Help Wanted
What Looming Labor Shortages Mean for Your Business

Mature economies are in the midst of a perfect economic storm: baby boomers are retiring and labor productivity is growing at a very weak rate. Together, these two factors are contributing to historically low growth in total production capacity in mature economies. This trend has remained off the radar of most businesses, even though, in our opinion, it is perhaps the most important economic development affecting mature economies. In the five years from 2010 to 2015, labor productivity in the nonfarm business sector in the United States increased by just 0.5 percent on average, and the labor force by just 0.4 percent. For perspective, since World War II the sum of these two numbers had never dipped below 2 percent—until 2015, when it was just 0.9 percent.

With the labor supply growing at such a slow rate, demand for workers doesn’t need to be high to match or even outpace supply. Over the past two years, The Conference Board has predicted tighter labor markets and even labor shortages in mature economies. These forecasts are already becoming a reality in some advanced economies, including Germany, Japan, the United Kingdom, and the United States.

Despite operating in an environment of low growth in the labor supply, few mature economies have reached full employment since the end of the global recession in 2009. On the contrary, while the United States and the United Kingdom have enjoyed a sustainable recovery, struggling economies have experienced one or even two recessions. Our projection is that most European economies will not reach full employment by the end of the year, and some countries—most notably Spain and Greece—will not reach it for several years to come.
## Occupational Hazard?
Some fields are at a higher risk for labor shortages than others.

### HEALTH
The health care field will continue to experience exceptionally fast employment growth—particularly for physical therapy aides and assistants. Employers could mitigate some labor shortages by increasing immigrant labor.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Labor Shortage Index*</th>
<th>Projected Percent Gap Between Labor Demand &amp; Supply</th>
<th>Typical Years of Education Required</th>
<th>Percent Immigrant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Therapy aides/assistants</td>
<td>100%</td>
<td>13 yrs +37%</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Physicians/surgeons</td>
<td>98</td>
<td>20 yrs +17%</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Registered nurses</td>
<td>94</td>
<td>16 yrs +17%</td>
<td>15%</td>
<td></td>
</tr>
</tbody>
</table>

Average across all occupations:

- Average Years of Education Required: 13 yrs
- Average Percent Immigrant: 15%

### STEM
Most occupations are experiencing high employment growth but also a relatively high number of entrants to fill vacancies. Mathematical science jobs are growing exceptionally fast. Computer occupations are at lower risk due to the relative youth of the field, which enjoys a large number of new entrants and a small share of workers age 50 and older.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Labor Shortage Index*</th>
<th>Projected Percent Gap Between Labor Demand &amp; Supply</th>
<th>% Teleworking</th>
<th>% Immigrant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematical science</td>
<td>99%</td>
<td>21% +21%</td>
<td>7%</td>
<td>16%</td>
</tr>
<tr>
<td>Engineers</td>
<td>78%</td>
<td>6% +6%</td>
<td>4%</td>
<td>21%</td>
</tr>
<tr>
<td>Computer</td>
<td>54%</td>
<td>1% +1%</td>
<td>9%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Average across all occupations:

- Average % Teleworking: 5%
- Average % Immigrant: 15%

### SKILLED LABOR
Despite slow employment growth, many jobs in skilled trade labor will experience sizeable demand-supply gaps. These fields tend to attract relatively few younger workers and have a large number of exiting retirees.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Labor Shortage Index*</th>
<th>Projected Percent Gap Between Labor Demand &amp; Supply</th>
<th>Probability of Computerization</th>
<th>% Immigrant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant / system operators</td>
<td>96%</td>
<td>22% +22%</td>
<td>73%</td>
<td>6%</td>
</tr>
<tr>
<td>Rail transportation</td>
<td>94%</td>
<td>26% +26%</td>
<td>85%</td>
<td>6%</td>
</tr>
<tr>
<td>Machinists</td>
<td>90%</td>
<td>24% +24%</td>
<td>64%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Average across all occupations:

- Average Probability of Computerization: 64%
- Average % Immigrant: 14%

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Note: Labor shortage index and its sub-indices shown as percentile rankings. 100 percent for a given occupation means that it faces a higher shortage risk than all other occupations.

