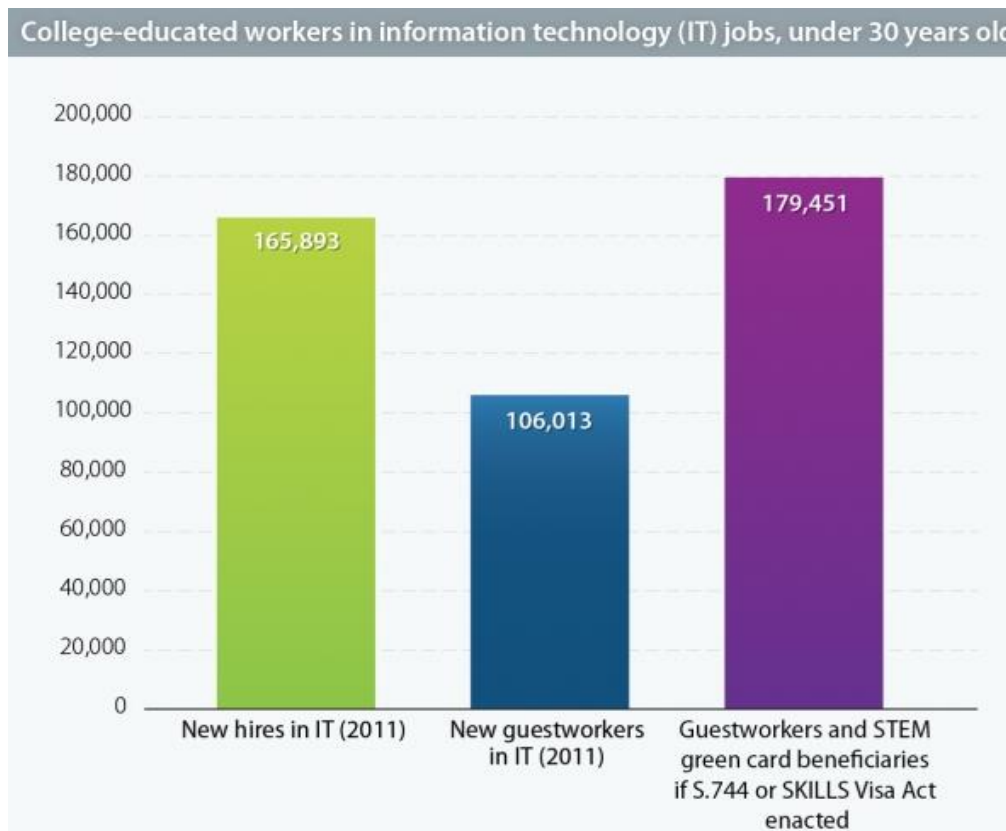


Senator Jeff Sessions
Questions for the Record
Dr. Hal Salzman
Professor, Edward J. Bloustein School of Planning and Public Policy
Senior Faculty Fellow, John J. Heldrich Center for Workforce Development
Rutgers University

1. What impact would legislation like S. 153, the I-Squared Act of 2015, have on the average American college graduate who is majoring in a STEM field?

As the figure below shows, increases of the magnitude proposed would supply guestworkers for more than 100 percent of the industry's hiring needs. Such increases can only exacerbate current trends of stagnant wages and poor career opportunities in IT and STEM fields. In particular, the likely impact of large-scale guest worker programs, which stand to hurt all STEM graduates, will have especially negative impacts on minorities who are underrepresented in high-tech, as well as other, recently arrived foreign-born workers who compete most with newcomers.



2. Many technology companies claim that they need more graduates with degrees in computer science, and that the United States does not currently produce enough. Could you please comment on these claims?

