important pieces of the foundation upon which an economy that works for the middle class is built.