

Is There Really a Shortage of Skilled Workers?

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Skill shortage versus aggregate demand shortage as the cause of high unemployment

As of mid-summer 2013, more than four years since the start of the recovery from the Great Recession, the unemployment rate was 7.4 percent. This is far higher than the highest unemployment rate of the early 2000s downturn, 6.3 percent. Nevertheless, 7.4 percent is a substantial improvement from the high of 10.0 percent in October 2009. Is this reason to celebrate? Unfortunately, no. It turns out that most of the improvement has happened for all the wrong reasons, with the vast majority of the decline in the unemployment rate being due to workers dropping out of, or never entering, the labor force due to weak job opportunities (N.B. jobless workers are not counted as being unemployed and in the labor force unless they are actively seeking work).

The Congressional Budget Office estimates that if we were at full employment, the labor force would now number about 159.2 million, but the actual labor force is just 155.8 million. That means there are 3.4 million “missing workers” – jobless workers who would be in the labor force if job opportunities were stronger, but in the current environment are not actively seeking work and are therefore not counted. If those missing workers were in the labor force looking for work, the unemployment rate would be 9.4 percent instead of 7.4 percent. In other words, more than five-and-a-half years since the start of the Great Recession, the labor market remains extremely weak by historical standards.

One potential explanation for the extremely weak US jobs recovery is “skills mismatch,” whereby workers do not have the skills for the jobs that are available. There is a sizeable literature on whether a skills mismatch is a driver of today’s weak jobs recovery, and the strong consensus is that the weak labor market recovery is not due to skills mismatch (or any other structural factors). Instead, it is due to weakness in aggregate demand. For example, a 2012 paper by Edward Lazear (chief economist for George W. Bush) and James Spletzer states:

“An analysis of labor market data suggests that there are no structural changes that can explain movements in unemployment rates over recent years. Neither industrial nor demographic shifts nor a mismatch of skills with job vacancies is behind the increased rates of unemployment. ... The patterns observed are consistent with unemployment being caused by cyclic phenomena that are more pronounced during the current recession than in prior recessions.” (Lazear et al, 2012)

Despite the clear consensus among researchers that the unambiguous problem is a shortfall of aggregate demand, there is a strong public narrative that today's jobs recovery is weak because workers don't have the right skills. Why? One reason may be psychological – it's easier to blame workers for lack of skills rather than face the fact that millions cannot find work no matter what they do because the jobs simply are not there. That in turn makes it easy for stories and anecdotes about employers who cannot find workers with the skills they need to circulate unscrutinized.

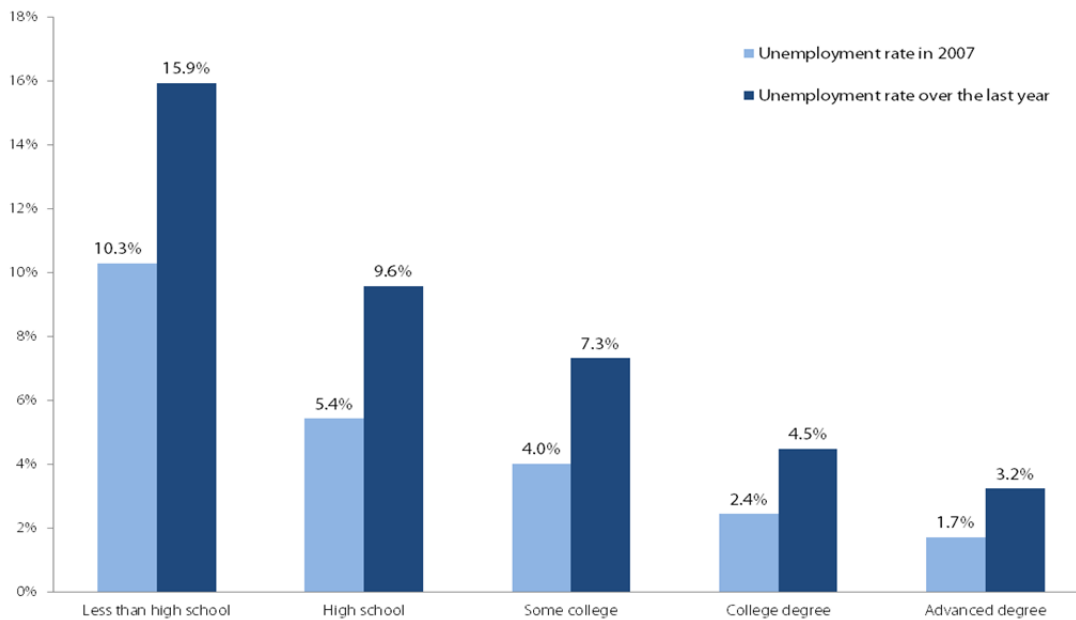
Another reason is political, since the cause of high unemployment is vitally important for policy. If high unemployment is due to workers not having the right skills, then the correct policy prescription is to focus on education and training, and macroeconomic policy to boost aggregate demand will not reduce unemployment. Policymakers and commentators who are against fiscal stimulus have a strong incentive to accept and propagate the myth that today's high unemployment is because workers lack the right skills.