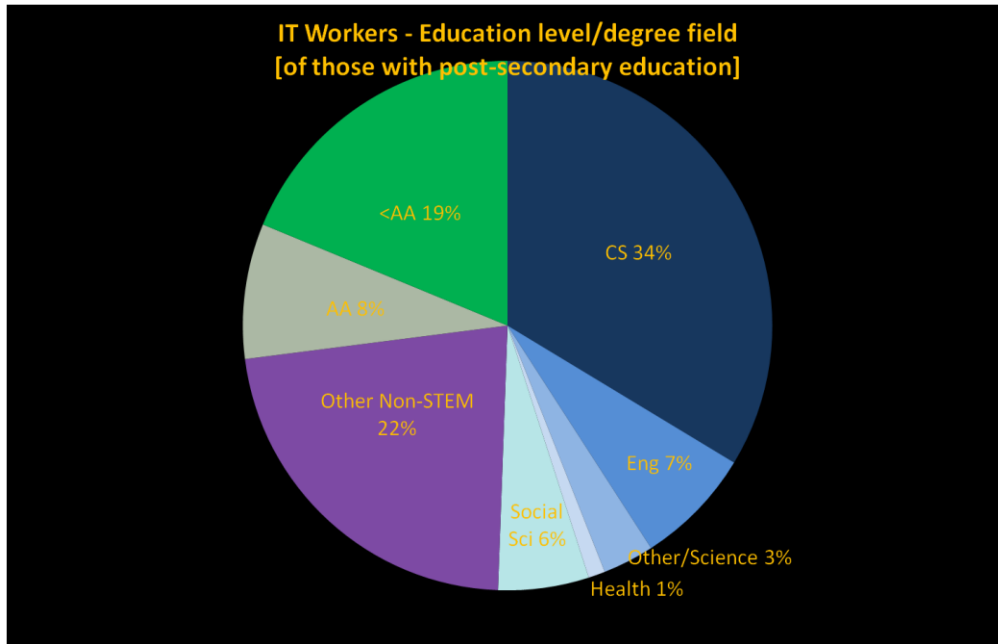
The U.S. STEM workforce numbers about 7.5 to 8 million, or about 5 percent of the workforce. The computer occupations comprise about half (48.5%) of the STEM workforce at 3.7 to 4 million workers. If we use the BLS projections for IT job growth, which is comprised of replacements (for those leaving the workforce because of retirements and job separations— layoffs and quits) and growth of the workforce, the IT industry needs approximately 124,000 new workers each year. Microsoft’s Washington representative and counsel Brad Smith (in his Congressional testimony) uses an earlier BLS projection of an annual increase of 120,000, and the trade organization code.org, echoed by the Computing Research Association, use 150,000 as the expected annual demand for new IT workers (Harsha, 2014). Smith and these associations then assert that the BLS workforce growth estimates represent the demand for computer science graduates. Matched against annual computer science graduation of 67,000 in 2012, the claim of a supply shortage is made. It is these statistics and claims that are repeated widely.

However, such claims misinterpret the BLS workforce projections for the computer occupations in asserting it is a demand for computer science graduates. For example, Daniel Costa conducted a detailed study of these computer science shortage claims by Microsoft and other companies and shows the evidence does not support these claims because, among other reasons, “[i]t is a well-known fact that computer science graduates are not the only source of new hires in computing....less than one-fourth to less than one-half of workers in computing occupations have a computer science degree” (Costa, 2012). In fact, of those currently in computer occupations, only 14 percent hold a computer science degree and another 4 percent have electrical engineering (EE) degrees. Since that reflects the education level of the entire current IT workforce, of all ages, it could understate the current cohort education levels.

Examining recent cohorts of all new entrants into IT occupations who have a post-secondary education, we find 34 percent have a bachelors or master computer science degree (See Figure 1); of just the pool of four-year college graduates entering computer occupations, 46 percent have a computer science degree. About 36 percent of entrants into computer occupations do not have any four year degree. Thus, we estimate that demand for new workers in computer occupations with a computer science degree as approximately 29 percent of the BLS projection of total demand for new workers (65% of new workforce entrants in computer occupations have a four-year degree and 46% of those have a degree in computer science, or 29% of all new workforce entrants). Using the actual educational composition of the computer occupations as

an estimate of hiring demand by education and degree, the supply of computer science graduates needed to meet industry demand would be approximately 36,500 computer science graduates each year (based on the BLS projection of 124,000 new jobs). Figure 2 shows the historical graduation numbers of computer science graduates.

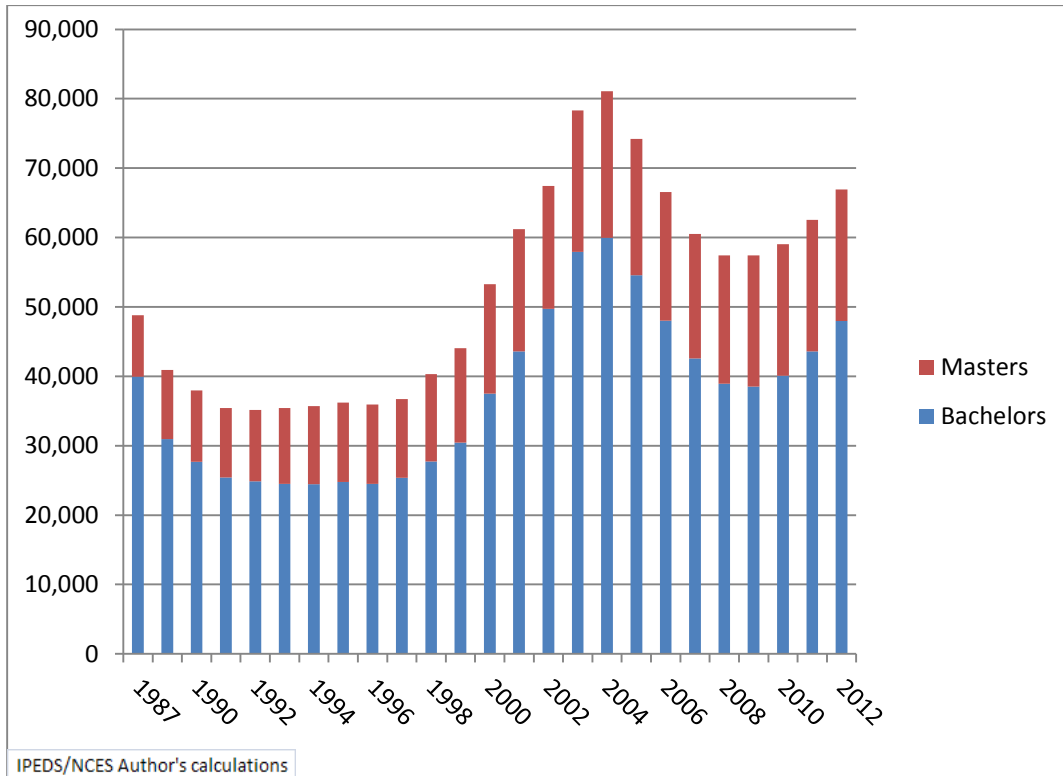
Figure 1: Education of IT workforce with postsecondary education



