

Title: Investment in Human Capital and the Output of the Education Sector in Canada

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Abstract

In the System of National Accounts (SNA) for Canada and most other countries, the output of the education sector is measured by the cost of inputs to the education sector. As such, the productivity estimate of the sector is not meaningful indicator of the efficiency with which inputs are used to produce output. In a series of papers, Jorgenson and Fraumeni (1992a and 1992b) conceptualized the output of the education sector as investment in human capital, which can be measured as increments in lifetime incomes of individuals attending schools. This paper will adopt Jorgenson and Fraumeni's human capital approach to measure the output and productivity performance of the Canadian education sector. It will then compare this new output measure with the input-based output measure of the education sector.

To estimate the output of the education sector for the U.S. using the human capital approach, Jorgenson and Fraumeni made a number of simplifying assumptions. First, the quality of education is assumed to be constant over time. Second, the increments in the lifetime income of an individual completing additional year of schooling are all attributed to the effect of education. This paper will relax those two assumptions using the Canadian data from the International Adult Literacy and Skills Survey (IALSS 2003). To estimate the output of the education sector, we will take into account the changes in education quality using the hedonic methods. We will also estimate education output as increments in lifetime incomes due to education that controls for the effect of ability and family background.