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Economic Research:

Adding Skilled Labor To America's Melting Pot Would Heat Up U.S. Economic Growth

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As the drive for U.S. immigration reform becomes more bogged down in election-year politics, one facet of the issue seems indisputable: An overhaul of the country's immigration policy would be a boon to the world's biggest economy.

Standard & Poor's projects that a sweeping reform that would further open U.S. borders to a significant number of highly skilled noncitizens who could lawfully enter the country permanently or temporarily would be a positive step toward growth. If such immigration reform becomes law, we expect that it could add about 3.2 percentage points to real GDP in the next 10 years (2015 to 2024). It would likely add even more to growth in the following decade--a meaningful bump for an economy continuing to recover from the Great Recession. This would also help reduce Uncle Sam's growing budget problems, likely cutting about \$150 billion in real terms from our deficit in 10 years and likely even more the next.

Key Highlights

- Employment-based immigration reform could add about 3.2 percentage points to real GDP in the next 10 years.
- High-skilled immigrant workers spend and invest, supporting businesses and the economy. Generally, highly skilled workers earn much more than average U.S. wages, with those in the STEM fields earning almost twice the average. The top 20% of high earners account for 38% of all spending.
- Immigrant labor largely complements--not substitutes--the U.S.-born workforce. Concerns that immigrants will "take our jobs" are misplaced.
- Highly skilled immigrants help create jobs. They increase innovation and productivity and are more likely to start a new business than U.S.-born workers. Startup businesses are the true engine of job creation in the U.S. economy.
- Employment-based reform would provide a short-term solution to the current "skills gap" businesses face, giving long-term solutions like school-business partnerships--which produce graduates with skills that meet business needs, getting graduates hired at a faster pace--a chance to work.

A stronger, younger workforce

Both the House and Senate have indicated they support the need to move toward an employment-based approach to immigration policy (offering visas based on work-related reasons). This kind of reform marks a shift from an immigration policy based on a family approach (offering visas based on family-related reasons). Reform of this nature would raise the number of employment-based immigration (EB visas) sharply while slowing family-based immigration (F visas), lowering caps for some categories and eliminating others.

Over time, immigration reform would likely significantly increase the number of working-age people in the U.S. An influx of young, skilled labor would spur economic growth, reduce the federal deficit, potentially add to innovation, and

help offset the deleterious effects of an aging American population, among other things, according to our research. In addition, if reform focused on highly skilled immigrants, the ripple effects on productivity, the tax base, and jobs would be even larger.

In short, and with apologies to author Emma Lazarus, perhaps the poem on the Statue of Liberty should read: Give me your tired, your poor, your highly skilled huddled masses yearning to breathe free--and make it quick, our economy needs it!

Misplaced concerns

While many see immigration reform as a boost for the economic recovery, others are sure that immigrants steal our jobs, depress our wages, and slow economic growth. The U.S. recently suffered its worst recession since the Great Depression, and the recovery--the slowest in 50 years--hasn't been much better. Even now, the unemployment rate, at 6.7%, remains well above precrisis levels, and wages are still low. With the labor market participation rate at a 35-year low (it's even worse for the younger generation, ages 20 to 25), that headline unemployment rate masks how soft the jobs market is.

We believe some of these concerns are misplaced.

The worry that immigrants are taking American jobs assumes that they only affect the supply of labor. But new workers, whether they are new immigrants entering the U.S. or new graduates, also affect demand. Immigrants consume goods and services leading to more revenue, more jobs, and more growth. The immigrants that come to the U.S. typically complement the native labor force; they don't substitute for American workers. The two groups will overlap somewhat, in terms of demographic and socioeconomic features, but immigrants often fit into the labor force in areas and occupations where there are insufficient numbers of comparable native workers, both for high- and low-skilled occupations. In other words, more people entering the jobs market doesn't mean lower wages and a higher unemployment rate, it means a bigger economy.

In addition, immigrants also are particularly innovative. According to figures from The Partnership for a New American Economy's June 2012 study, 75% of the nearly 1,500 patents awarded at the nation's top 100 research universities went to projects at least partly headed by immigrants. Nearly all of those patents were in the STEM fields (science, technology, engineering, and mathematics). Specifically, immigrants contributed to 87% of the patents in semiconductor device manufacturing, 84% in information technology, 83% in pulse or digital communications, and 79% in pharmaceutical drugs or drug compounds. Foreign nationals contributed to 25.6% of U.S. international patent applications in 2006, more than three times the pace in 1998 (Kauffman Foundation, Duke University, New York University, Harvard Law School 2007 study). They are more than three times more likely to file a patent than U.S.-born citizens (Hunt and Gauthier-Loiselle, 2003).

Immigrants are also highly entrepreneurial. They are 30% more likely to start a new business than U.S.-born citizens (The Hamilton Project, "Ten Economic Facts About Immigration"). Intel, Google, Yahoo, eBay, Skype, Tesla, PayPal, and YouTube were all started by immigrants. Of the engineering and technology companies founded in the U.S. between 2006 and 2012, 24.3% had at least one key founder who was an immigrant (Kauffman, Duke University, Berkeley School of Information, Stanford University 2012 study). These companies hired about 560,000 workers and

generated \$63 billion in sales in 2012. That means wealth to our economy and more money in peoples' pocketbooks. More broadly speaking, 18% of the Fortune 500 companies had at least one founder who was foreign-born. These companies generated \$1.7 trillion in annual revenue and employed 3.6 million workers worldwide (Immigration Law Policy Center).

Immigration reform doesn't mean native-born Americans have to lose--rather, it could help make everyone's piece of the economic pie bigger. There is a leverage effect that is often overlooked. Because immigrants have created businesses and file patents at an especially high rate, a focus on skilled talent would ultimately create more jobs for both U.S. citizens and immigrants alike. According to the American Enterprise Institute, immigrants--whether temporary or permanent, high-skill or low-skill--boost employment among Americans. According to the study, from 2000-2007, each additional group of 100 foreign-born workers with an advanced degree was associated with 44 additional American jobs, and those foreign-born workers with STEM backgrounds were associated with 262 additional American jobs.

