



U.S. CHAMBER OF COMMERCE

U.S. Immigration Reform and STEM Jobs... By The Numbers

Claim:

There is no shortfall of native-born Americans for open positions in the natural sciences, engineering and computer science. (IEEE, the union representing electrical and electronic engineers)

Fact – Low unemployment in STEM occupations demonstrates the STEM shortfall in the U.S. economy

- Unemployment for native-born is particularly low in STEM occupations, such as Petroleum Engineers (0.1%), Computer Network Architects (0.4%), Nuclear Engineers (0.5%), Environmental Scientists and Geoscientists (1.2%), Database Administrators (1.3%), Statisticians (1.6%), Engineering Managers (1.6%), and Aerospace Engineers (1.9%). (Current Population Survey)

Fact – Job openings are expanding precisely at the educational levels where the demographic data show too few native-born students, so we can expect these shortfalls to persist in the future

- 22% of new job openings through 2020 are projected to require a Masters or higher degree. (Bureau of Labor Statistics)
- There are 25% more foreign born graduate degree holders in the U.S. than native-born. For example, 10.6% of the foreign born in the U.S. age 25-34 have earned Masters, professional degrees, or Doctorates, while 8.5% of the native-born population of the same age have the same credentials. (U.S. Census Bureau)

Fact – STEM skills fall across educational levels, and an inadequate supply of native-born workers trained in certain key STEM categories has brought about the current shortfall

- When talking about insufficient numbers of native-born Americans in STEM, one needs to be specific about what types of jobs, requiring what type of skills and education. In the computer science and mathematical science occupations, the job distribution is 6.9% of jobs require skills of high school diploma or less, 18.7% require skills based on some college, 10.5% require Associates level skills, 43.8% Bachelor's skills, 17.7% Masters skills, .8% Professional Degree skills, 1.7% Doctorate skills. (Bureau of Labor Statistics)
- Over 40% of Masters and Doctorates in STEM fields awarded by U.S. universities go to the foreign born. (Integrated Post-Secondary Education Data System of the Department of Education)
- About 19% of native-born pursue Bachelors in STEM fields while about 35% of the foreign born residing in the U.S. possess a STEM Bachelors, most often earned abroad. (American Community Surveys)

Fact – Relative to other economic indicators wages are increasing in STEM jobs requiring higher education, indicating a STEM shortfall

- Engineer wages have risen by 7% relative to all other occupations since 2003 and by 3% since 2008. Computer and mathematical occupations wages have risen relative to other occupations by 3% since 2003 and by 1% since 2010. (Bureau of Labor Statistics)
- From 1999 to 2011, the Consumer Price Index increased by 36% and the average wage for computer and mathematical occupations increased 44%. (Bureau of Labor Statistics Occupational Employment Statistics and Consumer Price Index)
- From 1999 to 2011, wages grew by 54% for Computer and Information Research Scientists, 38% for Computer Programmers, 40% for Software Applications Engineers, 52% for Systems Software Engineers, 31% for Computer Support Specialists, and 47% for Database Administrators. (Bureau of Labor Statistics Occupational Employment Statistics)