For countries that have reached full employment such as Germany, Japan, the United States, and the United Kingdom, tight labor markets are already a problem for employers. The massive retirement of baby boomers will only exacerbate labor issues over the next 15 years or so. We believe that few trends, if any, will have as much impact on businesses as the tightening labor markets. Now is the time for senior executives to understand the implications of a job shortage and to start thinking about strategies that could mitigate risk.

**What You Need to Know**

- The risk of labor shortages varies significantly across industries and occupations.
- Controlling labor cost without compromising on labor quality is becoming a daunting challenge.
- Labor supply constraints are likely to lower overall economic growth during this period.
- Downward pressures on corporate profits will intensify.

**The risk of shortages varies significantly across industry and job type**

In the United States, two types of occupation groups are at an especially high risk of labor shortages in the coming years: health care jobs and skilled trade labor.

The health care industry is at high risk for shortages because of the rapidly growing demand for health workers. And combined with the industry’s already high share of labor cost to revenue, these shortages will have an especially large impact on the bottom line.

We identify skilled trade labor such as machinists and plant operators as a group of occupations at a high risk of labor shortages in the coming decade. A significant share of the current workers in skilled trade labor will retire in the coming years, and relatively few younger workers want to pursue a career in these occupations. In addition, few immigrants are in these jobs, and, unlike countries such as Germany, the education system in the United States is ill-equipped to add significantly to the pool of skilled trade labor. Businesses will have to be proactive and creative in solving this problem on their own or in partnerships with training and educational institutions.

While much of the public discussion about labor shortages focuses on computer- and science-related jobs, we expect demographic trends to have less of an impact on this sector compared to most other high-skilled occupations. To begin with, from a demand-supply gap perspective, most computer and science occupations will have many new entrants and, especially in computers, few retirements. And if shortages do occur, businesses that hire computer workers have many more options to resolve labor issues: teleworking, offshoring, and visa-worker programs.
The states that are at risk for labor shortages today...

In some states—including those that suffered from housing crises, such as Florida, Nevada, and Arizona—unemployment rates remain high and are unlikely to experience labor shortages anytime soon.

At the other end of the spectrum, the resource-rich states like North Dakota and Texas, have low unemployment rates, which suggests that tight labor markets already exist there. But that could change: the large drop in oil prices over the last 18 months or so is starting to push unemployment rates higher.

Number of 3–17-year-olds per 50–64-year-olds

Aggregate measure of unemployment rate, underemployment, and marginally attached gaps by state, 2015

Source: Bureau of Labor Statistics; calculations by The Conference Board
Controlling labor cost without compromising on labor quality is becoming a daunting challenge

When labor markets tighten, it becomes harder to find qualified workers, more workers switch to other jobs, and wage growth, while still low, accelerates. In the next five years we project acceleration in wage growth in most countries and higher growth in countries with tight labor markets.

Labor supply constraints may lower economic growth

In mature economies, long-term growth projections are becoming more pessimistic as both productivity and the labor force continue to grow very slowly. It is hard to see how the labor force could grow fast enough to keep up with demand without a significant increase in the number of immigrants. Unfortunately, the policy paralysis and uncertainty of reform reduces the chance of a major increase in the flow of immigrants in the foreseeable future. In the United States, trend growth for the national economy is projected to be about 1.6 percent in the coming decade, which is about half the rate in the post-war era.

Businesses are accustomed to operating in some geographies experiencing long-run decline in economic activity. In the next 10–20 years, the number and size of such areas is likely to expand, with the economies of entire states, regions, and even some countries shrinking over time.

Downward pressures on corporate profits will intensify

On top of the strong dollar that has been reducing overseas profits for American companies over the past year, the combined forces of weak revenue, low productivity growth, and accelerating labor costs are likely to further squeeze profits.

What Can Business Leaders Do?

While strong structural forces will challenge profitability in the coming decade in countries with tight labor markets, individual companies can do a lot to reduce future risk. The first step is to understand that this is not something we see very often. Most current executives likely have never operated in an extended period of tight labor markets—the most recent US example of which was 15 to 18 years ago, and, before that, the late 1960s. As a result, most companies have no strategy in place to deal with a broad and prolonged labor shortage across the economy.

Looking a few years ahead is essential for success. The main cause of looming labor shortages will be the retirement of the baby boomers. This very predictable factor makes forecasting easier for organizations which can simply study age distributions among their workers in different types of jobs. Businesses that plan in advance for demographic shifts in their workforces will gain a competitive advantage by avoiding higher labor costs and unfilled jobs.
Pass the cost on to the consumer. The bottom line will not entirely fund higher labor costs—some will be passed on to the consumer in the form of higher prices, although we do not project dramatically higher inflation as a result.