The Myth Of Job Scarcity

Much of the resistance to immigration reform revolves around the idea that adding to the workforce would exacerbate unemployment (especially among natural-born Americans) and drive down wages for those who are lucky enough to still have a job.

One worry: I'll make less money

The driving theme of this myth is that more competition means lower wages. Indeed, adding more workers to the labor force, on its own, would likely lower wages and add to the unemployment rate. However, this ignores the fact that new workers don't only affect supply, but also demand. Whether they are new immigrants or recent college graduates, new workers will need to buy food, some mode of transportation to get them to work, and other consumable goods and services. In short: They need to buy stuff, which creates more jobs. Demand for housing will also likely increase dramatically as these new immigrants enter the economy and form households. They would also need to buy furnishings, meaning more money spent, more jobs, and more tax revenue. Once businesses expand to absorb the larger work force to meet the increased demand from a larger population, these short-term imbalances to the labor market early on will give way to increased productivity and higher wages later.

Taking it one step further, high-skilled workers make significantly more than low-skilled and average workers. For example, the \$77,800 average wage for workers in all STEM fields is almost twice that of all occupations and almost four times the average wage of low-skilled workers. (Managers in engineering and the natural sciences make three times as much as the average worker.) Because the top 20% of earners account for 38% of all spending in the U.S., employment-based immigration reform focuses on high-skilled workers, suggesting more revenues for both businesses and Uncle Sam.

Another worry: Immigrants will take my job and my opportunities

Research and data suggest the opposite is true.

Economic theory has straightforward and intuitive implications about what we should expect: If two types of workers

are perfect substitutes, then increasing the supply of one reduces the relative wages of the other, all else being equal; if, instead, two types of workers are complementary, then increasing the supply of one will increase the relative wages of the other. Thus, immigration would lower the wages of competing workers and increase the wages of complementary workers, at least in the short run.

For example, an influx of low-skill laborers reduces the economic opportunities for low-skill natives and residents--that is, all laborers now face stiffer competition. At the same time, high-skill natives may gain, because they would pay less for the services that laborers provide, and those who hire these laborers can now specialize in producing the goods and services that better suit their skills--thus increasing their own productivity. Over time, as the economy adjusts to the influx, these effects would likely attenuate. In our analysis, immigration reform initially pushed the unemployment rate a bit higher, compared with if no reform took place. But within a few years, once the economy absorbed the new labor, the unemployment rate came back down in line with the unemployment rate in the base case.

At any rate, prevailing wisdom suggests that immigrants and native-born workers are generally complementary, rather than perfect substitutes. Lower-skill immigrants largely sort into farming and other manual, low-paying jobs that residents don't want, and higher-skilled immigrants provide labor at high-tech companies who cannot find enough trained American-born workers. Meanwhile, as we mention above, many highly skilled workers in the STEM fields are immigrants, and research has shown that these workers contribute significantly to innovation and growth. As a result, immigration creates job opportunities for the native-born, with some particularly high-profile examples found in Silicon Valley.

There will always be some overlap between natives and immigrants, in terms of their demographic and socioeconomic characteristics. But immigrants often fit into the labor force in areas and occupations where there are insufficient numbers of comparable native workers.

It is important to clarify that removing immigrants from the workforce wouldn't automatically lead to job openings for natives, as this belief is one of the major roadblocks in the way of immigration reform. It assumes that all workers are the same and that workers are easily substitutable without regard to their location, occupation, age, or experience. These different characteristics mean that the two populations are not simple substitutes for one another. Or to quote the Immigration Policy Center, "asking unemployed autoworkers to move to California to pick tomatoes may be a short-term solution for some desperate workers, but it is not a strategy for economic recovery."

Unfortunately, the odds that Congress will pass an immigration bill before the 2014 midterm elections decrease by the day. There is very little time on the Congressional calendar for meaningful legislative activity in 2014. This year also happens to be a midterm election year in which control of the Senate hangs in the balance. Immigration is politically sensitive for both parties, which are in a political battle for the Hispanic vote. It is unlikely that there will be a political appetite in an election year for tackling immigration reform. A more effective immigration policy is in our grasp, but the road is filled with potholes.

On Balance, A Win For The U.S. Economy

The debate over what type of immigration reform would best fit the U.S. economic interests and security concerns has heated up in recent years. While security issues have dominated the debate post 9/11, the impact of immigration reform on the economy and government budgets has gained interest. We think it's just in time.

In our view, recent immigration reform proposals that both the Senate (S.744) and the House (Standards and H.R. 2131) have discussed would increase the size of the labor force and employment dramatically. These immigration reforms would loosen or eliminate annual limits on a number of permanent and temporary immigration categories with a focus on matching immigration policy to our country's economic needs.

House Republicans Darrell Issa (R-Calif.) and Bob Goodlatte (R-Va.) have pushed for legislation that would allocate work visas based on demand from employers, with a particular emphasis on STEM fields, rather than applicants' familial connections or via a lottery. At the same time, the so-called Gang of Eight, senators Michael Bennet (D-Colo.), Richard Durbin (D-Ill.), Jeff Flake (R-Ariz.), Lindsey Graham (R-S.C.), John McCain (R-Ariz.), Robert Menendez (D-N.J.), Marco Rubio (R-Fla.), and Charles Schumer (D-N.Y.), have called for an increase in the number of visas for highly skilled workers (known as H-1Bs) to 300,000 a year, from the current 65,000--the Senate bill ultimately proposes doubling the allotment to 110,000, with room to expand to 180,000 in coming years. But to assuage critics who believe that an increase in employment-based visas would take jobs away from American citizens, the bill includes provisions that would limit the number of foreigners a company can hire, requires businesses to first post job openings within the U.S., and forces employers to pay higher wages to H-1B holders.

We need to acknowledge that there may be some short-term downsides to immigration reform. It will likely result in some temporary imbalances in the skills and occupations that affect supply and demand in the labor market. In particular, the increase in the demand for labor generally lags demand for goods and services. If capital available to workers didn't swell at the same pace, there would be a decrease the marginal product of labor and, thus, lower wages on average. As a result, the unemployment rate will likely drift slightly higher and average wages lower for a few years following immigration reform implementation than would have been the case if there were no changes. In our analysis, average wages will be slightly lower through 2024 than with no immigration reform, in part because new immigrants earn lower wages than current residents on average. But as businesses expand to absorb the larger force and efficiently meet increased demand from a larger population, we'd expect to see a larger economy, with increased productivity and higher wages later. According to the Congressional Budget Office (CBO), wage gains over 2024-2033 would be 0.5% higher than with no reform and would be higher across all skill groups.

