



FACTS YOU CAN USE

To Prove That High-Skilled Immigration is Good for America's Workforce and Economy

Immigrants Create Jobs for U.S.-Born Workers

- **Immigration encourages job growth across the United States:** An analysis of 505 metropolitan areas from 2005 to 2011 found that immigration positively influences job growth in metropolitan areas.¹
- **High-skilled immigrants create American jobs:** Every foreign-born worker in the United States with a U.S. STEM degree creates 2.62 jobs for U.S.-born workers.²
- **Young skilled immigrants have a positive impact on hiring:** In 2014, the hiring of one young skilled immigrant worker was found to be associated with the hiring of an additional 3.5 workers over the following 14 years.³
- **H-1B visa holders create American jobs:** Every H-1B visa holder creates 1.83 American jobs,⁴ and the H-1B visas awarded between 2010 and 2013 will create more than 700,000 jobs for U.S.-born workers by 2020.⁵
- **H-1B visa holders are particularly valuable to small businesses:** Firms with fewer than 5,000 employees were found to hire an additional 7.5 workers for each H-1B worker hired.⁶
- **H-1B workers complement – instead of displace – U.S. workers:** Hiring immigrants often raises wages for U.S.-born STEM workers due to foreign-born and U.S.-born workers specializing in different roles. As employers use foreign-born workers to fill more technical or low-level jobs, firms are able to expand, allowing U.S.-born employees to assume managerial and leadership positions.⁷

America Faces Scarcity in STEM Fields

- **There are more STEM job openings than unemployed STEM workers:** From 2009 to 2011, 1.9 STEM jobs were posted online for every unemployed STEM worker looking for work in the United States.⁸
- **Employers report difficulty hiring:** More than one quarter of science and engineering firms report difficulty hiring.⁹
- **Jobs requiring STEM knowledge take significantly longer to fill:** Nationally, 43 percent of job vacancies for STEM occupations with H-1B requests were still posted after one month, as opposed to 38 percent of vacancies in non-STEM occupations requiring a bachelor's degree, and 32 percent of non-STEM vacancies.¹⁰
- **As STEM fields grow, this problem will likely get worse:** STEM occupations will see the fastest growth of any field between 2010 and 2020.¹¹ By 2018, the United States will face a shortage of more than 223,000 people in STEM fields.¹²
- **Recent STEM wage growth indicates a scarcity in STEM fields:** Wages are increasing for STEM jobs requiring higher levels of education, indicating the demand for qualified workers is greater than supply,¹³ and across the country, high-tech workers have seen notable wage increases in recent years.¹⁴
- **Employment data indicates a scarcity in STEM fields:** In 2011, while the national unemployment rate hovered at about 8 percent nationwide, U.S. citizens with PhDs in STEM had an unemployment rate of 3.2 percent, and those with master's level degrees in STEM fields had an unemployment rate of 3.4 percent.¹⁵ For many STEM occupations, including computer engineers, chemists, and network and computer systems administrators, there is full employment for native-born workers.¹⁶
- **The medical sector is particularly hard hit by the scarcity in STEM fields:** Researchers project that demand for physicians will exceed supply by a range of 46,000 to 90,000 by 2025,¹⁷ and that the United States will face a nursing shortage of 808, 416 – or 29 percent of the needed supply – by 2020.¹⁸

Immigrants Can Help Fill STEM Shortages in America

- **Too few U.S. students are pursuing STEM degrees:** The number of U.S. students pursuing STEM degrees is growing by just 1 percent per year.¹⁹
- **Immigrants are more likely to study STEM than the native-born:** During the decade between 2002-2003 and 2011-2012, just 2 percent of graduate degrees earned by U.S. citizens and green card holders were in STEM, compared to 23 percent of graduate degrees earned by foreign students in U.S. universities.²⁰
- **Immigrants can fill shortages in the medical sector:** In the healthcare industry, immigrants are more than twice as likely to be physicians and surgeons as the native-born.²¹ In 2012, more than 24 percent of America's physicians were international medical graduates, a population that is overwhelmingly foreign-born.²²

Immigrants Contribute to America's Economy as Entrepreneurs

- **Immigrants are driving new business growth in the United States:** Immigrants started 28 percent of all new U.S. businesses in 2011, despite accounting for just 12.9 percent of the U.S. population.²³
- **Immigrants have created many of America's greatest companies:** Immigrants and their children have founded 40 percent of Fortune 500 companies.²⁴

