Labour Market Matters

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Special points of interest:

- Relative increase of lower-skill jobs during economic downturns results in over-qualification among workers who were educated to do more cognitive-based jobs.
- Researchers find that the "duration elasticity" of UI - or the impact of UI benefits on the duration of an unemployment spell - varies with local labor market conditions.

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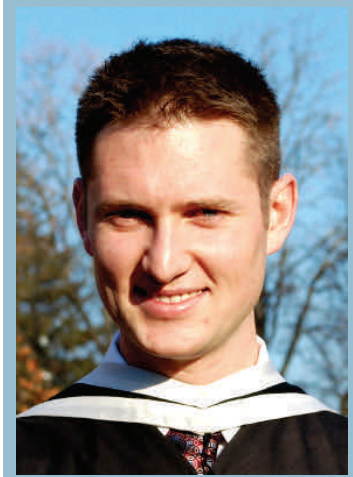

Fraser Summerfield (University of Guelph)

Economic downturns can exacerbate educational mismatch and overqualification in the labour market

Examples of educational mismatch and overqualifcation in the labour market can often be found in the same office building – the clerical worker with a bachelor's degree reporting to a manager with a high school education – as an example. Some have argued that mismatch in general is a result of poor economic conditions; however, a paper entitled ***"Labor Market Conditions, Skill Requirements and Education Mismatch"*** (CLSRN Working Paper no.134) by CLSRN affiliate Fraser Summerfield (University of Guelph) provides evidence that the pattern of increased overqualification during economic downturns is partially due to relative changes in the type of jobs available at these times.

Using worker data from the Labour Force Survey (LFS) and occupational data from the Occupational Information Network (O*NET) database, Summerfield generates measures of cognitive and manual skill requirements, and finds that job creation during economic downturns favours manual skill jobs – a finding which compliments previous findings that workers tend to be re-assigned to lower-skill tasks within firms during downturns.[1] Workers may have a higher probability of being overqualified during a downturn, not only because there are fewer jobs available overall, but also because the relative share of available jobs changes in favour of manual skill jobs during this time.

The study shows that the relative increases in manual skill requirements are consistent with changes, both in newly filled jobs and empty job vacancies. An increase in the availability of manual skill jobs then results in overqualification among workers who were educated to do more cognitive-based jobs. Some reasons for this relative demand shift could include reduced investments in R&D because of market uncertainty, attempts by firms to exploit a larger unemployment pool to increase their ability to hire high skill workers at a lower cost, government stimulus packages which promote labor intensive manual skill jobs, unwillingness to fill high paying cognitive skill jobs during periods of economic uncertainty, and/or assigning greater responsibilities to lesser paying occupations in a downturn.[2] Because firms can change their demand for skill faster than workers can upgrade or change the skill they supply (via their education) the change in vacancies subsequently affects job matches and leads overqualification.

Using various measures of overqualification, the study found that a one percentage point increase in local unemployment rates coincides with an average increase in the probability of being overqualified of 0.1-0.4 percentage points. In the context of the Canadian population, this amounts to the population of a city such as Kingston becoming overqualified from a 4% increase in the unemployment rate. This effect, however, was largely attributable to underlying shifts in the type of available jobs. For some measures of overqualification, the skill requirement changes account for up to half of the unemployment rate effect.

Previous research has found a robust penalty for each year of education beyond the requirements of a job, with wage losses of 8% per year for the US and Canada. The negative implications of mismatch also include lower job satisfaction, and increased turnover costs for firms following from the increased mobility of mismatched workers. Summerfield also shows that these changes in the skill requirements for jobs can explain a substantial component of the overqualification wage penalty. As manual skill jobs pay less than cognitive skill jobs, and because manual skill requirements are positively correlated with economic downturns, job characteristics may be one reason for the wage penalty to overeducation. This study shows that mismatch, and in particular overqualification, arises partially because of cyclical changes in the type of jobs available.

[1] Devereux, Paul. 2000. "Task Assignment over the Business Cycle." Journal of Labor Economics 18: 98-124.
[2] Ibid

"Moral Hazard" problem with Unemployment Insurance (UI) greater in periods of low unemployment

Unemployment Insurance (UI) helps individuals transition through difficult economic situations such as periods of unemployment, and underemployment. While UI provides insurance to households by helping them "smooth consumption" during a period of unemployment, studies have found evidence of moral hazard– raising UI benefits encourages longer unemployment spells. However, the previous literature has not distinguished between changes in benefits when labour market conditions are good, and changes in benefits when labour market conditions are poor. If either the consumption smoothing benefit or the moral hazard cost of UI depends on labour market conditions, this may imply that optimal UI benefits should respond to shifts in labour demand. A study entitled ***"Should Unemployment Insurance vary with the Unemployment Rate? Theory and Evidence"*** (CLSRN Working Paper no. 104) by CLSRN affiliates Kory Kroft (University of Toronto) and Matthew Notowidigdo (Booth School of Business, University of Chicago) examines how optimal UI benefits vary over the course of the business cycle by estimating how the moral hazard cost and the consumption smoothing benefit of UI vary with the unemployment rate.

Using data from the Survey of Income and Program Participation (SIPP) in the U.S., the researchers find that the "duration elasticity" – or the effect of benefits on the duration of an unemployment spell – varies with local labor market conditions; specifically, the duration elasticity is statistically significantly lower when the state unemployment rate is relatively high with one standard deviation increase in the unemployment rate reducing the magnitude of the duration elasticity by a magnitude of 46 percent. This finding implies that the moral hazard cost is "procyclical" – or greater when the unemployment rate is relatively low. By contrast, the "consumption smoothing" benefit of UI is "acyclical" – or does not vary with the state unemployment rate. Based on these estimates, the researchers conclude UI benefits should vary with the unemployment rate; in particular, their estimates suggest that a one standard deviation increase in the unemployment rate leads to a roughly 14 to 27 percentage point increase in the optimal wage replacement rate.

Kory Kroft
(University of Toronto)

Interestingly, in Canada, EI benefits vary with the local unemployment rate.

"The finding that the 'moral hazard cost' of UI is lower when unemployment is high, is consistent with the idea that there is less of an efficiency loss from reduced job search effort by the unemployed during a recession. The researchers suggest that it is also plausible that the disincentive effects of other government policies may also be lower in times of high unemployment."

While many studies in the past have emphasized the sensitivity of the optimal UI benefit level to the level of risk aversion among workers, Kroft and Notowidigdo suggest that the optimal UI benefit level is equally sensitive to labour market conditions. This sensitivity highlights the value of future work which produces more precise estimates of how the duration elasticity and the effect of UI on consumption drop at unemployment vary with the unemployment rate.

Matthew Notowidigdo
(Booth School of Business, University of Chicago)

The finding that the "moral hazard cost" of UI is lower when unemployment is high, is consistent with the idea that there is less of an efficiency loss from reduced job search effort by the unemployed during a recession. The researchers suggest that it is also plausible that the disincentive effects of other government policies may also be lower in times of high unemployment. For example, if the labour supply response to tax changes is lower during recessions, it may be more efficient to redistribute during recessions. Kroft and several co-authors at Boston University are currently investigating this question.

Endnotes

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