A younger workforce makes for more tax revenue

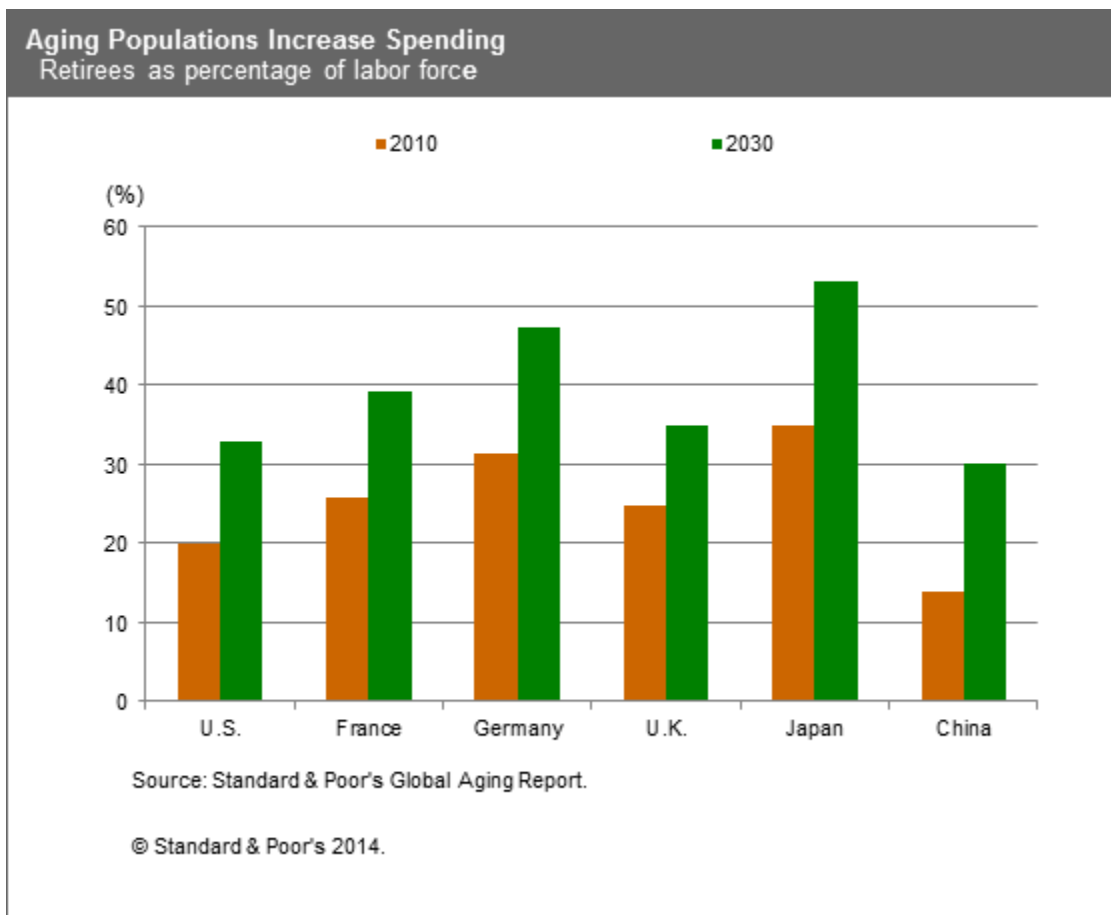
As an added benefit, the U.S. population would be younger on average. Immigration reform would add an estimated 13.7 million people to the country by 2033--just 6% of them age 65 or older, according to the Bipartisan Policy Center (BPC). By comparison, the Census Bureau projects that 20% of U.S. residents will be 65 or older in 2030 (see BPC report "Immigration Reform: Implications for Growth, Budgets, and Housing," October 2013). This is especially important in light of the strain that medical costs place on the public finances with an aging population (Standard & Poor's Global Aging Report, "Rising To The Challenge," published on RatingsDirect on March 20, 2013). Meanwhile,

local economies would benefit as businesses cater to new residents by opening stores, restaurants, and the like to take advantage of the added supply of workers.

Further, a younger workforce also makes for more tax revenue. We expect Uncle Sam to reap the rewards from immigration reform boosting GDP growth. As immigration reform would boost GDP growth by an additional 3.2 percentage points in the first decade, and likely even more in the next, tax revenues would also increase. At the same time, the cumulative federal deficit would shrink by about \$150 billion in real terms over the 10-year period and likely even more in the second decade.

This can help us manage the U.S. government's growing costs for retirement programs as the Baby Boomers retire. In 2010, retirees (65 years and older) were about 20% of the people of working age. In other words, we had five workers to pay for the retirement benefits of one retiree. But as the Baby Boomers grow older, retirees will be one-third of the workforce, which leaves only three workers to pay for the benefits of one retiree. The CBO expects federal government debt to triple to about 170% of GDP by 2030 if nothing is done to contain costs. It was 71% of GDP in 2010. While there is no simple solution for Uncle Sam's spending issues on the horizon, opening the borders to workers whose taxes will help cover these costs helps soften the blow.