The evidence

The key insight unpinning the evidence presented here is that if today's high unemployment were a problem of mismatches or a skills shortage, we would expect to find some types of workers or sectors or occupations of meaningful size now facing tight labor markets relative to before the recession started. The "signature" of skills mismatch is shortages relative to 2007 in some consequentially-sized groups of workers.

Figure 1 shows the unemployment rate by education, both in 2007 and over the last year (the 12-month period from August 2012-July 2013). It shows that workers with higher levels of education currently face – as they always do — substantially lower unemployment rates than other workers. However, they too have seen large percentage increases in unemployment. Workers with a college degree or more still have unemployment rates that are more than one-and-a-half times as high as they were before the recession began. In other words, demand for workers at all levels of education is significantly weaker now than it was before the recession started. There is no evidence of workers at any level of education facing tight labor markets relative to 2007.

Figure 1: High unemployment at all levels of education relative to 2007

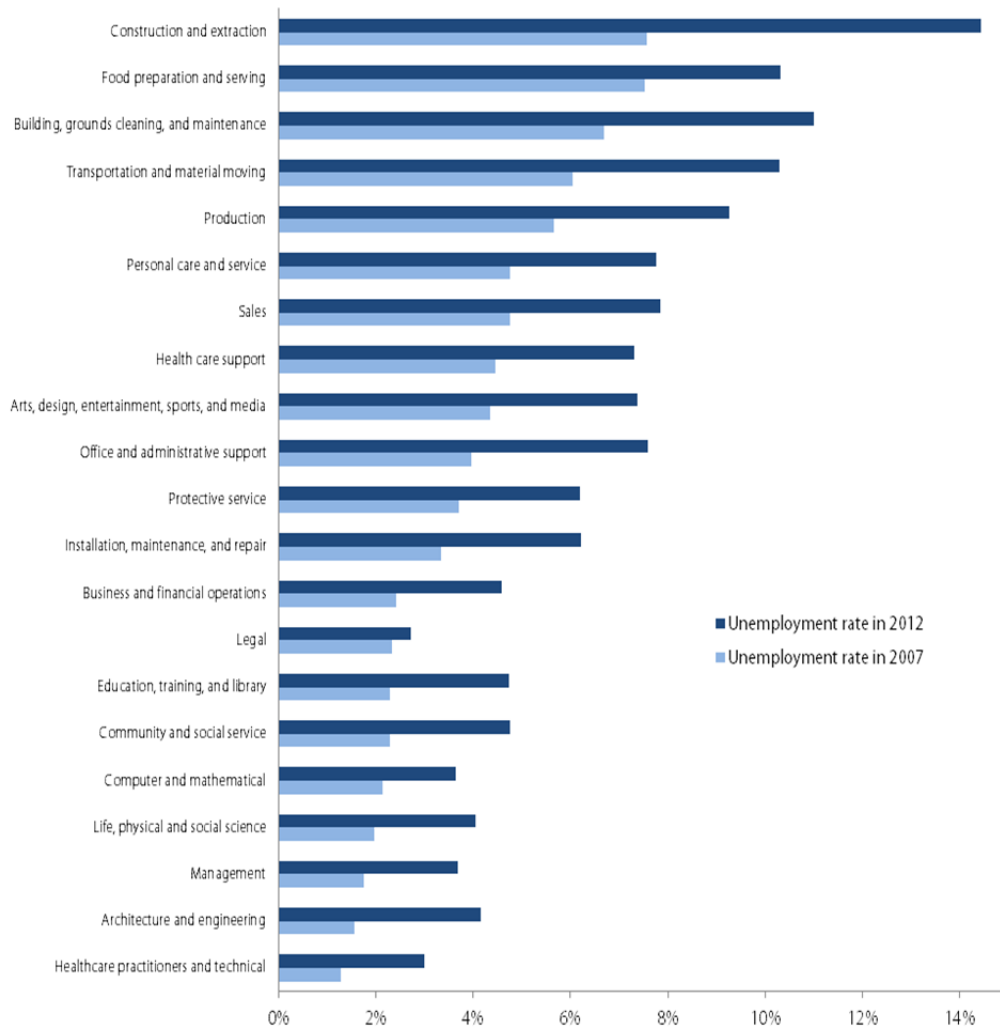


Note: Due to the fact that the data are not seasonally adjusted, 12 month averages are used. The last 12 months consist of data from August 2012 to July 2013.
Source: Author's analysis of Current Population Survey microdata