Source: BPS/NCES; calculations by author

Current graduation rates indicate that projected employment demand specifically for computer science (CS) graduates can be met by about half of the current supply of 70,000 Bachelors CS graduates each year, and the balance of demand can be met by those graduating with a range of other degrees, as is the historical pattern. Even if current industry hiring is for a much greater level of computer scientists than historical hiring patterns, the current pool of graduates would provide sufficient numbers of computer scientists to meet industry demand. Our analysis of a large, nationally representative survey of a recent college cohort by the National Center for Educational Statistics finds that only two-thirds of computer science graduates went into IT jobs in 2009 (that would include all IT jobs, not just those for formally defined as computer occupations). Of those not landing an IT job, half said they found a better job elsewhere. Fully one third reported there were no IT jobs available (although this was the year after the start of the Great Recession, this is only slightly lower than the historical trend; Salzman, et al., 2013). Also worth noting is that an additional 64,341 students earned an Associates degree, certification or licensure in IT in 2012, also far exceeding the expected

growth of 44,600 new IT workers with less than a Bachelors degree for work in the computer occupations (many of whom do not require an Associates degree, certification or licensure).



As a point of comparison to an industry that has used the market to increase the supply of graduates, petroleum engineers were in great demand and the observed starting salaries jumped from \$43,674 in 1997 to \$50,400 in 1999, \$55,987 in 2003, \$61,516 in 2005 (Bureau of Labor Statistics, 2004, 2006), and \$86,220 in 2010 (National Association of Colleges and Employers, 2010). That is, in petroleum engineering, where there was demonstrated high levels of demand by industry, starting salaries doubled. The IT firms offered new graduates the same salaries as in years past,¹ keeping average wages throughout this past decade at 1990s levels.²

¹ National Association of Colleges and Employers starting wage survey, January 27, 2016.

<http://www.nacweb.org/s01272016/STEM-grads-earn-highest-starting-salaries.aspx>

² Salzman, Hal & Kuehn, Daniel & Lowell, B. Lindsay (2013). Guestworkers in the High-Skill U.S. Labor Market: An Analysis of Supply, Employment, and Wage Trends. *Report*, April 24, 2013 <http://dx.doi.org/doi:10.7282/T379469D>

Our analysis of an extensive survey of a recent college cohort by the National Center for Educational Statistics finds computer science graduates do not find a high-demand market when they graduate. Only two-thirds of computer science graduates went into IT jobs in 2009. Of those not landing an IT job, half said they found a better job elsewhere. Fully one third reported there were no IT jobs available.

This was also the finding in our analysis of changes in the composition of STEM graduates going into STEM jobs over the past three decades (Lowell, et al., 2009). We found that although the overall supply remained strong, fewer of the highest performing students were going into STEM jobs.

Questions for the Record from Chairman Grassley
Senate Committee on the Judiciary Hearing:
The Impact of High-Skilled Immigration on U.S. Workers
February 25, 2015

Question for Mr. O'Neill:

1. Do you believe that the replacement of American workers by H-1B workers, as in the case of Southern California Edison or at Disney, or as described by Mr. Perrero during his testimony at the hearing, should be allowed under the H-1B laws?
2. Please say whether you agree or disagree with each of the following statements:
 - a. All employers should make a good-faith effort to recruit U.S. workers before hiring an H-1B visa holder.
 - b. All employers should be required to attest before hiring an H-1 visa holder that the hiring of such worker will not result in the displacement a U.S. worker either in the employer's company or at the worksite of an employer where the H-1B worker will be placed.
 - c. Before hiring an H-1B visa holder for a job, an employer should offer the job to any U.S. worker who applies and is equally or better qualified for the job than the H-1B worker.

Questions for Prof. Sparber:

1. In 2013 you, Dr. Giovanni Peri and Dr. Kevin Shih published a paper entitled "STEM Workers, H1B Visas and Productivity in US Cities." The paper was produced as part of the project Temporary Migration, Integration and the role of Policies (TEMPO) funded by the NORFACE Research Programme: Migration in Europe — Social, Economic, Cultural and Policy Dynamics. It is available through a U.S. portal (<http://eml.berkeley.edu/~webfac/card/laborlunch/peri.pdf>) and a European portal at the website of the Norface Research Programme on Migration, Department of Economics, University College London (http://www.norface-migration.org/publ_uploads/NDP_09_13.pdf). The U.S. version of the paper, which is widely cited by supporters of the H-1B program, is dated January 29, 2013. The European version is dated February 5, 2013.