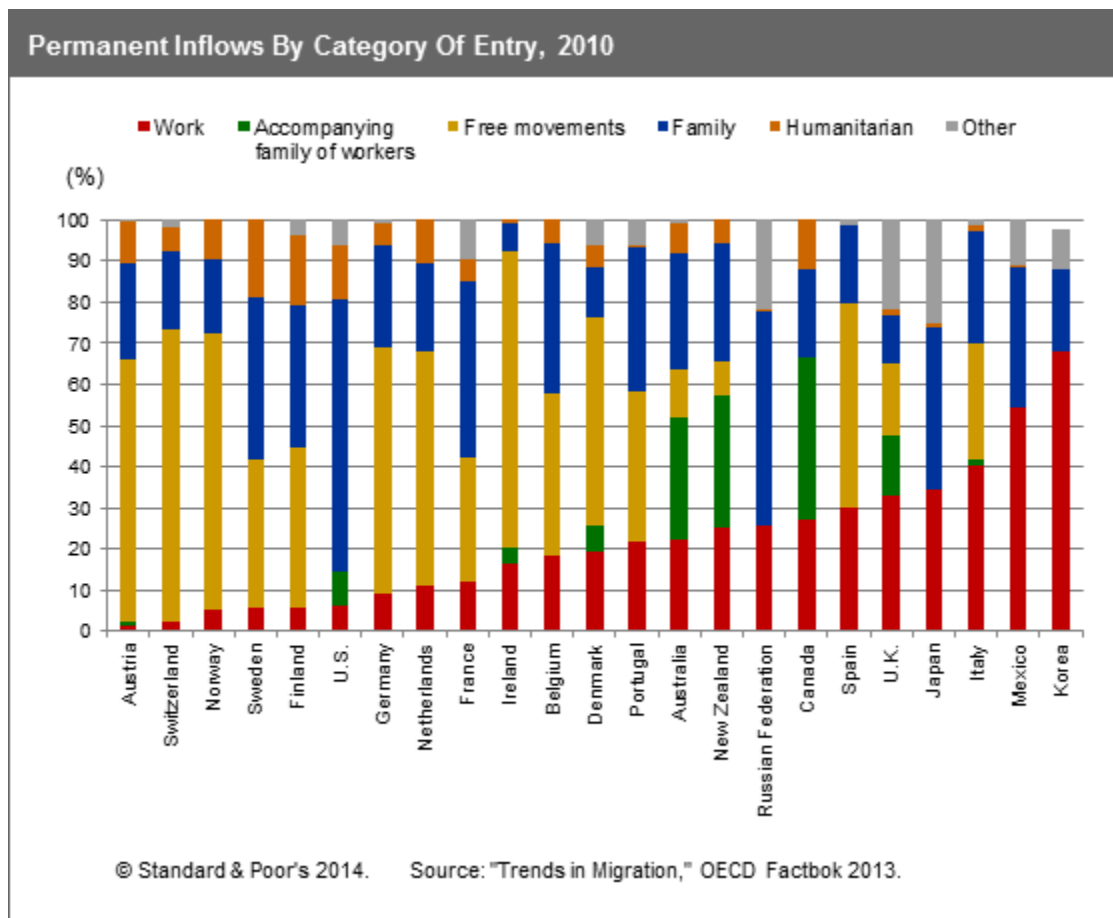
Chart 1



Moving To An Employment-based Approach Has Multiple Benefits

We believe moving immigration policy toward an employment-based approach would be good news for the economy. With 66% of permanent inflows in 2010 family-based, according to the Organisation for Economic Co-operation and Development (OECD), U.S. immigration policy is now more family-based than any other advanced country.

Chart 2



Of the 23 countries the OECD analyzed, France had the second-most family-based inflows at 42.9%. Only 14.2% of inflows into the U.S. were for work or related reasons. That's one-fifth the amount of inflows into South Korea, which has the highest level of inflows for work. Korea's real GDP growth was 6.3% compared with a 2.5% pace in the U.S. The 10 countries with the largest amount of immigration inflows for work saw an average real GDP growth of 3.1% in 2010. It is likely that they are benefiting from the skilled workers we turn away. If the Senate bill, or an equivalent, passed, it could help move toward an employment-skills approach, but it may still not be enough to change the tide.

An employment-based policy can mean increased productivity and innovation

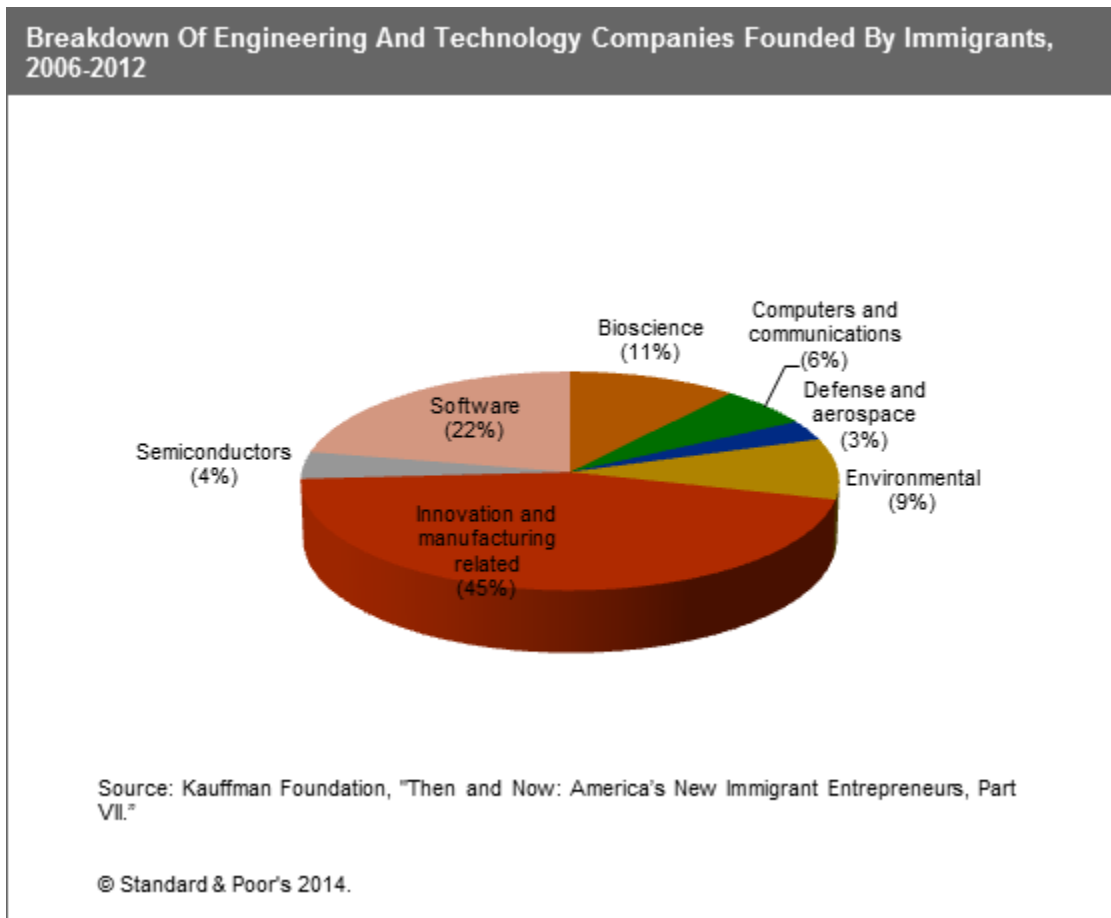
Our analysis measures the impact that loosening the annual limits on permanent and temporary immigration categories would have on the economy. In particular, we focus on the economic impact of increasing the number of highly skilled immigrants allowed to cross our borders and stay in the U.S. over the next 10 years.