- **Immigrant-owned businesses make huge contributions to America's GDP:** Immigrant-owned businesses generated more than \$775 billion in revenue for the economy in 2011.²⁵
- **Immigrant-owned businesses are employing millions of workers:** Businesses owned by Latinos and Asians employ 4.7 million workers a year.²⁶ In 2011, one in every 10 U.S. workers at a privately owned company was working for an immigrant-owned business.²⁷
- **Immigrants are far more entrepreneurial than their native-born counterparts:** Immigrants are more than twice as likely to start a business as the native-born.²⁸ In 2012, 11.7 percent of Hispanic immigrants were entrepreneurs, compared to 10 percent of the U.S. population.²⁹
- **Immigrants start a quarter of engineering and technology companies in the United States:** Between 2006 and 2012, 24.3 percent of the engineering and technology companies founded in the United States had at least one immigrant founder. In Silicon Valley, that rate was 43.9 percent. Nationwide, these companies employed about 560,000 workers and generated \$63 billion in sales in 2012.³⁰

Immigrants Contribute to America's Economy as Innovators

- **Immigrants are inventing the products that will drive innovation over the coming decades:** In 2011, more than 3 out of every 4 patents awarded to the top 10 U.S. patent-producing universities had at least one foreign-born inventor.³¹
- **These inventions are growing our economy:** In FY 2010, the top 10 U.S. patent-producing universities earned nearly \$450 million in patent licensure revenue.³² Immigrant patent innovations between 1990 and 2000 grew U.S. GDP by 2.4 percent.³³
- **H-1B visa holders encourage innovation:** A 10 percent growth in the firm's H-1B population corresponds with a 3.3 percent increase in the number of patents awarded to the firm, keeping U.S. businesses innovative and ahead of the pack in competitive global economy.³⁴

Immigrants Do Not Depress U.S.-Born Worker Wages — And In Fact, Often Boost Them

- **Foreign-born STEM workers are paid the same, if not more, than their U.S.-born counterparts:** Foreign-born STEM workers actually earn \$61 more on average per week than U.S.-born STEM workers.³⁵
- **Immigrants increase average U.S. income over time:** From 1990 to 2007, immigration to the United States was associated with a 6.6 percent to 9.9 percent increase in real income per worker.³⁶ Researchers have found that foreign-born STEM workers coming to the United States may explain between 10 and 25 percent of the aggregate productivity growth that took place in the United States between 1990 and 2010.³⁷ In the long run, immigrants' productivity increases average income.³⁸
- **H-1B visa holders increase wages for American workers:** A nationwide study of 219 cities found that H-1B-driven increases in STEM workers were associated with wage increases of 7 to 8 percent for college-educated native-born workers, while non-college educated workers saw a wage increase of 3 to 4 percent.³⁹
- **H-1B-dense industries experience higher than average wage growth:** Wage growth for workers in occupations with large numbers of H-1B petitions was substantially higher than for workers in low H-1B-dense occupations. For example, engineers saw their wages rise by 2.1 percent between 2009 and 2011.⁴⁰

- **The H-1B program can explain a quarter of the wage growth of U.S. college-educated workers between 1990 and 2010.** An enlargement of the H-1B program could generate an extra 2 percentage points of wage growth for highly educated natives over the following 20 years.⁴¹

U.S. Immigration Policies are Preventing Economic Growth in America

- **H-1B visa denials are costing American workers jobs and wages:** H-1B visa denials in the 2007 and 2008 H-1B visa lotteries cost U.S.-born workers as many as 231,224 tech jobs and as much as \$3 billion in aggregate annual earnings in the two years that followed.⁴²
- **Admitting more H-1B workers will improve wage growth for U.S.-born workers:** From 2005 to 2010, wages for college-educated, U.S.-born workers with computer-related jobs could have grown 3.2 percent more than they did were it not for the application denials in the 2007 and 2008 H-1B lotteries.⁴³
- **Our universities attract the best and the brightest from around the world, yet our immigration policies make it extremely difficult for these students to remain in the country after graduation:** In 2013, 56.3 percent of doctoral-level engineering students and 52.2 percent of doctoral-level math and computer science students at U.S. universities were temporary residents, a group with no clear path to stay in the United States after graduation.⁴⁴
- **Foreign-born STEM graduates are returning home after graduation to compete against us from abroad:** One in three students on a temporary student visa who earned science or engineering doctorates in 2006 were not working in the United States five years after graduation,⁴⁵ and this rate is likely increasing since immigrant visa backlogs have doubled since that time.⁴⁶