Figure 2 shows the unemployment rate by detailed occupation in 2007 and 2012. As is always the case, some occupations in 2012 have higher unemployment rates than others. However, the unemployment rate in 2012 in all occupations is higher than it was before the recession. In every occupational category demand for workers is lower than it was five years ago. The signature of a skills mismatch – workers in some occupations experiencing tight labor markets relative to 2007 – is plainly missing.

Another valuable source for diagnosing the cause of the current sustained high unemployment is the data on job openings. Figure 3 shows the number of unemployed workers and the number of job openings by industry. Again, if high elevated unemployment were due to skills shortages or mismatches, we would expect to find some sectors where there are more unemployed workers than job openings, and some sectors where there are more job openings than unemployed workers. However, unemployed workers dramatically outnumber job openings in all sectors. There are between 1.4 and 10.5 times as many unemployed workers as job openings in every industry. Even in the industry (Finance and Insurance) with the most favorable ratio of unemployed workers to job openings, there are still 40 percent more unemployed workers than job openings. In no industry does the number of job openings even come close to the number of people looking for work.

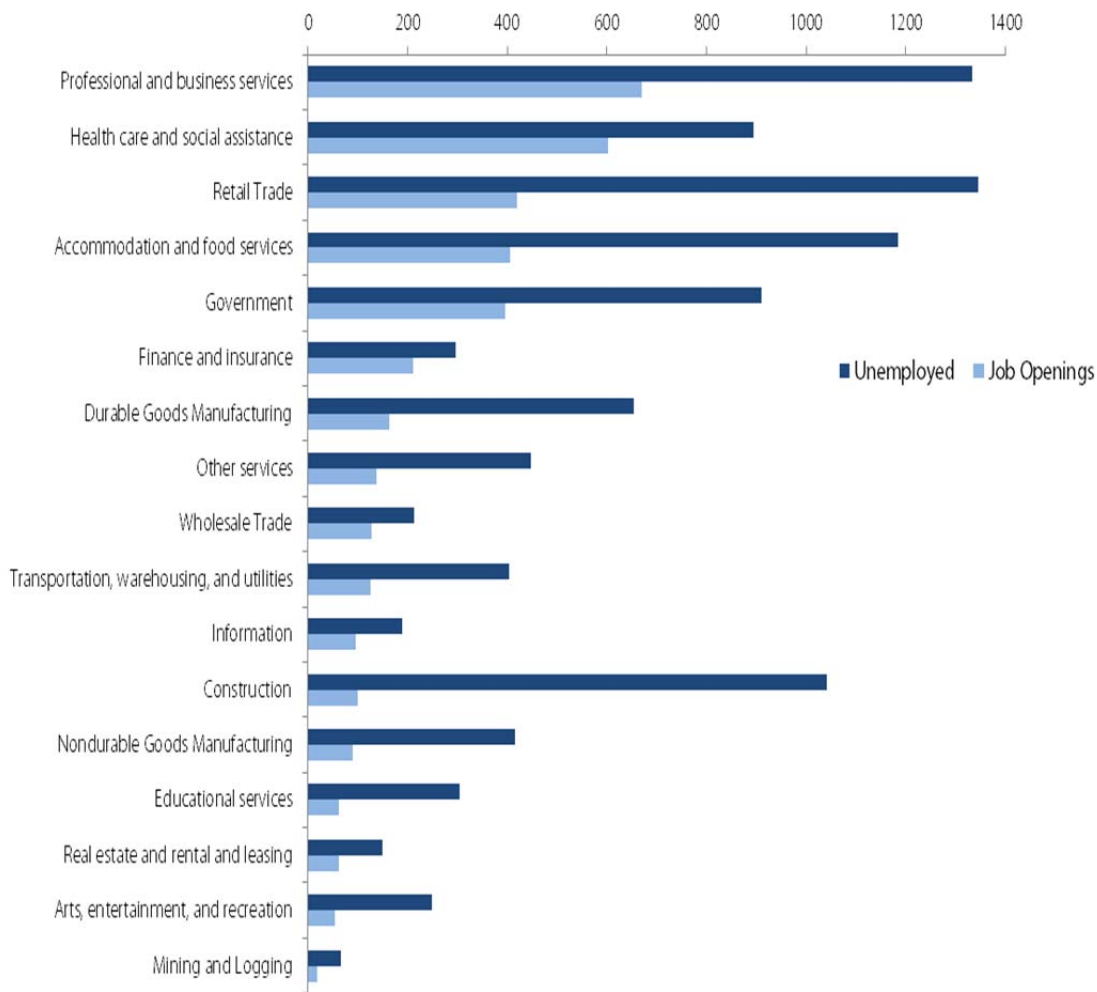
Figure 2: High unemployment in *all* occupations relative to 2007