The House immigration reform principles stated "visa and green card allocations need to reflect the needs of employers and the desire for these exceptional individuals to help grow our economy," and the bipartisan Senate bill gave more detail on these changes. Based on that, we expect the U.S. population would increase by about 9 million people by 2024. The labor force would add about 5 million workers by 2024. An uptick in the population rate has a positive impact on the economy. The additional population would add to demand for goods and services, which, in turn, would increase the demand for labor. Immigration reform would add an additional 3.2 percentage points to real GDP growth in the first decade--or an average additional annual growth of 0.3%.

At the same time, passage of employment-based immigration reform would lead to higher productivity of both labor and capital because the influx of workers--particularly those highly skilled--could make for additional technological advancements, such as new inventions and improvements in production processes. Ultimately, immigration reform that appropriately and safely opens our borders to more high- and low-skilled immigrants mean more jobs for Americans.

Unfortunately, the data also show that the rate of immigrant entrepreneurship has plateaued recently. The proportion of immigrant-founded engineering and technology companies nationwide has fallen to 24.3% from 25.3% since 2005. In Silicon Valley, this number also decelerated to 43.9% from 52.4% since 2005 (Kauffman Foundation, Duke University, U.S. Berkeley, Stanford University, 2012). With the proportion of immigrant founders in key industries declining since 2005, what does this mean for the U.S.' future ability to remain economically competitive in the international market?

Chart 3



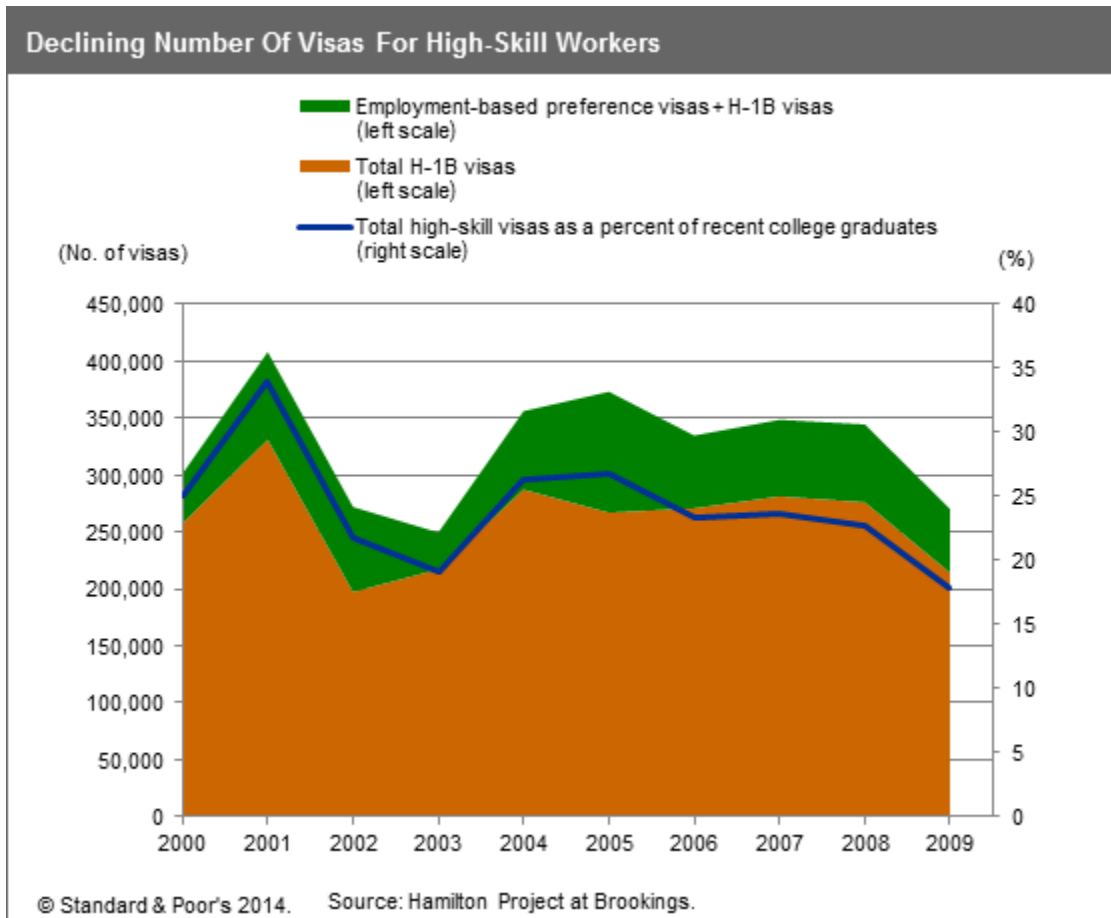
If this is the land of opportunity, why do they leave?

Some have said that after waiting for a visa that seems to never arrive, immigrants are giving up and moving to countries that will have them. In 2009, 270,326 visas for high-skilled workers were available, down 10.3% from 301,328 in 2000 (Hamilton Project at Brookings). With the backlog of immigrants in the U.S. growing by the day, the wait times for permanent residence visa can last years. Another reason includes the lack of access to capital, which any brilliant idea needs to turn into reality. It's never easy for a small business to obtain funds, and the Great Recession made it that much harder, with the Thomson Reuters/PayNet Small Business Lending Index still below the January 2007 precrisis high. And last but not least, regulatory burdens and uncertainty out of Washington can encourage would-be entrepreneurs to take their ideas elsewhere. As Jerry Ross, executive director of the National Entrepreneurial Center in Orlando, Fla., put so well, "It usually takes twice as long to deal with the Small Business Association and costs twice as much, if they consider funding the company at all" (Dearie-Geduldig, "Where the Jobs Are: Entrepreneurship and the Soul of the American Economy," 2013).

