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# Worker Skills and Job Quality

BY DAVID NEUMARK AND ROB VALLETTA

Some observers have argued that the nation's high unemployment rate during the current recovery stems partly from widespread mismatches between the skills of jobseekers and the needs of employers. A recent San Francisco Federal Reserve Bank conference on workforce skills considered evidence that employers have had difficulties finding workers with appropriate skills in recent years. However, these mismatches do not appear to be much more severe than in the past. Overall, the conference proceedings suggested the U.S. economy can still produce good jobs for workers at a variety of skill levels.

*This* Economic Letter *summarizes papers presented at the conference "Creating and Employing a Skilled Work Force: Challenges and Opportunities," November 7, 2011, at the Federal Reserve Bank of San Francisco. Conference papers are available at http://www.frbsf.org/economics/conferences/1111/agenda.php*

The need for a skilled workforce is a perennial issue in any economy. Employers want workers with appropriate skills. Jobseekers want rewarding work that makes good use of their skills. Skill sets are dynamic, adapting to changes in technology and the structure of the economy. The need for such adaptations may have accelerated in the aftermath of the recent recession. During the slow labor market recovery that began early in 2010, job openings have risen more rapidly than unemployment has fallen, raising concerns that mismatches may be growing between the skills of jobseekers and the needs of employers.

This question has important implications for economic policy. Skill mismatches can affect how fast employment can grow and the rate of unemployment that the economy can sustain without igniting inflation. That makes it vital for Federal Reserve policymakers to understand this phenomenon. The San Francisco Federal Reserve Bank's conference on worker skills brought together academics and workforce development professionals to explore the issue and bridge the gap between research and practice. This *Economic Letter* summarizes the presentations and roundtable discussion.

The conference proceedings suggested that current skill mismatches are limited and probably transitory. Existing mismatches appear to reflect the normal movement of workers between shrinking and growing sectors of the economy. Such shifts tend to accelerate during recessions but dissipate as recovery takes hold. Moreover, the likelihood that growing sectors will produce good jobs for skilled workers, and the ability of our educational system to provide skills that are in demand, appear to be stronger than is commonly believed.

## Four papers on skills and job quality

Estevão and Tsounta (2011) seek to determine the magnitude of skill mismatches in the United States after the Great Recession. Most analysts agree that the high post-recession unemployment rate has a large cyclical component that reflects low demand for labor. The objective of the authors is to estimate the extent of structural unemployment, that is, the component of unemployment that will not dissipate when normal economic growth returns.

Among the leading potential sources of structural unemployment are, one, skill mismatches and, two, geographical mismatches between where jobs are available and where jobseekers are concentrated. To estimate how much each of these factors contributes to the unemployment rate, Estevão and Tsounta develop a statistical model to explain unemployment variation among states over time. They consider business cycle and housing market conditions in each state. The authors also measure skill mismatch by looking at worker educational attainment in each state, and the industrial structure and educational content of jobs.

Estevão and Tsounta's results imply that structural unemployment accounts for about 1 to 1.75 percentage points of the roughly 5.5 percentage-point increase in the unemployment rate between 2006–07 and the recent peak in late 2009. They attribute about two-thirds of the structural unemployment increase to the effects of a depressed housing market, which makes it hard for many homeowners who are under water on their mortgages to relocate. Skill mismatch accounts for only about 0.5 percentage point of the structural unemployment increase and is likely to dissipate over time, as it typically does after a recession. Although the effects of skill mismatch in the current labor market may be limited, a 0.5 percentage point increase represents nearly one million workers. Thus, even at this relatively low level, reducing skill mismatch may be a valid public policy concern.

Holzer et al. (2011) highlights a long-run increase in the importance of selected skills in giving U.S. workers access to what are identified as good jobs. The authors use a massive data set that covers most workers and businesses in 12 states from 1992 to 2003. They identify employers that pay unusually high wages, which represents good jobs. Workers who earn unusually high wages relative to the wages paid for similar workers in their current firms are identified as good workers. This method of classification allows analysis of changes over time in the sorting of workers among employers.

Holzer et al. shows that, for less-skilled workers, sources of good jobs shifted away from the manufacturing sector toward the retail, administrative, construction, and health-care sectors from 1992 to 2003. Nonmanufacturing sectors account for a rising share of low-skill workers who earn above-average wages. Most importantly, this work suggests that it has become increasingly difficult for low-skill workers to land high-paying jobs. In other words, high pay is increasingly a function of one's skills rather than one's job, implying that high-paying jobs that do not require advanced skills have grown increasingly scarce. Moreover, other evidence suggests that soft job skills, such as the ability to communicate effectively, have become increasingly important, contrary to the common perception that technical skills are paramount. The study indicates that encouraging workers to acquire skills remains important to help them find better jobs, even if skill mismatch is limited in the current labor market.