Source: Authors' analysis of basic monthly Current Population Survey microdata

Furthermore, a job opening when the labor market is weak often does not mean the same thing as a job opening when the labor market is strong. There is a wide range of “recruitment intensity” with which a company can deal with a job opening. For example, if a company is trying hard to fill an opening, it may increase the compensation package and/or scale back the required qualifications. Conversely, if it is not trying very hard, it may hike up the required qualifications and/or offer a meager compensation package. Perhaps unsurprisingly, research shows that recruitment intensity is cyclical: it tends to be stronger when the labor market is strong, and weaker when the labor market is weak (Davis, et al, 2012). This means that when a job opening goes unfilled when the labor market is weak, as it is today, companies may very well be holding out for an overly qualified candidate at a very cheap price.

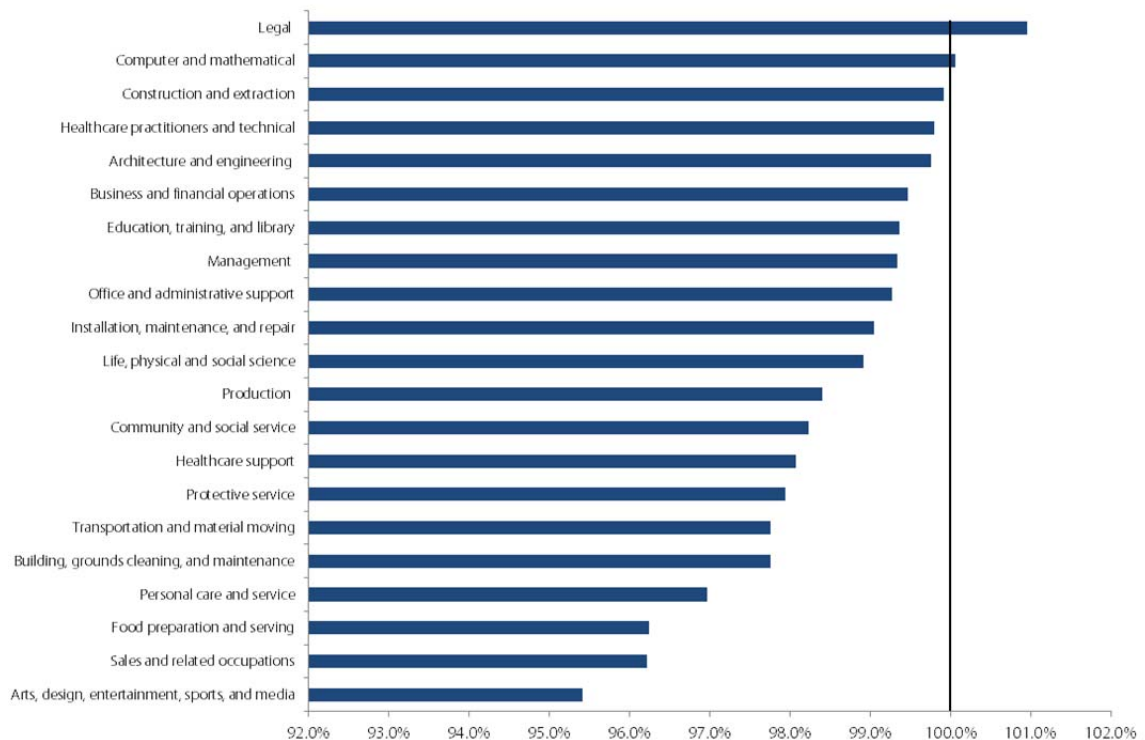
Figure 3: Unemployed vastly outnumber job openings across the board
 Unemployed and job openings, by industry (in thousands)