So this innovative talent that we taught in our schools is sent away to another country's gain. Ironically, these potential economic gains are large enough that other countries are trying to lure talented immigrants from the house that Uncle Sam built, with billboards on highways heading to Silicon Valley promising new start-up visas and low taxes. One billboard with a giant red maple leaf asks: "H-1B problems? PIVOT to CANADA." (Remember to bring your parka if

you go).

Chart 4



Meanwhile, there is ample evidence that many businesses in the STEM fields are actually suffering a dearth of qualified applicants. There's no shortage of entrepreneurs bemoaning the fact that U.S. colleges and universities aren't graduating enough prospective employees in these fields to meet rising demand--and such businesses have, at best, a difficult time getting visas for qualified workers from overseas.

The skills gap is real

Immigration reform is not the only challenge facing the American labor force. The U.S. economy now faces a skills gap, where businesses complain that job candidates don't have the skills to fill their needs, weighing on U.S. growth. If nothing is done to address this gap, businesses may decide to settle where the talent lives, dragging down growth in the future.

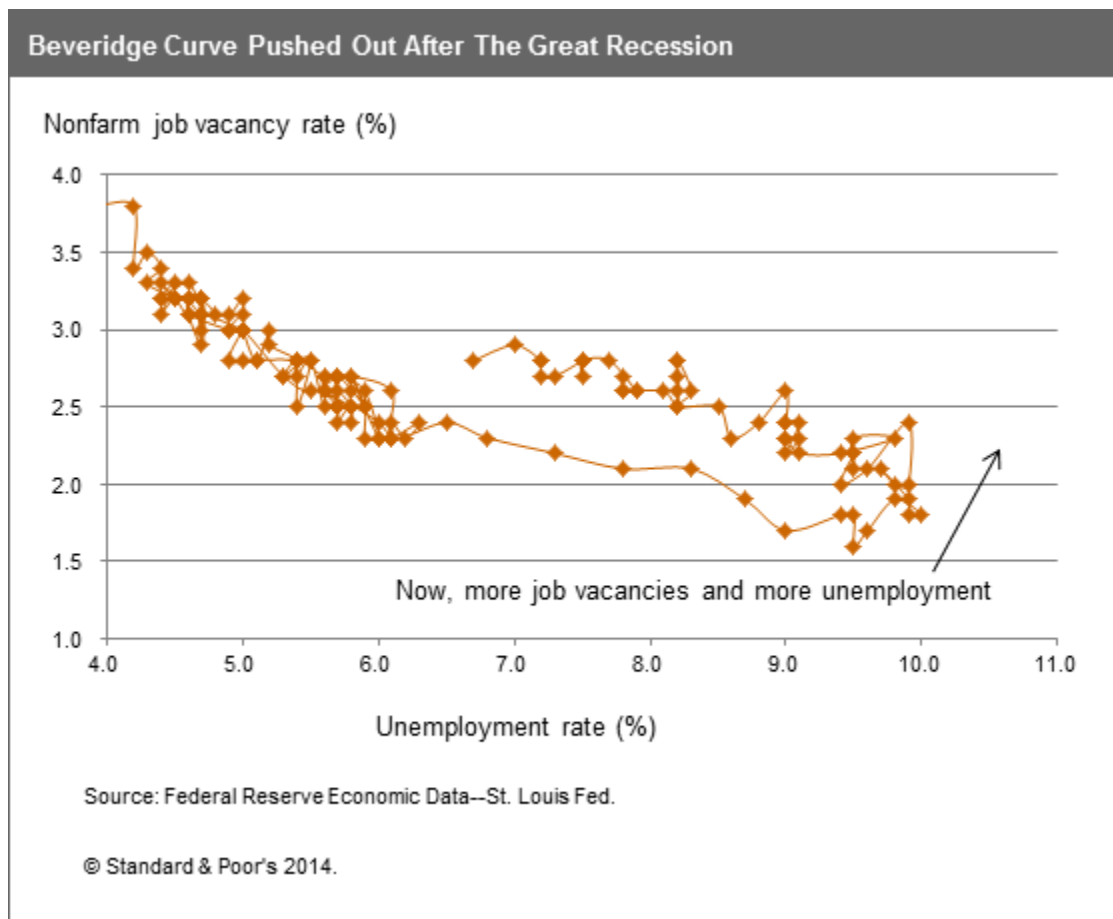
We are facing the so-called brain drain: We educate promising foreign students at our colleges and universities, only to tell them to take their talents and go home. But our own citizens are poorly equipped to fill in and take these jobs.

About 10.5 million Americans said that they were unemployed in February. Adding people working part time because they couldn't get full-time jobs and discouraged workers who quit looking, it tops 18 million. But according to the

government's Job Openings and Labor Turnover report, 4 million jobs sit unfilled. Businesses can't find the right workers to fill their job openings. This gap between skills offered by job seekers and what employers need to fill their open positions has grown to the highest since 2008.

The Beveridge curve is a graphical representation of the relationship between unemployment and the job vacancy rate, or the number of unfilled jobs as a percent of the labor force. As seen below, the curve is downward sloping since a higher rate of unemployment usually happens with low job vacancy rates. When the curve shifts outward, due to mismatches between vacancies and the unemployed and an immobile labor force, the jobs market is less efficient. The economy sees higher levels of unemployment at a given level of vacancies, which occurred in 2010 to 2012 (see chart 5). In other words, a vacancy rate of 2.8% historically meant the economy was experiencing an unemployment rate of 5%. The December 2013 vacancy rate was 2.8%, but we suffered an unemployment rate well above that amount, at 6.7%.

Chart 5



That explains why many people without jobs will still have a hard time finding the right career when the economy strengthens. And the longer they remain unemployed, the more their skills atrophy and the less attractive they become to potential employers, damaging their income potential and the U.S. economy's long-term productivity. Former Federal Reserve Chairman Ben Bernanke was just as worried, saying on Sept. 28, 2011, that the long-term unemployed

"are losing the skills they had, they are losing their connections, their attachment to the labor force... The unemployment situation we have, the job situation, is really a national crisis."