Expand automation and improve productivity. While labor productivity growth has been extremely slow in recent years, in an environment of declining profits, the pressure to become more efficient will intensify. For that reason, we expect labor productivity to accelerate moderately in the coming decade. Luckily, some of the skilled trade labor occupations, in which strong shortages are expected, are more likely to be automated than most occupations.

Move where populations and the economies grow faster. Historically we see high correlation between population growth, employment, and economic growth. Over time employers are moving to where the population is growing and vice versa. The decision to relocate operations and sales efforts is complex, but perhaps now there is an additional incentive to shift more operations from tight, slow-growing mature economies to emerging countries. The population and economic growth in emerging Asia is projected to be much higher than in mature economies in the coming decade. But the sheer quantity of workers may not make these countries attractive locations for multinational companies. In emerging Asia, labor shortages are not primarily a matter of demand and supply gaps in the sheer number of workers, but rather the number of workers who possess the right skills to work in a global modern corporate environment.

We have found that skill preparedness of workforces in emerging Asian countries varies considerably, with some surprising outliers. For example, some countries, such as Vietnam, appear much more prepared than their GDP per capita suggests. We also find that while the demand for skills in emerging Asia is not that much lower than in mature economies, the gap in skill preparedness is still huge and may take a while to overcome, with some countries moving in the right direction (Nepal, Bangladesh, and Cambodia) and others not (Pakistan and Myanmar).

Labor market tightness varies within the United States as well. In some states—including those that suffered from housing crises, such as Florida, Nevada, and Arizona—unemployment rates remain high and thus are unlikely to experience labor shortages anytime soon. Yet, in the resource-rich states like North Dakota and Texas, unemployment rates are low, which suggests that tight labor markets already exist there after years of booming economies. However, the large drop in oil prices over the last 18 months or so is changing this picture. Although labor markets are still tight in these states, unemployment rates are on the rise, especially in oil-related occupations and industries. This could be the harbinger of overall weakness in the oil-producing states.

Future labor shortages will also vary depending on the age distribution within each state. In many states in the Northeast and Midwest, the number of people who will exit the labor force in the coming years is much larger than the number of youth who will enter it. In some states in the Southwest, the exact opposite is true.
Increase remote working. As the labor market tightens, firms may find it advantageous to expand remote-working options to employ talent in other parts of the country or to offer working from home as a benefit to help retain workers. Remote working is already a solution in many occupations in the United States: 22 percent of web developers and 12 percent of computer programmers work primarily from home. According to a 2011 Ipsos survey, in mature economies such as the United Kingdom, Australia, and Sweden, the share of telecommuting is higher than in the United States, and in several developing countries, such as India and Mexico, it is much higher.

Tap the untapped. Several populations are significantly underrepresented in certain types of jobs. Women in engineering and immigrants in skilled trade labor are two examples. One of the most obvious ways to counter future labor shortages on a large scale is to attract skilled immigrant labor, especially for occupations that are in highest demand. As recent political campaigns around the world make clear, growing anti-immigration sentiment and rhetoric in many mature economies complicates this potential solution.

Provide incentives to delay retirement. As labor market conditions tighten, employers are likely to offer more incentives for older workers to stay to avoid skill shortages. But this approach doesn’t work for all occupations, particularly those that are physically demanding and difficult to perform into older age.

Shift to contingent workers. The gig economy is still a very small part of the labor market, but this workforce does offer another potential solution to shortages. Although evidence of its meaningful expansion is scarce in official statistics, other, private sector sources point to a very rapid growth. The contingent workforce will grow, and the question is by how much and in which types of jobs.

Recruit discouraged workers. During and after the Great Recession, the labor force participation rate of the working-age population significantly declined. That figure still has not recovered as millions of people remain out of the workforce. Tapping that potentially qualified and willing population could help reduce labor shortages.

These solutions and perhaps others will help businesses weather the labor supply drought. But customizing a strategy by industry and geography will be critical for success. There is no one labor shortage story—and no single solution. Employers should research the demographics of their workforce and know which of their locations will be most acutely affected by tight markets. For those who do, surprises will be fewer and opportunities to plan ahead great.

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