Note: Due to the fact that the data are not seasonally adjusted, these are 12-month averages, July 2012–June 2013.
 Source: Author's analysis of data from the Job Openings and Labor Turnover Survey and the Current Population Survey

Another way to approach the question of whether or not the labor market is suffering from skills mismatch is to note that if employers really did have enough demand for their goods and services to need to hire new people but couldn't find suitable workers, they would be ramping up the hours of the workers they have. Figure 4 shows average weekly hours in 2012 as a percentage of average weekly hours in 2007 by occupation. Only in legal occupations are hours meaningfully longer than they were before the recession began, though the average workweek in legal occupations increased by less than one percent in those five years. Given that in almost all occupations the average weekly hours of existing workers are lower now than they were before the recession started, it is difficult to see how employers are seeing demand go unmet because they can't find people who can do the work.

Figure 4: No evidence of hours being ramped up
Weekly hours in 2012 relative to 2007, by occupation



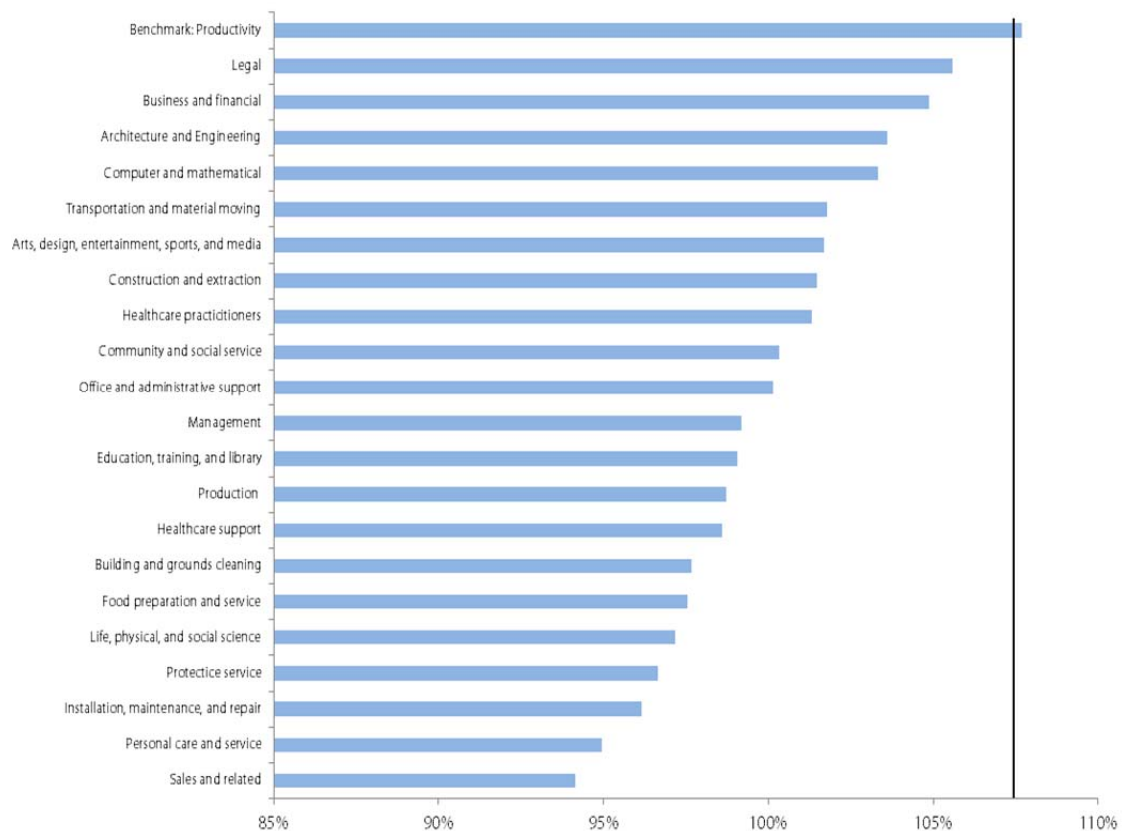
Source: Author's analysis of basic monthly Current Population Survey microdata