On page 13 of the European/February 5 version you write:

It is clear that in the 1990's the H1B visas were enough to cover the whole growth in college-educated foreign STEM workers in the US, even accounting for some return. Even more remarkably, H-1B issuances were three times as large as the net increase in college educated STEM between 2000 and 2010. This implies that many foreign STEM workers, including H-1B recipients, must have left the U.S., *while many native STEM workers must have lost their jobs or changed occupations.*

(emphasis added). However, the same section of the American/January 29 version of the paper instead reads:

It is clear that in the 1990's the H1B visas were enough to cover the whole growth in college-educated foreign STEM workers in the US, even accounting for some return. Even more remarkably in the period after 2000 the H1B visas were three to four times as large as the net increase in college educated STEM. This implies that many foreign STEM workers left the US, for other countries or to return in their country of origin.

In other words, in the European/February 5 version you conclude that the H-1B program caused American STEM workers to lose their jobs, but in the American/January 29 version of the paper you omit that conclusion.

Meanwhile, Table 3 on page 35 of both versions of the paper, which contains the data that shows that more H-1Bs were hired from 2000 to 2005 and from 2005 to 2010 than STEM jobs were added to the economy, and which are the basis of the conclusion that American STEM workers lost their jobs, is identical in both versions of the paper.

- a. Why is the conclusion about native STEM workers losing their jobs because of the H-1B program in the European version of the paper and not in the American version?
 - b. Since the European version is dated after the American version is the conclusion about native STEM workers losing their jobs because of H-1B your final statement on the matter?
 - c. Do you or do you not believe that “many native STEM workers must have lost their jobs or changed occupations” because H-1B issuances were so much larger than the net increase in college educated STEM during the 2000-2010 period?
2. Do you believe that the replacement of American workers by H-1B workers, as in the case of Southern California Edison or at Disney, as described by Mr. Perrero during his testimony at the hearing, should be allowed under the H-1B laws?
3. Please say whether you agree or disagree with each of the following statements:
- a. All employers should make a good-faith effort to recruit U.S. workers before hiring an H-1B visa holder.
 - b. All employers should be required to attest before hiring an H-1 visa holder that the hiring of such worker will not result in the displacement a U.S. worker either in the employer's company or at the worksite of an employer where the H-1B worker will be placed.
 - c. Before hiring an H-1B visa holder for a job, an employer should offer the job to any U.S. worker who applies and is equally or better qualified for the job than the H-1B worker.

Question for Mr. Miano and Prof. Hira

RE: “Hacking” of the H-1B Program

Mr. Miano and Professor Hira: According to recent press reports, there is now a growing movement amongst some U.S. employers, universities, venture capitalists, and even some state and city governments, to “hack” the H-1B visa program in order to open up the program to more foreign workers. Each of you touched briefly on this in your testimony.

Would you please expand on your understanding of these schemes to “hack” the H-1B program and how they work?

Question for Professor Salzman

RE: “Shortage” of H-1B Visas

April 1 is the first day on which employers may file H-1B petitions for the next fiscal year. We are already hearing the usual predictions about how the entire supply of 85,000 cap-subject H-1B visas will be used up within just the first few days after April 1. And we will be told that this mad rush for H-1B visas proves that the H-1B cap must be raised significantly in order to meet the great demand. Last year, in a hearing before the Immigration and the National Interest Subcommittee, you disagreed with that analysis with an apt analogy:

You know, on Black Friday, after Thanksgiving, not everybody gets their half-price TV and on Saturday we don't hear about shortages of TV. The H-1B lottery is a 20 percent off sale on labor and not everybody gets their 20 percent off and they're disappointed. I understand that disappointment but I'm not sure it's a shortage. You just cannot find it in the data, can't find it on the streets. You can't find that happening.

Could you please elaborate on your comment and explain why you believe the H-1B lottery is a “20% off sale” on labor?

The “H-1B discount” occurs through several mechanisms and the exact wage savings that is achieved is difficult to accurately estimate; a 20% savings is a reasonable estimate of the combined effect of the large supply of guestworkers (H-1B, L, OPT) used by the IT industry. The savings take the forms of (1) a direct savings of lower pay for a guestworker as compared to a domestic worker; (2) the “chilling effect” of having a large supply of guestworkers that constrains current workers from requesting wage increases or for employers to increase wages to retain workers (i.e., because incumbent workers are easily replaced with the large available supply of guestworkers; (3) replacing older, higher paid workers with younger, lower paid workers. The wage-depressing effects of H-1B and other guestworkers is observed directly (from fieldwork) and from observing no increase in average wage levels for the past 10 to 18 years despite claims of shortages and difficulties in hiring. As a point of comparison, petroleum

engineers were in great demand and the observed starting salaries jumped from \$43,674 in 1997 to \$50,400 in 1999, \$55,987 in 2003, \$61,516 in 2005 (Bureau of Labor Statistics, 2004, 2006), and \$86,220 in 2010 (National Association of Colleges and Employers, 2010). That is, in petroleum engineering, where there was demonstrated high levels of demand by industry, starting salaries doubled.