Other Countries Are Welcoming the Talent America is Turning Away

- **The United States issues far fewer employment visas than other countries:** Just 7 percent of all U.S. visas are allocated for employment visas – in other countries it's as much as 50 percent.⁴⁷
- **The United States is falling behind its competitors in welcoming global talent and international entrepreneurs:** In a recent survey of developed countries, the United States ranked second to last – ahead only of Japan, a country traditionally closed to immigrants – in terms of welcoming skilled immigrants and entrepreneurs.⁴⁸
- **Other countries are adopting policies to attract high-skilled immigrants and entrepreneurs:** Unlike the United States, many other countries – including, Germany, Australia, Canada, and Singapore – have no caps on high-skilled immigrant worker visas, clear means to legal permanent residency for these high-skilled workers, very low levels of rejection of intracompany transfer visas, and special visas for entrepreneurs. Meanwhile, the United States rejects the majority of high-skilled immigrant worker visas due to quotas.⁴⁹
- In 2010, the United States issued only 6.4 percent of visas for economic reasons, compared to the U.K.'s 33 percent. This makes the United States an outlier in relations to other developed countries.⁵⁰

Endnotes

1. Jack Strauss and Hailong Qian (2014) "Immigrants or Jobs: Which Comes First to a Metro?" January 2014. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2339192
2. Madeline Zavodny (2011) "Immigration and American Jobs," American Enterprise Institute and the Partnership for a New American Economy, December 15, 2011. Available at: http://www.renewoureconomy.org/wp-content/uploads/2011/12/NAE_Im-AmerJobs.pdf
3. Kerr et al. (2014) "Skilled Immigration and the Employment Structures of U.S. Firms," Journal of Labor Economics, September 2014. Available at: <http://www.econ.psu.edu/classes-seminars/seminar-documents/william-lincoln-skilled-immigration-and-the-employment-structures-of-u-s-firms-1>
4. Madeline Zavodny (2011) "Immigration and American Jobs," American Enterprise Institute and the Partnership for a New American Economy, December 15, 2011. Available at: http://www.renewoureconomy.org/wp-content/uploads/2011/12/NAE_Im-AmerJobs.pdf
5. The Partnership for a New American Economy (2015) "The H-1B Employment Effect," April 2015. Available at: http://www.renewoureconomy.org/wp-content/uploads/2015/04/H1B_Effect.pdf
6. National Foundation for American Policy (2008) "NFAP Policy Brief: H-1B Visas and Job Creation," March 2008. Available at: <http://www.nfap.com/pdf/080311h1b.pdf>
7. Giovanni Peri (2010) "The Effect of Immigrants on U.S. Employment and Productivity," Economic Letter 2010-26, Federal Reserve Bank of San Francisco, August 2010. Accessible at: <http://www.frbsf.org/economic-research/publications/economic-letter/2010/august/effect-immigrants-us-employment-productivity/>
8. Change The Equation (2014) "Vital Signs." Available at: <http://vitalsigns.changetheequation.org/>
9. Manyika et al. (2011) "An Economy that Works," McKinsey, June 2011. Available at: http://www.mckinsey.com/insights/employment_and_growth/an_economy_that_works_for_us_job_creation
10. Jonathan Rothwell and Neil G. Ruiz (2013) "H-1B Visas and the STEM Shortage," Brookings Institution, May 10, 2013. Available at: <http://www.brookings.edu/research/papers/2013/05/10-h1b-visas-stem-rothwell-ruiz>