Another place to look for evidence of a skills shortage is in wage trends. If skills are in short supply, the simple logic of supply and demand implies wages should be increasing substantially in occupations where there is a shortage of skilled labor. In other words, employers who face shortages of suitable, interested workers should be responding by bidding up wages to attract the workers they need. Figure 5 shows average hourly wages in 2012 as a percentage of average hourly wages in 2007 by occupation, along with productivity growth over this same period as a benchmark for the rate at which average wages should grow. In no occupation is there any hint of wages being bid up in a way that would indicate tight labor markets or labor shortages. In fact, in no occupation have average wages even kept pace with overall productivity growth over this period. This pattern of productivity growth outstripping wage growth across the board is a signature of weak demand for workers caused by shortage of demand for goods and services, not skills mismatch.

In sum, no matter how you cut the data, there is no evidence of skills shortages as a major cause of today's elevated unemployment. The evidence on wages, hours, job openings, and unemployment across demographic groups, industries, and occupations, all confirm broad-based weakened demand for workers.

Figure 5: No evidence of wages being bid up

Real average hourly wages in 2012 relative to 2007, by occupation



Source: Author's analysis of Bureau of Labor Statistics' Current Population Survey microdata

What about other structural shifts aside from skills mismatches? One to consider is “housing lock” whereby problems in the housing market may mean individuals are locked into communities in which jobs are scarce. However, like the skills mismatch myth, housing lock has been rigorously investigated and rejected as a key driver of today’s persistent high unemployment (Farber, 2012; Lazear, et al, 2012; Rothstein, 2012).

Another argument is that today’s high unemployment is due to the unemployment insurance (UI) extensions in the Great Recession and its aftermath. However, this too has been rigorously investigated and UI extensions have been found to have had at most a very modest impact on the amount of time people remain unemployed. Moreover, the small increase in unemployment duration due to UI extensions is primarily due to the fact that unemployed workers who receive UI are less likely to give up looking for work, because an active job search is a requirement for receiving benefits. This is a positive feature since keeping workers attached to the labor market may increase the likelihood they will eventually find work rather than entering the pool of hidden unemployment made up of discouraged workers. Of course, the effects of extended UI benefits are likely to disappear when those benefits expire, as they have already begun to do (Daly, et al, 2012; Farber, et al, 2013; Rothstein, 2012).

Conclusion: it's aggregate demand, stupid!

There are simply no structural changes capable of explaining the pattern of sustained high unemployment over the last five years. What we have, instead, is an aggregate demand problem. The reason we are not seeing robust job growth is because businesses have not seen demand for their goods and services pick up in a way that would require them to significantly ramp up hiring. The right policies for the present moment are, therefore, straightforward. More education and training to help workers make job transitions could help some individuals, but it's not going to generate demand, so it will not solve the unemployment crisis. Instead, Washington policymakers must focus on policies that will stimulate demand. In the current moment this can only be reliably accomplished through expansionary fiscal policy involving such measures as large-scale ongoing public investments and the reestablishment of state and local public services that were cut in the Great Recession and its aftermath.

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