

Chad Sparber Responses to 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

Thank you, Senator Grassley, for your thoughtful questions. I appreciate the opportunity to answer them.

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 people 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?

These are great questions, senator. I do not believe that “many native STEM workers must have lost their jobs” to H-1B or other foreign STEM workers. I do believe many native STEM workers changed their occupations, and did so in an advantageous way.

At the risk of sounding pedantic, let me begin by emphasizing that the article in question was not “published” by the outlets cited. Rather, those outlets disseminated “working paper” versions of our research. Working papers are by nature works-in-progress that form an important part of the regular research process in economics. We conduct preliminary research, share it with colleagues and others, and solicit feedback in order to help us focus on key questions of interest and examine whether results are robust – that is, whether they withstand various methodological challenges. Working papers regularly change from one iteration of the research process to the next. An article does not become “published” until it undergoes a thorough peer review by a reputable academic journal. In this sense, the article in question was published in the July 2015 issue of *Journal of Labor Economics* – the premiere outlet for work in this field. With the exception of possible typos or supplementary material, this published article represents our official version, and is the one that should be referenced.

On questions regarding the passage itself: The statement is not a “conclusion” but rather a list of possibilities worth examining. I would strongly advise against using simple summary statistics (like those in Table 3) to “conclude” anything. Such statistics are best used to motivate rigorous analysis.

In this context, the statement and its accompanying summary statistics were meant to convey that flows of H-1B STEM workers are quite large and therefore important to study. The data also implies that there are outflows of STEM workers too. Before conducting rigorous empirical analysis, a non-exhaustive list of *possible* manifestations of these outflows include that H-1B workers return home after a temporary US stay, native-born Americans become unemployed, or native-born Americans move into non-STEM occupations. It is precisely due to this ambiguity that formal empirical tests are necessary! When we conduct that systematic analysis, we find no evidence that, *on average*, inflows of foreign-born STEM workers are displacing native-born Americans. Instead, we see robust evidence for American productivity and wage gains.

In the unpublished working paper versions of our work, we demonstrate that inflows of foreign STEM workers cause Americans to move into occupations requiring more creative and problem-solving skills that often, though not always, pay higher wages than traditional STEM occupations. We previously documented this type of behavior in a 2011 paper published in *Industrial Relations* titled, “Highly-Educated Immigrants and Native Occupational Choice.” Given the need to focus on narrow research questions, coupled with results that were already well established in the literature, our published “STEM Workers, H-1B Visas, and Productivity in US Cities” article focused on average wage, employment, and productivity effects. Again, we find no evidence that foreign STEM workers cause net native-born American employment losses. We find strong evidence that they cause wage and productivity gains.

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?

What happened to Mr. Perrero and his colleagues is shameful. Namely, that they were terminated from their positions and then coerced to train their replacements. *The New York Times* reported that Toys “R” Us engaged in similar activity. Importantly, I think it is equally shameful for a firm to coerce a terminated worker to train an *American* replacement who is willing to perform the job at a lower cost.

The Southern California Edison case might be more complicated. A December 15, 2015 *Daily Caller* article reported,

“In December 2011, an employee shot and killed two supervisors in the company’s information technology (IT) department. Following the incident, Southern California Edison commissioned a management report that produced scathing conclusions, citing ‘a fundamental lack of leadership’ and ‘dysfunction.’ *Computerworld* reported, ‘Some of the [Southern California Edison] employees say the outsourcing move is linked to a 2012 report that found fault with the IT management culture.’”

One of the few unfortunate realities of our dynamic economic system is that it involves difficult firm restructuring decisions that sometimes lead to structural job loss. I have great empathy for anyone who is unemployed. I think we should help people who have lost their jobs. But those questions are fundamentally about helping Americans who are suffering. And those questions are larger than and separate from questions about the H-1B program, other skilled foreign worker programs, or firm hiring practices. I would be hesitant to tell firms who they can and cannot hire, but would be in favor of assisting Americans when in need.

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.

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I would need to clarify these questions. Do I think that the federal government should expand the Department of Labor and/or create a new bureaucratic entity to evaluate the skills of all Americans any time a firm is considering hiring a foreign worker? Do I think that an employer wishing to promote an existing H-1B worker to a new position within the firm should have to file an affidavit stating that no other coworker had superior skills? Do I think that an entrepreneur backed by venture capital wishing to establish a small firm in Iowa City should have to demonstrate that no American would be as effective in implementing his/her own ideas?

The implied proposals underlying these questions sound impossible at best, and potentially catastrophic at worst. We tend not to see this level of government intervention in market-based economies. The flexibility of the US labor market is a strength of our economy. I would not want to put that strength in jeopardy.

Please allow me to cite an example from my own experience hiring workers – a process that my economics department colleagues and I perform nearly every year.

The National Science Foundation reports that the unemployment rate of PhD economists is 0.8%. Approximately 1200 new economics PhD degrees are awarded every year in the United States, 40% of which go to Americans. 2800 new job openings for PhD economists are advertised each year. It is exceedingly difficult to hire workers – let alone American ones – in this type of environment.

We begin a job search by looking for talent: people who will be effective teachers and have promising research programs. A candidate's birthplace or citizenship status is largely irrelevant, though those characteristics might correlate with important factors such as familiarity with liberal arts instruction. The market moves quickly. We invite candidates to interview on-campus in mid-January. If we do not secure an accepted job offer by mid-February, then there is a high likelihood that the search will have failed. This implies that we are left with an unfilled position. This implies that we have lost hundreds of man-hours that could have been spent on more productive activities such as teaching or scholarship. This implies reduced morale and heightened depression at the thought of searching again the following year. I am troubled by the prospect of slowing this process down, making it more cumbersome to hire talent, and diverting attention away from productive activity in order to satisfy a bureaucratic requirement. Even if such laws are not *intended* to burden employers, colleagues, and job candidates like mine, I am quite certain that they will.