Key to America's long-term economic prosperity, in our view, are the individuals with deep knowledge in their fields, the ability to innovate and adapt, and the drive to develop new products and technologies. Unfortunately, the U.S. doesn't seem to be producing enough college graduates with this makeup. Not only does the low rate of college readiness in many high schools limit the number of potential degree earners, but for those students who are prepared to continue their education, costs are escalating beyond what many can afford. (See "Higher Education Is Key To Economic Growth And Competitiveness—But Can The U.S. Retain Its Edge?" published Feb. 7, 2012, on RatingsDirect.) This puts the U.S. at risk of falling behind in technological innovation and jeopardizes its global economic leadership.

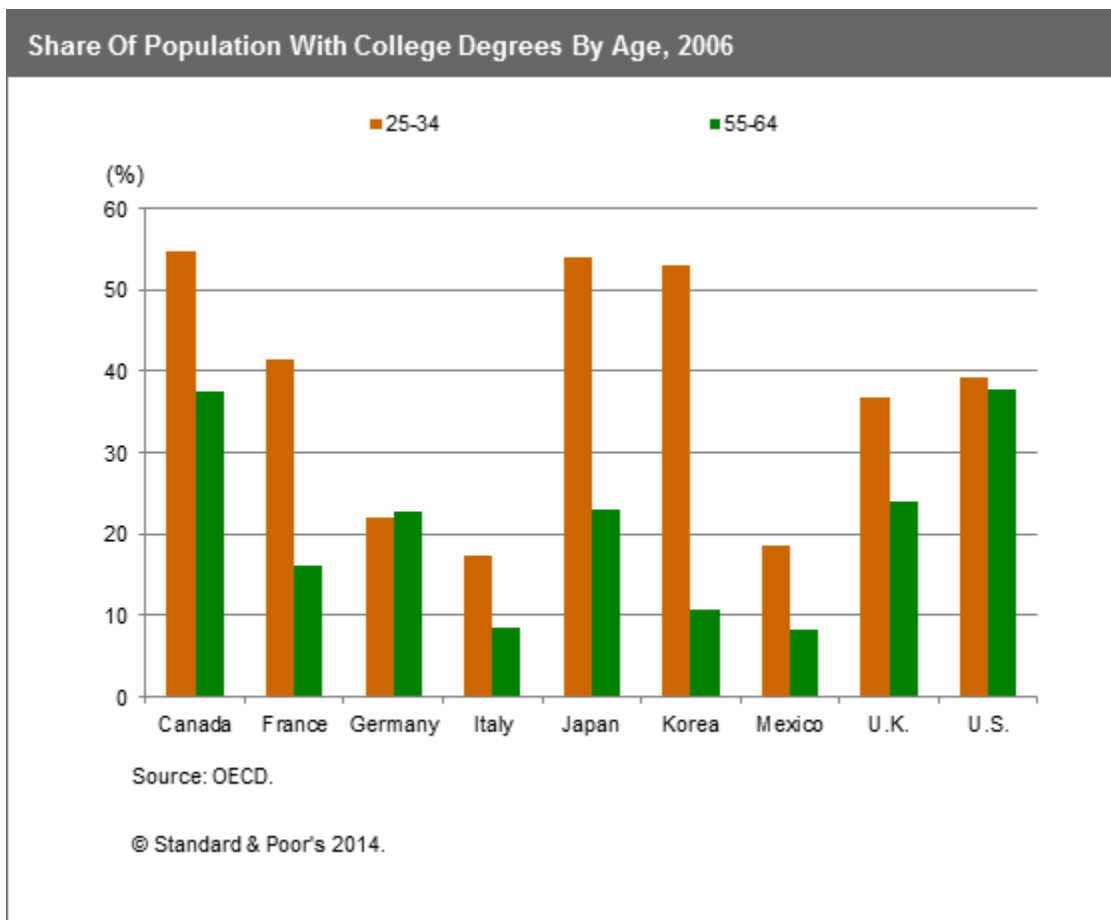
Add to this a legal system that is discouraging--if not hostile--to companies seeking talent outside the U.S., and it's clear that American businesses, and, in turn, the U.S. economy, are operating at less-than-full capacity.

Ironically, the people we ask to leave our country can help reduce our country's deficiencies. Several recent studies, including a report from the Federal Reserve Bank of St. Louis, have shown that the presence of more educated workers can actually make other employees more productive in what is called "knowledge spillover." In turn, this can help raise wages. One study found that a one-percentage-point increase in the number of college graduates in a workplace can raise wages for high-school dropouts by 1.9%, for high-school graduates by 1.6%, and for other college graduates by 0.4% (Moretti, 2004).

Still, the most serious obstacle new businesses face is a shortage of qualified talent, according to research by John Dearie, executive vice president for Policy Financial Forum, and Courtney Geduldig, vice president for McGraw-Hill Financial's Government and Regulatory Affairs. In interviews conducted for their 2013 book "Where the Jobs Are: Entrepreneurship and the Soul of the American Economy," the two found that entrepreneurs across the U.S. highlighted the same two issues: A U.S. education system that doesn't churn out enough graduates with the skills and training that companies need, and a scarcity of qualified foreign talent because of current immigration policies. And if the talent isn't here, businesses have made it clear that they can move their business overseas.

The U.S. is no longer the world's leader in major higher-education benchmarks such as college attendance rates and attainment of degrees. While U.S. college enrollment has risen in the past two decades, our trading partners have shown bigger increases. Approximately 39% of Americans aged 25-34 had a college degree in 2006, according to the OECD, compared with more than half of people the same age in Canada, Japan, and Korea. Moreover, the proportion of degreeholders among Americans aged 25-34 is virtually the same as that among those 55-64, meaning that graduation rates haven't changed much--a sharp contrast with some other countries, where graduation rates have increased significantly.