In contrast, multiple studies show firms pay H-1B workers less¹ (e.g., Matloff, 2013, examining a wage analysis conducted by Kerr (2013) found using a foreign STEM worker led to "...a 17% drop in original wage"; Matloff, 2013; 225) and that firms using H-1B workers have lower average payroll costs.² The combined effect is difficult to precisely calculate, but an average payroll savings of 20 percent over the past decade is a conservative estimate.

The most compelling evidence that firms view the H-1B program as labor discount program comes from the firms themselves; they state this quite directly (see Testimony for full quotes and citations)—in 10-K and 20-F statements, firms state that if they are unable to obtain sufficient H-1B visas, the effect will be: "...to replace existing offshore resources with local resources, or hire additional local resources, potentially at higher wages."... "...cost of doing business would increase"....

Interestingly, none of the companies state that they would not be able to find a sufficient number of U.S. workers, just that it would increase costs.

The evidence suggests that the primary use of H-1B program is by offshoring companies and they would be limited in conducting work offshore without sufficient numbers of H-1B workers because of increased costs; the second use of H-1B and other guestworkers is for lower cost labor onshore. Both of these uses have the combined impact of constraining U.S. IT wages; as all studies have shown (even the Brookings study often cited as evidence to the contrary actually reports similar findings³), IT wages have stagnated since the dot-com bust, at about late 1990s levels. Thus the supply of H-1B workers is a direct need for offshore work and lower cost labor, and an additional effect of having a large supply of young, entry-level and early-

¹ Salzman, Hal & Kuehn, Daniel & Lowell, B. Lindsay (2013). Guestworkers in the High-Skill U.S. Labor Market: An Analysis of Supply, Employment, and Wage Trends. *Report*, April 24, 2013

<http://dx.doi.org/doi:10.7282/T379469D>; Lazonick, William, Philip Moss, Hal Salzman, and Öner Tulum (2014) "Skill Development and Sustainable Prosperity: Cumulative and Collective Careers versus Skill-Biased Technical Change" The Academic-Industry Research Network, AIR Working Paper #14-12/01; "Immigration and the tech industry: As a labour shortage remedy, for innovation, or for cost savings?" Norman Matloff *Migration Letters*, Volume: 10, No: 2, pp. 211 – 228; Lazonick, William (2009). *Sustainable Prosperity in the New Economy? Business Organization and High-Tech Employment in the United States*, Upjohn Institute for Employment Research; Costa, Daniel. (2012). STEM labor shortages? Microsoft report distorts reality about computing occupations. *Economic Policy Institute*. Retrieved from <http://www.epi.org/publication/pm195-stem-labor-shortages-microsoft-report-distorts/>.

² "The Effects of High-Skilled Immigration on Firms: Evidence from H-1B Visa Lotteries" Kirk Doran, Alexander Gelber, Adam Isen October 2015; Presented at the American Economic Association/ Allied Social Science Associations January 3-5, 2016, San Francisco, CA.

³ The Brookings reports finding of salaries that are essentially flat since the dot-com crash and the authors observe, "it is likely that the extra supply of foreign-born workers does bring downward pressure on the wages of incumbent workers, as research suggests" (Rothwell and Ruiz, 2013).

Questions for the Record - Grassley
The Impact of High-Skilled Immigration on U.S. Workers

career workers to replace domestic workers, older workers, and generally signal that positions can be easily filled and, through this labor market distortion, hold down average wages (i.e., by paying lower wages, replacing exiting workers directly and through moving the work offshore, and by replacing older workers with younger workers); it is through these mechanisms that the DHS H-1B lottery provides the “Black Friday discount” to the profitable IT industry.

Senator Cruz Questions for the Record for
Dr. Hal Salzman
Professor and Senior Faculty Fellow, Rutgers University
Subcommittee on Immigration and the National Interest
“The Impact of High-Skilled Immigration on U.S. Workers”
Thursday, February 25, 2016

I. Follow-Up on Hearing Testimony

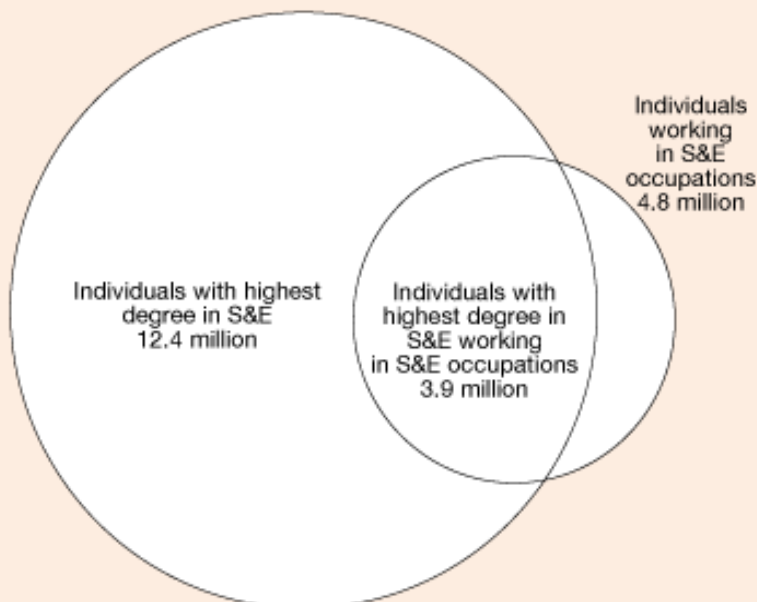
- Supporters of the H-1B visa program claim that the program is essential for modern industry because there are not enough U.S. citizens and/or legal permanent residents who possess the necessary science, technology, engineering, and mathematics (STEM) degrees to staff existing STEM positions.
- It is my understanding, however, that there might not actually be a shortage of advanced degree-holders here in the United States. There has also been little concrete explanation from H-1B visa program supporters as to why the program seems to disproportionately impact domestic IT workers, most of whom were not required to obtain advanced degrees to succeed in their fields.

