



READY FOR LIFE: A SOCIO-ECONOMIC ANALYSIS OF EARLY CHILDHOOD EDUCATION

The Case for Expanding ECE in Atlantic Canada

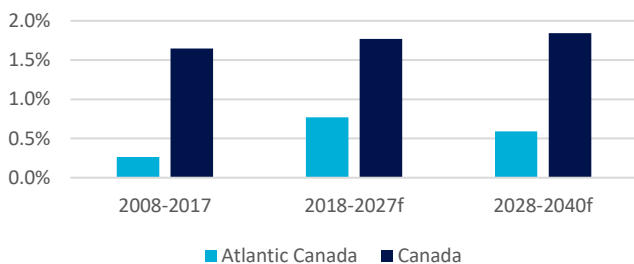
Evidence is continuing to mount that access to quality education should start before most compulsory education programs currently begin. The Conference Board of Canada evaluated the impact of early childhood education (ECE) on Canada’s economy in our report *Ready for Life*. The results show that an expansion in ECE would increase female labour market participation, improve child outcomes (particularly for disadvantaged children), and reduce inequality in Canada. This briefing outlines the results of our Canada wide study and highlights what those findings suggest for ECE investments in Atlantic Canada.

The Challenge

Long-term growth prospects in Atlantic Canada are modest. Stronger economic growth is needed to pay for social priorities, like health care, that face mounting demographic pressures. However, economic growth is projected to average just 0.8 per cent per year over the next two decades.

Economic Growth in Atlantic Canada Continues to Lag Canadian Average

(average annual real GDP growth, f=forecast)

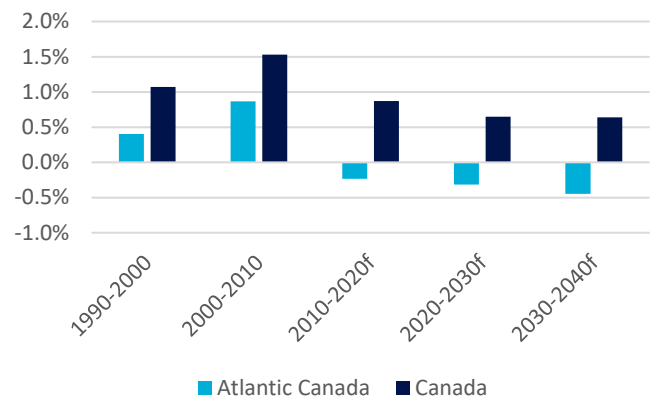


Source: Conference Board of Canada.

Economies expand when their workforce grows, or because they use their workers more productively. In Atlantic Canada, a rapidly aging population is resulting in a shrinking workforce as the baby-boom cohort continues to retire. While increased immigration can help mitigate the labour force decline, it is unlikely to stop it.

Atlantic Canada Faces Declining Labour Force Growth

(average annual labour force growth, f=forecast)



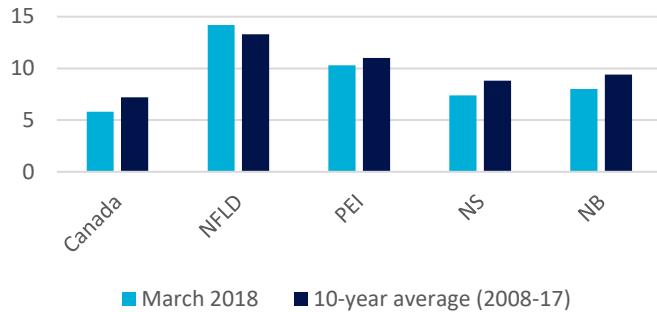
Source: Statistics Canada, Conference Board of Canada.

Despite a falling labour force, unemployment rates remain significantly higher in Atlantic Canada than in the rest of Canada suggesting workers are not being fully utilized. A mismatch in skills could be contributing to the higher unemployment rates.

With a declining labour force, sustaining any kind of economic growth will rely entirely on improvements in productivity or in other words using the available supply of workers more efficiently. But productivity growth has been particularly weak in Atlantic Canada over the last decade, declining by 0.1 per cent per year.

