

PLAIN LANGUAGE SUMMARIES

LITERACY, NUMERACY AND LABOUR MARKET OUTCOMES IN CANADA

SUMMARY BY JAMES E. PAGE

What is this study about?

In this study David A. Green and W. Craig Riddell use Canadian data from the International Adult Literacy Survey (IALS) to investigate the relationship between labour market success and literacy skills. The specific skills measured in IALS were prose literacy, document literacy and quantitative literacy or numeracy. This work was released in March 2001 and was published by Statistics Canada and Human Resources Development Canada in a series called "IALS Monographs".

The authors note that earnings are the most commonly used and widely accepted indicator of a person's success in the labour market because earnings have two components that are both measurable: 'price' (the wage rate) and "quantity" (the number of hours worked per week or the number of weeks worked per year). For this reason the paper focuses on the relationship between literacy and annual, weekly and hourly earnings. The authors explain that this paper does not examine such important labour market outcomes as labour force participation and unemployment because the impact of these forces on literacy was to be the subject of further research by them. However the framework employed takes into account factors that influence labour market outcomes such as educational attainment, gender and experience.

What are the questions addressed by the study?

The authors sought to correlate literacy scores to earnings, and in doing so they found a positive relationship. To identify the reasons for this relationship they examined a number of factors: some that they describe as "observable" (like years of education or educational attainment), as well as some factors they note as "not observable" (like an individual's natural abilities or level of ambition). The observable variables they looked at included age, sex, province of residence, rural or urban, and work experience. They also asked if there were differences in earnings based on levels of skill in the three types of literacy measured by IALS (prose, document and quantitative). They found that the data show that, in Canada, it is not possible to identify the separate effects of the three types of literacy on earnings, and that the average literacy score is the best overall measure of literacy skills.

Why is this study important?

This study is noteworthy because it suggests that there is a direct correlation between literacy and earnings. Green and Riddell concluded that a 10 point increase in literacy skills on the IALS scales would lead to a 3.1% increase in earnings when certain

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variables like educational attainment and labour market experience were held constant. They also found that educational attainment had a greater effect on literacy levels than did labour market experience.

What does the study conclude?

Green and Riddell conclude that, indeed, literacy does have a large effect on earnings and accounts for approximately one-third of the estimated wage 'return to education.' According to their estimates, each additional year of education raises annual earnings by approximately 8.3% and, of that, approximately 3.1 percentage points result from the combined influences of education on literacy and, in turn, literacy on earnings. The results suggest that educational attainment has a much larger impact on literacy than work experience does. Indeed, they suggest both direct and indirect evidence indicates that general labour market experience has little net effect on literacy.

Green and Riddell also say that their results provide some support for the view that literacy skills may play a role in how well immigrants adjust to their entry into the Canadian labour market. However, the authors note, the small number of immigrants in the study sample limits their ability to make stronger conclusions about the relationship between literacy skills and the earnings pattern of immigrants relative to native-born Canadians. They observe that further research is needed in this area.

The co-authors also found that although individual earnings and parents' education are positively correlated, there is little evidence in the Canadian IALS data to suggest that the educational attainment of parents exerts a positive effect on a child's future earnings in adulthood once controls are included for both educational attainment and literacy skills. This suggests, the authors conclude, that the positive association between parents' education and individual earnings arises principally because of the influence of parents' education on the literacy skills and educational attainment of the child.

Labour market outcomes depend on the skills of an individual and the value placed on those skills in the labour market. Green and Riddell concluded that there is some evidence to suggest that both literacy and educational attainment exert a causal effect on earnings that is "substantial in magnitude".

Publication information

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