1. Are there any recent, existing data regarding the number of U.S. citizen and/or legal permanent resident STEM degree-holders in the United States? If the answer is yes, please provide supporting information.

1. If we examine the entire workforce, of all incumbent workers currently employed, a recent study by the U.S. Census Bureau finds that of those who have a STEM degree, only 36% are employed in a STEM field (U.S. Census

Highest Degree in S&E and Occupation

Figure 3-10
Intersection of highest degree in S&E and S&E occupation: 2006



SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT) (2006), <http://sestat.nsf.gov>.

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Bureau, 2012; the report states 25% but they include social scientists; we have reanalyzed the data and excluded social scientists to arrive at 36%). This is consistent with the National Science Foundation’s analyses of field of degree and occupation. The figure above shows the NSF analysis of degree holders and occupation, showing less than a third of science and engineering degree holders are in a science or engineering occupation. Although some portion of the STEM degree holders who are not in a formal STEM job are no doubt working in jobs utilizing their STEM education, the evidence suggests there is still a very large supply of STEM educated workers available to STEM industries if there were demand for them. The evidence does not reflect a deficit in the number of STEM graduates in the workforce or in our current annual production rates of STEM graduates.

- 2. If there are recent, existing data regarding the number of U.S. citizen and/or legal permanent resident STEM degree-holders in the United States, are there also data regarding the employment level of such STEM degree-holders? If the answer is yes, please provide supporting information.**

See above

- 3. In the event recent, existing data show high levels of unemployment among U.S. citizen and/or legal permanent resident STEM degree-holders, please explain industry’s primary rationale for the current expansive use of the H-1B visa program.**

Using unemployment as a measure of supply/demand for STEM degree-holders is not a particularly useful indicator of demand for STEM workers, or available supply. STEM degree holders comprise 17% of all four-year college graduates (and much smaller fraction of the entire workforce) and are a high-performing group; a highly selective group. Thus, they have a good set of desired characteristics as compared to the overall population (hard work, persistence, achievement) and are thus highly “employable” throughout the economy. That is, a STEM graduate unable to find a STEM job is still very employable outside of STEM fields. The above statistics indicate that most STEM degree-holders in the workforce have found non-STEM employment, either because they did not seek STEM employment, because they could not find STEM employment, and/or because they were laid off from a STEM job. Thus unemployment/employment statistics of STEM workers only indicate their relative “employability,” not their availability for STEM employment (i.e., low unemployment rates among STEM workers may only indicate that, once laid off, they

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are able to find job elsewhere, whether it is mowing lawns or moving into management).¹

Their primary rationale for using H-1B and other guestworkers, at least as stated in their SEC statements, are to lower costs (see Testimony of March, 2015 and February 2016 for excerpts).

4. Please provide any relevant information that can help explain why the H-1B visa program has such a disproportionately negative impact on IT workers.

The H-1B and other guestworker programs displace U.S. workers (see Testimony) and constrain wages by providing an “H-1B labor discount.” The “H-1B discount” occurs through several mechanisms and the exact wage savings that is achieved is difficult to accurately estimate; a 20% savings is a reasonable estimate of the combined effect of the large supply of guestworkers (H-1B, L, OPT) used by the IT industry. The savings take the forms of (1) a direct savings of lower pay for a guestworker as compared to a domestic worker; (2) the “chilling effect” of having a large supply of guestworkers that constrains current workers from requesting wage increases or for employers to increase wages to retain workers (i.e., because incumbent workers are easily replaced with the large available supply of guestworkers; (3) replacing older, higher paid workers with younger, lower paid workers. The wage-depressing effects of H-1B and other guestworkers is observed directly (from fieldwork) and from observing no increase in average wage levels for the past 10 to 18 years despite claims of shortages and difficulties in hiring. As a point of comparison, petroleum engineers were in great demand and the observed starting salaries jumped from \$43,674 in 1997 to \$50,400 in 1999, \$55,987 in 2003, \$61,516 in 2005 (Bureau of Labor Statistics, 2004, 2006), and \$86,220 in 2010 (National Association of Colleges and Employers, 2010). That is, in petroleum engineering, where there was demonstrated high levels of demand by industry, starting salaries doubled.