Cardiff, LaFontaine, and Shaw (2011) also ask where the good jobs are, but focus more narrowly on the retail sector. The authors examine the well-known decline in manufacturing employment and rise in retail employment. Based on popular perception, this trend epitomizes the replacement of good jobs with bad jobs. However, by analyzing a detailed data set covering every Texas retail business from 1990 through 2006, the authors question this perception. Specifically, they identify a subset of the retail industry they characterize as "modern retail," which consists of businesses that deliver products in innovative or cost-effective ways. For example, modern retailers may use effective supply-chain management or be unusually successful in marketing. Modern retailers represent a relatively limited portion of the sector, but the authors show that their share is growing rapidly.

What does this imply for good versus bad jobs? Despite the typically low wages paid in retail, Cardiff, LaFontaine, and Shaw find that high-wage jobs exist in this sector, particularly for first-line supervisors and managers. Moreover, relative educational levels of retail workers have risen over the past two decades. In the early 1990s, retail workers were much less educated than manufacturing workers. By 2010, educational attainment in the two sectors had largely converged. At all educational levels, retail pay is still substantially lower than in manufacturing. But, in the retail sector, education has an economic return that more or less corresponds to its return in manufacturing. Overall, the authors present evidence that the growth of the retail sector and the decline of manufacturing do not necessarily imply the disappearance of good jobs or elimination of payoffs to workers for acquiring traditional skills.

Furchtgott-Roth, Jacobson, and Mokher (2009) stress the ways community colleges can enhance skills and highlight how these institutions can do better. The authors use a large data set tracking 135,000 Florida students from the high school class of 2000. They match high school and post-secondary education with detailed earnings data from the unemployment insurance system. These data illuminate the associations between grades in school, degrees, courses of study, and labor market experiences. Community colleges are particularly interesting because they account for nearly half of U.S. undergraduate enrollments and provide disadvantaged groups a key route for upward mobility.

The study underscores the well-known relationship between educational attainment and earnings, including at the community college level. The authors add a new wrinkle by examining which community college subject areas have the largest earnings payoffs. They find that health care is a high-return field of study. Business, protective services, and trade and industry specializations offer moderate returns. Several other fields, including arts and sciences, are low return. The authors argue that, based on existing curriculum requirements, some students could switch from low-return to higher-return fields without substantially increasing their course loads or difficulty. Thus, there may be viable opportunities for community college students to acquire skills that provide better earning potential.

These opportunities appear to be untapped in part because students may not have information about earnings prospects in different fields. Thus, community colleges could place greater emphasis on career counseling that provides information about the relative returns in those fields. In addition, community colleges face financial obstacles to expanding course offerings in high-earnings fields. In some of these fields, instruction is more expensive. But community college funding is based on enrollment rather than the relative costs of different fields of study. That points to a need to create more rational incentives for community colleges to expand programs in high-return fields.

## Discussion and common themes

The conference featured a roundtable discussion of the event's themes by four individuals with extensive professional backgrounds in workforce development: Rob Black, chair of Workforce Investment San Francisco and director of the Golden Gate Restaurant Association; Mike Hannigan, chair of the Oakland Workforce Investment Board and president of an office supply company; Phyllis McGuire, a vice chancellor at City College of San Francisco, who oversees the school's Office of Workforce and Economic Development; and Jack Mills of the Insight Center for Community Economic Development, a national research, consulting, and legal organization. These experts said they didn't see new sources of skill mismatch. Instead, they emphasized the long-standing importance of providing low-skill workers in urban areas access to well-designed training programs and good jobs.

They also said that it is important to establish close working relationships between community colleges and local business communities. This point reinforced the finding of Furchtgott-Roth, Jacobson, and Mokher (2009) about how expansion of community college guidance programs can help students acquire skills that qualify them for existing job opportunities. The discussants also noted the benefits of targeted training programs that focus on putting low-skill workers in stable jobs in specific industries rather than seeking placements more generally throughout the local labor market.

## Conclusions

The recent San Francisco Federal Reserve Bank conference on workforce skills examined labor market changes that may have accelerated during the Great Recession. These changes may have increased mismatches between employer needs and worker skills. In general, we find that this doesn't appear to be the case. Estimates of the extent of skill mismatches in recent years indicate that it has been limited and is likely to dissipate. Moreover, the conference's research presentations and a panel of workforce development specialists did not identify a noticeable increase in mismatches in recent years. Thus, concerns about growing skill mismatches may be overblown. On the other hand, successful integration of low-skilled workers into the workforce represents a continuing problem. Conference participants offered useful ideas on how to meet this challenge, stressing the roles of community colleges and well-designed training programs.

*David Neumark is Chancellor's Professor of Economics and Director of the Center for Economics & Public Policy at UC Irvine and a visiting scholar at the Federal Reserve Bank of San Francisco.*

*Rob Valletta is a research advisor in the Economic Research Department of the Federal Reserve Bank of San Francisco.*

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