11. Anthony P. Carnevale, Nicole Smith, and Jeff Strohl (2013) "Recovery 2020: Job Growth and Education Requirements Through 2020," June 2013. Available at: <https://georgetown.app.box.com/s/tll0zkxt0puz45hu21g6>
12. The Partnership for a New American Economy and the Partnership for New York City (2012) "Not Coming to America," May 2012. Available at: <http://www.renewoureconomy.org/wp-content/uploads/2013/07/not-coming-to-america.pdf>
13. Bureau of Labor Statistics (2014) "Occupational Employment Statistics," May 2014. Available at: http://www.bls.gov/oes/current/oes_nat.htm
14. Jones Lang LaSalle (2014) "High-tech boosts office recovery, but at a high cost," July 2014. Available at: <http://www.us.jll.com/united-states/en-us/Research/US-high-tech-July-2014.pdf>
15. The Partnership for a New American Economy, Information Technology Industry Council, and the U.S. Chamber of Commerce (2012) "Help Wanted," November 2012. Available at: <http://www.renewoureconomy.org/wp-content/uploads/2013/07/stem-report.pdf>
16. Compiled from Current Population Survey, a project of the Bureau of Labor Statistics and the Census Bureau. The data set is pooled monthly CPS samples for 12 months – December 2013 through November 2014. Observations do not include any of the social sciences and were weighted using the BLS composite monthly weight variable. Monthly weights were divided by 12, so totals are estimates of average monthly employment over the year. The 12 months of observations are the most recent 12 months available as of January 12, 2015.
17. Association of American Medical Colleges (2015) "Physician Supply and Demand Through 2025: Key Findings," March 2015. Available at: <https://www.aamc.org/download/426260/data/physiciansupplyanddemandthrough2025keyfindings.pdf>
18. U.S. Department of Health and Human Services (2002) "Projected Supply, Demand and Shortages of Registered Nurses; 2000-2020," The Health Resources and Service Administration, Bureau of Health Professions, National Center for Health Workforce Analysis, July 2002. Available at: http://www.ahcancal.org/research_data/staffing/Documents/Registered_Nurse_Supply_Demand.pdf
19. McKinsey Global Institute, "An Economy that Works: Job Creation and America's Future," (June 2011). Available at: http://www.mckinsey.com/Insights/MGI/Research/Labor_Markets/An_economy_that_works_for_US_job_creation
20. "Science, Technology, Engineering, and Mathematics Education: Assessing the Relationship between Education and the Workforce" (GAO-14-374, General Accountability Office, May 2014). Available at: <http://www.gao.gov/assets/670/663079.pdf>
21. Audrey Singer (2012) "Immigrant Workers in the US Labor Force," Brookings Institution and the Partnership for a New American Economy, March 2012. Available at: http://www.brookings.edu/~media/research/files/papers/2012/3/15%20immigrant%20workers%20singer/0315_immigrant_workers_singer.pdf
22. Association of American Medical Colleges (2013) "2013 State Physician Workforce Data Book" Prepared by the Center for Workforce Studies, AAMC, November, 2013. Available at: [https://members.aamc.org/eweb/upload/State%20Physician%20Workforce%20Data%20Book%202013%20\(PDF\).pdf](https://members.aamc.org/eweb/upload/State%20Physician%20Workforce%20Data%20Book%202013%20(PDF).pdf)