In contrast, multiple studies show firms pay H-1B workers less² (e.g., Matloff, 2013, examining a wage analysis conducted by Kerr (2013) found using a foreign STEM worker led to “...a 17%

¹ For example, see: “Is the hot tech job market leaving its veterans behind?” Katie Johnston Globe Staff March 06, 2016 <https://www.bostonglobe.com/business/2016/03/05/tech-job-market-hot-but-older-workers-struggle/775HPU2OYc5i0Jhr3THTqM/story.html>

“Bob Beaupre, who lives near Worcester, has found that his 21 years of experience are working against him. Since being laid off in June from his \$90,000-a-year tech support engineer job at Oracle Corp., Beaupre, 46, has applied for hundreds of positions, with no luck. the meantime, he has had to sell his house in Sutton and do handyman work to get by. He’s also not hopeful about finding another decent job in tech, and recently accepted a part-time position at Home Depot for \$11 an hour. “I’m almost tempted to just buy a lawn mower and start mowing lawns,” he said.”

Also in the Boston area, EMC expects large job cuts: “EMC hints at big job cuts in 2016” Curt Woodward Globe Staff December 31, 2015 <https://www.bostonglobe.com/business/2015/12/31/emc-hints-big-job-cuts/rZF9qqzzFbHEH0wIRyUssM/story.html>

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drop in original wage”); Matloff, 2013; 225) and that firms using H-1B workers have lower average payroll costs.³ The combined effect is difficult to precisely calculate, but an average payroll savings of 20 percent over the past decade is a conservative estimate.

The most compelling evidence that firms view the H-1B program as labor discount program comes from the firms themselves; they state this quite directly (see Testimony for full quotes and citations)—in 10-K and 20-F statements, firms state that if they are unable to obtain sufficient H-1B visas, the effect will be: “...to replace existing offshore resources with local resources, or hire additional local resources, potentially at higher wages.”... “...cost of doing business would increase”....

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² Salzman, Hal & Kuehn, Daniel & Lowell, B. Lindsay (2013). Guestworkers in the High-Skill U.S. Labor Market: An Analysis of Supply, Employment, and Wage Trends. *Report*, April 24, 2013

<http://dx.doi.org/doi:10.7282/T379469D>; Lazonick, William, Philip Moss, Hal Salzman, and Öner Tulum (2014) “Skill Development and Sustainable Prosperity: Cumulative and Collective Careers versus Skill-Biased Technical Change” The Academic-Industry Research Network, AIR Working Paper #14-12/01; “Immigration and the tech industry: As a labour shortage remedy, for innovation, or for cost savings?” Norman Matloff *Migration Letters*, Volume: 10, No: 2, pp. 211 – 228; Lazonick, William (2009). *Sustainable Prosperity in the New Economy? Business Organization and High-Tech Employment in the United States*, Upjohn Institute for Employment Research; Costa, Daniel. (2012). STEM labor shortages? Microsoft report distorts reality about computing occupations. *Economic Policy Institute*. Retrieved from <http://www.epi.org/publication/pm195-stem-labor-shortages-microsoft-report-distorts/>.

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- 5. In your opinion, would U.S.-based STEM companies face a domestic labor shortage if the H-1B visa program, as it is currently constituted, were curtailed or eliminated?**

There is no credible evidence to support such claims. See Testimony on layoff numbers and rates.

- 6. In your opinion, what impact would curtailment or elimination of the H-1B visa program have on the wages or earning power of U.S. citizen and/or legal permanent resident STEM degree-holders?**

If companies had to use the free market to hire from the U.S. pool of workers, they would likely have to raise wages, though it is unclear how much since the U.S. has a large supply of STEM degree holders and graduates; it is likely that firms would do more to retain workers and be less likely to fire older workers (i.e., workers over age 35).

- It is my understanding that there is what is known as the university exemption from the cap on the number of H-1B visas that can be issued in a given fiscal year under current federal law.

- 7. Please provide additional details about how the university exemption works.**

John Miano has in-depth expertise on this area.

- 8. Are you aware of any fraudulent use of the university exemption? If the answer is yes, please provide supporting information, including any known instances of universities’ fraudulent use of the H-1B visa program.**

The most egregious case of recent is the Wright State University, though there are likely others as well.

“Wright State ‘poster child’ for abuses of worker visa program” Josh Sweigart *Dayton Daily News* Oct. 4, 2015
<http://www.mydaytondailynews.com/news/news/local-education/wright-state-poster-child-for-abuses-of-worker-vis/nns2P/>

“A new kind of visa ‘creativity’” *Science* Beryl Lieff Benderly Oct. 7, 2015
<http://www.sciencemag.org/careers/2015/10/new-kind-visa-creativity>

