Editorial

Introduction to special issue on overschooling

In its very first issue, the *Economics of Education Review* published an article by Greg Duncan and Saul Hoffman, titled “The incidence and wage effects of overeducation” (Duncan & Hoffman, 1981). This turned out to be a source of inspiration for quite a number of other researchers. The notion of overeducation was not new when Duncan and Hoffman wrote their article. Richard Freeman had already introduced the notion into the economics profession in his study about the overeducated American (Freeman, 1976).

What was so special about Duncan and Hoffman’s article was that it extended the already popular Mincer earnings equation in a simple yet meaningful way. They split attained years of schooling into years of schooling required for the job and the difference between attained and required years. When this difference equals zero there is a proper match, while a positive (negative) difference indicates that the worker is overeducated (undereducated). As it turned out, a substantial number of workers were over- or undereducated, and that returns to the various components of attained schooling differ.

This special issue brings together a survey article on the overeducation literature, a meta-analysis of many different overeducation studies, and six articles with new results.

Hartog’s survey article starts with a critical discussion of the various ways that have been used to measure the required level of schooling. He concludes that the measure based on realized matches (first proposed by Verdugo & Verdugo, 1989) is the least attractive. Then he summarizes the findings of the earnings consequences of overeducation and undereducation. Next, he discusses how these empirical findings can be understood from the perspective of several labor market theories. He considers search theory, human capital theory and assignment theory. In a final section Hartog analyzes comparative statics: what happens to the wage effects of required schooling and over/underschooling when the compositions of jobs (required schooling) and of the workforce (attained schooling) change? An important finding here is that to understand changes in the structure of allocation and earnings, not only changes in mean levels of attained and required education matter, but also the dispersions on both sides of the market matter.

Groot and Maassen van den Brink use data from 25 different overeducation studies to carry out a meta-analysis. In a meta-analysis separate studies serve as the unit of analysis. They find that studies using an overschooling measure based on realized matches give a significantly lower incidence of overschooling than studies that employ another measure. They find no indication of a world-wide increase or decrease of the incidence of overschooling. (Hartog’s survey, however, points to different patterns in different parts of the world: US vs Europe). They also report “true” rates of return (which is a sort of unweighted average from different studies corrected for study characteristics) to different education components. For required education the “true” rate of return is about 12% in the 1990s and 8% in the 1970s and 1980s. For years of overeducation the “true” rate of return equals 2.6% and for undereducation it equals −4.9%.

Very much in the spirit of the original Duncan and Hoffman study, Cohn and Ng analyze the incidence and wage effects of overschooling and underschooling in Hong Kong over the period 1986–1991. It turns out that for both years the incidence of overschooling is about 38% for men and 31% for women, while 28% of the men and 25% of the women is underschooled. Underschooling increases with labor market experience. The pattern of returns to the different schooling components is in line with previous studies. An alternative specification reveals that returns to both adequate schooling and overschooling decrease with experience, while more experienced workers who are underschooled are significantly less hurt by their inadequate schooling level than less experienced workers.

We are proud that this issue also contains an article written by Greg Duncan, jointly with Daly and Büchel. This paper compares the premiums and penalties to overschooling and underschooling for the US at two different points in time (1976 and 1985). In addition, it compares the 1985 results for the US with 1984 results for Germany. Although the US labor market in 1985 differed substantially from that in 1976, and although Germany and the US have very different labor market and school-
ing institutions, the basic patterns of premiums and penalties are very much the same. Furthermore, if anything, the patterns found for the US in 1985 are closer to the results obtained for Germany in 1984 than to the results reported for the US in 1976.

Dolton and Vignoles analyze the incidence and effects of overeducation for the graduate labor market in the United Kingdom. Also for this specific labor market it is found that surplus education gives a lower economic return than required education. Further, for overeducated individuals it turns out that human capital characteristics such as degree class have no impact on earnings. A third finding is that the overeducation premium is not smaller in the public sector than it is in the private sector. All three results are interpreted as evidence that both the human capital supplied by workers as the requirements of the jobs determine earnings, thereby confirming assignment theory. The consequence of this is that it is unlikely that firms respond as rapidly to changes in the supply of skilled labor as neo classical theory predicts.

Mendes de Oliviera, Santos and Kiker use Portuguese data to test two competing hypotheses concerning the impact of overeducation and undereducation. The first is that over- and undereducation may serve as substitutes for other inputs in a person’s human capital bundle. The second hypothesis relates to the impact of technological change which, combined with adjustment costs, may cause undereducation, while at the same time upgrading of hiring standards may mean that new hires are perceived to be overeducated. The empirical findings reject the substitution hypothesis while results are consistent with the technology explanation.

Smoorenburg and Van der Velden use a data set of Dutch school-leavers to study the relation between participation in firm training and the extent of educational mismatches. Mismatches are examined both in terms of field of study and level of education. Overeducated workers are less likely to participate in firm training than workers with a proper match, while workers who are undereducated are no more (or less) likely to participate in such training. Furthermore, school-leavers who hold a job outside their field of study are more likely to participate in training than those who are employed in their “own” field. These results indicate that firm training of young workers is used to bridge gaps between the skills offered and the skills required.

Finally, Vahey studies the returns to overschooling and underschooling using data from Canada. Vahey’s specification is more flexible than the usual specification as it allows the returns to over- and underschooling to differ for different levels of required schooling. This generates some specific insights. More in particular, when men have more schooling than required this is only rewarded when the required level is a bachelor’s degree. Underschooling is, for men only, punished at the lower levels of required schooling. For women, being over-schooled or underschooled makes no difference relative to the earnings of female workers with a proper match.

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References