Chart 6



Specifically, there's a severe shortage of graduates with backgrounds in the STEM fields, according to Mr. Dearie and Ms. Geduldig. And while this problem is certainly not unique to startup companies, it hits new businesses especially hard. This is because, in the initial phase of a new business, skilled talent is the key to transforming ideas into products and to carving out a presence in the markets for those new products. This doesn't mean that you have to get a university degree in a STEM discipline, but it does require that potential workers have to learn those subjects before they head off to the workplace. The impact of stronger STEM knowledge would be powerful, and economists at Harvard University estimate that if the math proficiency of U.S. students (32% of U.S. eighth-graders were proficient in math) improved to levels in Canada and South Korea (41% and 47%, respectively), U.S. economic output could grow by "nothing less than \$75 million" over the next 80 years, or about \$1 trillion a year (Dearie-Geduldig, 2013).

So what's the solution?

There has been growing consensus among businesses, schools, parents, and students that the current school system doesn't give graduates the skills they need to succeed in this post-recession work force. No matter where you stand on the debate, things must change.

A number of initiatives have been introduced to try and close the national skills gap. Tennessee Governor Bill Haslam offered one solution: diverting the \$300 million in receipts from the state's lottery program to make two years of

vocational or community college free for all high school graduates.

Others have argued that schools and businesses should partner with developing school curricula to ensure that schools serve both students' broader education needs and the skills they'll need to succeed at work. This doesn't necessarily require a four-year degree, which is good because not everyone has the opportunity, the time, or the money to do that right after high school. Jamai Blivin, founder of Innovate+Educate, has argued that rather than the usual plan of going to a four-year college to work, a new pathway to work could start with an internship, then an entry-level job, and then to community college. The Bureau of Labor Statistics study, which showed that 48% of college graduates are working in jobs that don't require a four-year degree, gives this argument some support.

Where Will The Path To Citizenship Lead The U.S.?

For its part, the Senate has proposed a bill that would provide a 13-year path to citizenship for most applicants. Residents who can prove they came to the U.S. before the age of 16 would have an accelerated, if still somewhat arduous, process--five years of "provisional" status before being eligible to apply for a green card, and citizenship three years later--which still addresses border security issues.

The question of legalizing undocumented immigrant workers has gained as much, if not more attention, than increased legal immigration. Although it has stolen the stage, we expect the overall economic impact on the U.S. from legalizing undocumented workers to be modest.

We also look at the impact of legalizing undocumented workers already in the U.S., in combination with tighter border enforcement codes to prevent further undocumented workers from arriving on our shores. The 11.5 million estimated undocumented workers are working and spending in the U.S. already, so it is captured in today's growth measures.

Without reform, we still have these undocumented workers (who often take jobs we don't want, meaning employers can pay them less), and while many pay their taxes (yet don't collect refunds for fear of being discovered and deported), the downside is that their children, who have a legal right to education and emergency (uninsured) health care, can be a drain on public resources.

However, the impact on government finances from granting citizenship to undocumented workers isn't as straightforward. According to the 2013 cost estimate by the CBO and the staff of the Joint Committee on Taxation, the Senate's reform proposal would generate changes in direct spending and revenues that would reduce federal budget deficits by \$56 billion over 2014–2018 and \$197 billion over 2014–2023, but this considers all the provisions of the bill, not just legalization. The CBO estimated that the bill would reduce total deficits by about \$840 billion over the next 20 years because the increased taxes paid by immigrants--both new immigrants and current undocumented workers who convert from undocumented to legal status--would be larger than the bill's increased costs, in part because the Senate bill includes substantial benefit reductions for immigrants converting from undocumented to legal status. Increases in immigration would improve Social Security's finances, according to a Social Security Administration Trustees' report.

The Institute on Taxation and Economic Policy provided state-by-state estimates of taxes paid by undocumented workers and concluded that these families are now likely paying about 6.4% of their income on average in state and

local taxes. They argued that allowing undocumented immigrants to work legally in the U.S. would bring their payments closer to 7%, which is in line with documented taxpayers with similar incomes. This analysis assumes that these workers would have increased skills and bargaining power with employers after legalization, increasing their wages and taxes paid. In contrast, the Heritage Foundation (2013) focused on the fiscal costs of legalization of undocumented workers, finding that former undocumented immigrants would generate a lifetime fiscal deficit of \$6.3 trillion (constant 2010 dollars) with a large negative fiscal impact at the federal, state, and local levels.

Still, it's important to remember that not all state and local governments bear equal costs. Rather, education and health services for immigrant children are generally state liabilities, concentrated in places such as California, Nevada, Texas, Florida, New Mexico, and Arizona. In this light, some states may be saddled with costs that can only be recouped in the long term, if at all.

At the same time, it's difficult to determine precisely the effect an influx of immigrants has on a city's credit quality. (See "Immigration Through The Lens Of U.S. Local Government General Obligation Ratings," published May 17, 2012, on RatingsDirect.) There is no definitive answer to the question of whether heavy immigration boosts economic activity or simply correlates with it, especially in cities that boast strong economies and are thus attractive to immigrants.

That said, it's our view that immigrants can both add to the economy and bring new contributions that wouldn't otherwise exist. Also, a growing population typically means higher demand for housing, which can bolster real estate prices and property-tax revenues, create local construction jobs, and support area businesses. To encourage this, some cities offer an employment-based immigration program (also known as EB-5) for foreigners to obtain legal residency through job creation and investment. In addition, foreign direct investment (FDI) involves bringing new technology or funds for physical projects to the U.S. By 2007 (the latest figures available), FDI had created 2.2 million manufacturing jobs in the U.S., with an average salary of \$63,000.

A Small Step Back For A Long-Term Gain

Perhaps the first step toward immigration reform is to debunk the myth that adding to the workforce would exacerbate unemployment and depress wages for Americans. In fact, data show that immigrants and native-born workers are generally complementary, rather than perfect substitutes. Additionally, many immigrants would likely be highly skilled workers in the STEM fields and, thus, would significantly contribute to innovation and growth. As a result, immigration would likely create job opportunities for native-born Americans.

At any rate, we see evidence that legislators in both parties believe the ability to lure the most qualified candidates would be a boon to the competitiveness of U.S. companies and the economy. All told, we believe that legislative reform that further opened the country to highly skilled immigrants who could legally enter the country, either permanently or temporarily, would help boost U.S. economic expansion--at a time when the U.S. recovery is only slowly strengthening.

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