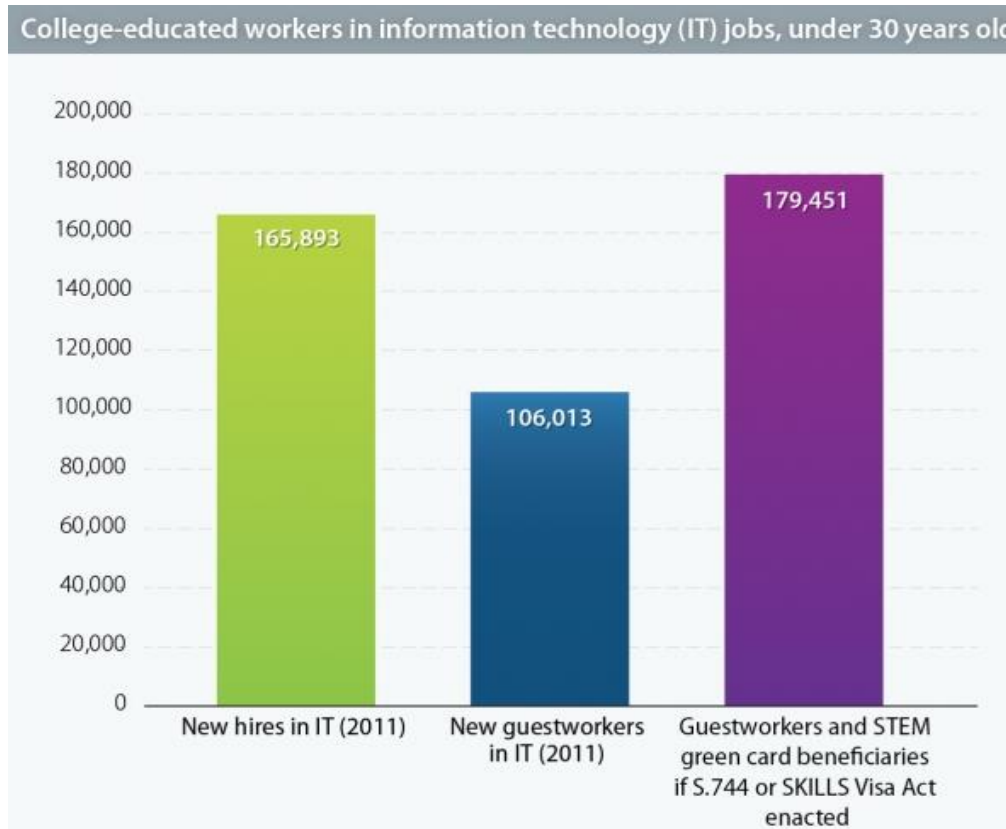
II. Additional H-1B Visa Program-Related Legislation

Senator Cruz Questions for the Record for
Dr. Hal Salzman
Professor and Senior Faculty Fellow, Rutgers University
Subcommittee on Immigration and the National Interest
“The Impact of High-Skilled Immigration on U.S. Workers”
Thursday, February 25, 2016

- Some of our colleagues here in the Senate have introduced legislation entitled the “Immigration Innovation Act” (otherwise known as the “I-Squared Act”).

9. In your opinion, would the I-Squared Act have a negative impact on the employment level of domestic STEM workers, including domestic IT workers?

As the figure below shows, increases of the magnitude proposed would supply guestworkers for more than 100 percent of the industry’s hiring needs. Such increases can only exacerbate current trends of stagnant wages and poor career opportunities in IT and STEM fields. In particular, the likely impact of large-scale guest worker programs, which stand to hurt all STEM graduates, will have especially negative impacts on minorities who are underrepresented in high-tech, as well as other, recently arrived foreign-born workers who compete most with newcomers.



- 10. In your opinion, would the I-Squared Act have a negative impact on the wages or earning power of domestic STEM workers, including domestic IT workers?**
Yes – see above.

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III. General Question

11. Are there any other points or issues that were not explored (or sufficiently explored) during the hearing that you would like to bring to the Subcommittee’s attention?

YES: The impact of “Green Cards for Grads” and other provisions that provide automatic green cards or other “fast track” to residency for foreign student STEM graduates. This is an overlooked but potentially dramatic provision in many bills that would not only undermine the labor market but also put pressure on colleges to lower program quality and to discriminate against US students, as has already occurred in the California State University system. See p.19ff, my Testiomony from March 17, 2015. As stated in that Testimony (p.23):

In summary, any expansion of foreign student entry into the U.S. labor market in IT is likely to exacerbate rather than remediate the current, negative impacts of large guestworker flows on the labor market. Further, and very importantly, it is likely to exacerbate what appears to be growth of a college and university business model of providing entry into the U.S. labor market that would otherwise be difficult if not impossible to obtain; the provisions of the I-Squared legislation could expand the numbers of Masters degree programs that are primarily offering degrees as the cost of obtaining a green card, easy entry into the U.S. labor market, and perhaps a moderate level of skill and education. The evidence suggests the impact would be depressing wages, as is currently reflected by the current lack of a wage premium for H-1B Masters degree holders and growth of degree programs that exclude U.S. students, either indirectly (as evident in the colleges with high concentration of F-visa graduates) or directly, as in the case of California State University-East Bay, which stopped admitting state residents into its graduate programs and admitted almost exclusively international students into its computer science program (which is about 90 percent international students).⁵ This was the University’s explicitly stated strategy to increase revenue to make up for budget deficits by excluding state residents who would pay lower tuition rates than out-of-state and international students. As the chart above suggests, this appears to be a business model pursued by a number of colleges and universities across the country.

⁵ <http://heather.cs.ucdavis.edu/Archive/CSUEastBay.txt>