The Mismatch between Job Openings and Job Seekers

By Maria E. Canon and Mingyu Chen

The 2007-09 recession had a severe impact on the U.S. labor market. During the recession, more than 89 million employees lost their jobs, while fewer than 82 million were hired. The unemployment rate spiked to a 27-year high of 10.1 percent in October 2009. Since then, the labor market has experienced a slow recovery; the unemployment rate still stood at 9.1 percent in May.

In the 2010 annual report of the Federal Reserve Bank of St. Louis, David Andolfatto and Marcela Williams suggested that search “frictions” might explain why the unemployment rate remained high even while job openings appeared to have increased during the recent recovery. One type of friction that they mentioned relates to employer-employee pairings. Each job and worker has idiosyncratic characteristics that make some job-worker pairings more productive than others. As employers and workers usually cannot anticipate where the best pairing is located, they must expend time and resources to search for the best matches.

Mismatch can be interpreted as a poor match between the skills and location required to fill vacant jobs and the skills and geographic preferences of unemployed workers.

Skill Mismatch

Economists Ayşegül Sahin, Joseph Song, Giorgio Topa and Giovanni Violante recently derived mismatch indexes from an economic model. In their framework, the aggregate labor market is comprised of many small labor markets, categorized by skill levels or working locations (e.g., industries and MSAs). Sahin and others define mismatch as the distance between the observed allocation of unemployed workers across sectors and the “optimal” allocation. The optimal allocation of unemployed workers is the allocation that gives the distribution of vacancies in the economy, would occur if there were free movement of workers across labor markets. The authors’ indexes allow them to quantify not only the level of mismatch but also the proportion of the increase in unemployment that can be attributed to mismatch.

Using five industries as divisions of the aggregate labor market, Sahin and her co-authors found that the friction of unemployed workers misallocated increased by 10 percent points during the 2007-09 recession; the friction then dropped but remained at a level higher than its pre-recession level. But this increase in mismatch can explain only between 0.4 and 0.7 percentage points of the increase in unemployment.

Geographic Mismatch

The 2007-09 recession was accompanied by a steep decline in housing prices. Some economists and commentators have argued that the housing crisis may slow down geographic mobility of job applicants. Economists Fermata Ferrera, Joseph Gyourko and Joseph Tracy concluded from past research that negative equity significantly reduced the mobility of homeowners. Unemployed workers who owe more than what their home is worth are less likely to apply for and accept positions that are in places that would require them to sell their homes.

If this is the case, then a geographic mismatch is likely to occur and lead to prolonged high unemployment rates. Economist Sam Schueller-Wohl, however, points out that Ferrera and his co-authors systematically dropped from their data some observations of homeowners with negative equity who move, which resulted in a misleading conclusion. Schueller-Wohl found that negative equity does not reduce mobility of homeowners; a finding that is consistent with what is suggested by the empirical results from Sahin and others. Sahin and her co-authors found that geographic mismatch, measured at census region level, was very low throughout the recession and has had no impact on the recent dynamics of U.S. unemployment.

Conclusion

Although mismatch has recently raised a lot of attention among economists, it can be a potential explanation for the increase in unemployment, the existing literature does not find evidence of it being the principal source. The newly developed measure of mismatch indicates a rise in skill mismatch (across industries) but only associates it with a minor increase in the unemployment rate. The geographic mismatch (across census regions) does not have a significant effect on the labor market.

One potential alternative explanation for the persistently high unemployment rate is the extended hiring time. Although job vacancies have been rising, the increased number of unemployed workers makes those openings more competitive. Anecdotal evidence suggests that, since the last recession started, companies have had a difficult time deciding who the “best” candidates are; therefore, the hiring time is extended.

According to an article in The Wall Street Journal, a survey conducted recently by the Corporate Executive Board indicated that positions that typically took two months to fill before the recession are sometimes taking four times longer to fill. Even with qualified applicants on hand, recruiters might be holding out for better candidates.

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ENDNOTES

1. Data are from the Job Openings and Labor Turnover Survey. Job openings are measured by the number of employees separated from payroll, and number of hires is measured by the additions to payroll.

2. See Padoa-Schioppa for a collection of papers on findings of mismatch in the 1970s.

3. December 2007 is the starting date of the 2007-09 recession. Vacancy share of an industry is the number of openings in that industry over the total number of job openings in the U.S. Lost employment share of an industry is the number of jobs lost in that industry over the total number of jobs lost in the U.S.

4. Their definition of mismatch builds on the findings of mismatch in the 1970s.

REFERENCES