23. Robert W. Fairlie (2012) "Open for Business," The Partnership for a New American Economy, August 2012. Available at: <http://www.renewoureconomy.org/wp-content/uploads/2013/07/openforbusiness.pdf>
24. The Partnership for a New American Economy (2011) "The 'New American' Fortune 500," June 2011. Available at: <http://www.renewoureconomy.org/wp-content/uploads/2013/07/new-american-fortune-500-june-2011.pdf>
25. Robert W. Fairlie (2012) "Open for Business," The Partnership for a New American Economy, August 2012. Available at: <http://www.renewoureconomy.org/wp-content/uploads/2013/07/openforbusiness.pdf>
26. Immigration Policy Center (2013), "Strength in Diversity: The Economic and Political Power of Immigrants, Latinos, and Asians," January 2013. Available at: <http://www.immigrationpolicy.org/just-facts/strength-diversity-economic-and-political-power-immigrants-latinos-and-asians>
27. Robert W. Fairlie (2012) "Open for Business," The Partnership for a New American Economy, August 2012. Available at: <http://www.renewoureconomy.org/wp-content/uploads/2013/07/openforbusiness.pdf>
28. Ibid.
29. The Partnership for a New American Economy and the Latino Donor Collaborative (2014) "Better Business," April 2014. Available at: <http://www.renewoureconomy.org/wp-content/uploads/2014/04/hispanic-entrepreneurs-final.pdf>
30. The Kauffman Foundation (2012) "Then and Now: America's New Immigrant Entrepreneurs, Part VII," October 2012. Available at: http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2012/10/then_and_now_americas_new_immigrant_entrepreneurs.pdf
31. The Partnership for a New American Economy (2012) "Patent Pending," June 2012. Available at: <http://www.renewoureconomy.org/wp-content/uploads/2013/07/patent-pending.pdf>
32. Ibid.
33. Jennifer Hunt and Marjolaine Gauthier-Loiselle (2008) "How Much Does Immigration Boost Innovation?" The National Bureau of Economic Research, September 2008. Available at: <http://www.nber.org/papers/w14312.pdf>
34. William Kerr and William Lincoln (2010) "The Supply Side of Innovation: H-1B Visa Reforms and U.S. Ethnic Invention," *Journal of Labor Economics*, July 2010. Available at: <http://bit.ly/1F1w8ZS>
35. The Partnership for a New American Economy, Information Technology Industry Council, and the U.S. Chamber of Commerce (2012) "Help Wanted," November 2012. Available at: <http://www.renewoureconomy.org/wp-content/uploads/2013/07/stem-report.pdf>
36. Ibid.
37. Giovanni Peri, Kevin Shih, and Chad Sparber (2013) "STEM Workers: H-1B Visas and Productivity in U.S. Cities," February 2013. Available at: <http://eml.berkeley.edu/~webfac/card/laborlunch/peri.pdf>
38. Giovanni Peri (2010) "The Impact of Immigrants in Recession and Economic Expansion," Migration Policy Institute, June 2010. Available at: <http://www.migrationpolicy.org/research/impact-immigrants-recession-and-economic-expansion>
39. Giovanni Peri, Kevin Y. Shih, Chad Sparber (2013) "Foreign STEM Workers and Native Wages and Employment in U.S. Cities," National Bureau for Economic Research Working Paper, No. 20093. Available at: <http://www.nber.org/papers/w20093>
40. Jonathan Rothwell and Neil G. Ruiz (2013) "H-1B Visas and the STEM Shortage," Brookings Institution, May 10, 2013. Available at: <http://www.brookings.edu/research/papers/2013/05/10-h1b-visas-stem-rothwell-ruiz>
41. Giovanni Peri, Kevin Shih, and Chad Sparber (2014) "Foreign Scientists and Engineers and Economic Growth," *Cato Papers on Public Policy*, Vol. 3, Cato Institute, 2014. Available at: <http://object.cato.org/sites/cato.org/files/serials/files/cato-papers-public-policy/2014/6/cppp-3-3.pdf>
42. Peri et al. (2014) "Closing Economic Windows," The Partnership for a New American Economy, June 2014. Available at: http://www.renewoureconomy.org/wp-content/uploads/2014/06/pnae_h1b.pdf
43. Ibid.
44. Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics (NCES), Department of Education, 2013. Available at: <https://nces.ed.gov/ipeds/>
45. Michael G. Finn (2014) "Stay Rates of Foreign Doctorate Recipients from U.S. Universities" Oak Ridge Institute for Science and Education, U.S. Department of Energy, January 2014. Available at: <http://orise.orau.gov/files/sep/stay-rates-foreign-doctorate-recipients-2011.pdf>
46. Wait times have doubled since then. In 2006, wait times for a native of India who had completed a U.S. doctorate was 3½ years (July 2006) and today it is 7 years (May 2015) per the State Department's Visa Bulletin. Accessible at: <http://travel.state.gov/content/visas/english/law-and-policy/bulletin.html>
47. The Partnership for a New American Economy and the Partnership for New York City (2012) "Not Coming to America," May 2012. Available at: <http://www.renewoureconomy.org/wp-content/uploads/2013/07/not-coming-to-america.pdf>
48. Business Roundtable (2015) "State of Immigration: How the United States Stacks Up in the Global Talent Competition," March 2015. Available at: http://businessroundtable.org/sites/default/files/immigration_reports/BRT%20immigration%20report.pdf
49. Ibid.
50. Douglas Holtz-Eakin (2013) "Immigration Reform, Economic Growth, and the Fiscal Challenge," American Action Forum, April 2013. Available at: <http://americanactionforum.org/sites/default/files/Immigration%20and%20the%20Economy%20and%20Budget.pdf>