

## Literacy and growth: Policy implications of new evidence from PIAAC

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### What's the problem?

Rates of economic growth are below the level needed to support collective economic and social objectives. There is also growing evidence of rapid increases in literacy skill-based wage and income inequality<sup>1</sup>.

### What the new analysis reveals

The new analysis suggests that the impact of literacy skill on rates of inter-country GDP growth have doubled from 1960-1995 (Coulombe and colleagues) to 1970-2010. Specifically, a one-percent increase in literacy skills translates into a three-percent increase in GDP per capita in the steady state i.e. the point at which the economy has absorbed all of the productivity benefits generated by higher literacy levels. This suggests that the skills generated by one additional year of schooling (8 PIAAC points or 3 percent of mean PIAAC skills) lead to a nine-percent increase in GDP per capita.

The analysis also suggests that higher proportions of adults in Level 1 and 2 – the two lowest proficiency levels – reduce GDP and labour productivity growth rates significantly. Interestingly, differences in proportions with high proficiency levels – Levels 4 and 5 – appear to have no impact on comparative growth rates. Countries that manage to raise their average literacy skill levels by improving the literacy skills of low skilled workers will realize even higher levels of downstream growth.

The current analysis finds that differences in the skills of women have had a larger impact on observed differences in growth rates than the skills of men have had.

Importantly, increases in literacy skill have led increases in GDP and labour productivity rather than the reverse where higher levels of wealth might be used to buy more literacy. This finding fits with the results of randomized controlled trials of adult literacy skill upgrading that document significant positive impacts of higher literacy skill of on productivity and safety.

Finally, the Weiderhold and Schwerdt analysis also suggests that the economy reaches a new steady state after an increase in literacy skill averages rather quickly by economic standards. Specifically, the analysis suggests that it would take between six and nine years to close half of the gap to the new economic steady state i.e. the point at which all of the benefits of higher skill levels have all been realized. Recent Canadian research documents that current instructional technology is capable of realizing a 24-point gain in as little as 30 hours of high quality adult literacy instruction, so the instructional technology exists to create meaningful amounts of new literacy skill supply and, thereby, higher rates of economic growth.

Give the potential positive impacts on growth rates, governments should undertake an analysis of what mix of policy measures might generate increases in average literacy skills. These measures include, among others, increasing the skills of youth entering the labour market, upgrading the skills of workers already in the labour market and increasing the intensity of skill use in jobs that serves to reduce literacy skill loss.

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<sup>1</sup> See for example First we Learn to Read, the Canada West Foundation, 2018