Atlantic Canada Unemployment Rates Show Workers are Not Being Fully Utilized

(unemployment rate, per cent, f=forecast)

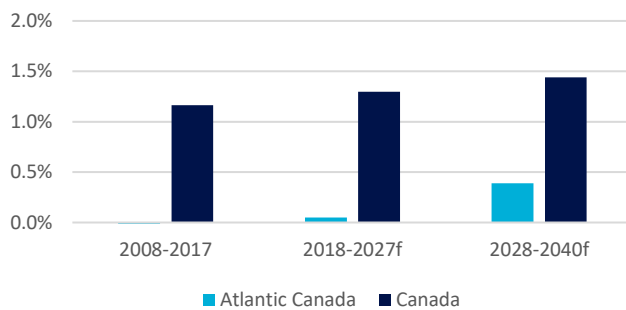


Source: Statistics Canada, Conference Board of Canada.

As labour becomes increasingly scarce in Atlantic Canada, businesses are expected to boost their investment spending resulting in productivity growth closer to the Canadian average going forward. However, it won't be enough to offset the declines expected in the labour force.

Productivity Growth Has Fallen Flat in Atlantic Canada

(average annual growth in GDP per hour worked, f=forecast)



Source: Conference Board of Canada.

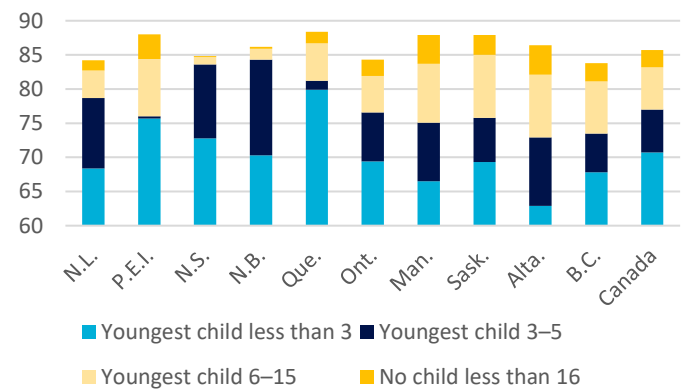
Expanding Early Childhood Education Can be Part of the Solution

With an aging population set to weigh on economic growth, policymakers need to focus on policies that raise labour force growth and productivity. Early childhood education can have a marked effect on labour force growth by boosting labour participation for women. For many mothers, the absence of reliable and

affordable child care can be a barrier to fully participating in the labour force. Some remain out of the labour force entirely, while others work part-time. In Atlantic Canada, the labour participation of women with children aged three to five is 82 per cent compared to 85 per cent for woman whose youngest child is between 6 and 15 (and therefore attending school full-time). Meanwhile, an average of 11,300 women report only working part time to help care for their children.

Labour Participation of Women with Young Children is Below Average

(female labour force participation rates, 2016)



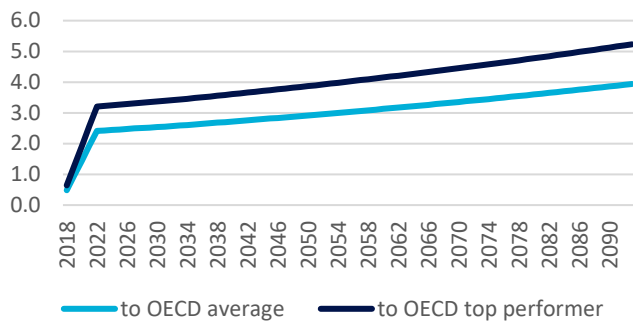
Source: Statistics Canada.

Better access to ECE can help lift participation rates for women. Evidence from the literature suggests that access to affordable, high-quality child care through programs such as ECE can boost maternal labour force participation rates, raise household income and reduce income inequality. Increasing access to ECE to the OECD average would require 10,000 new ECE positions in Atlantic Canada. Initially, this would result in roughly 2,400 women entering the workforce. Targeting the best OECD performers would require 33,000 new ECE spots and help 3,200 women enter the work force. The labour market impact in Atlantic Canada is relatively smaller than our estimate for Canada as a whole because women with young children in Atlantic Canada already have high labour force participation rates. However, any increase of

women in the labour force is important given the extremely bad demographic situation and the stagnant growth prospects.

Increased Investment in ECE Would Boost the Labour Force in Atlantic Canada

(increase in Atlantic Canada labour force, thousands)

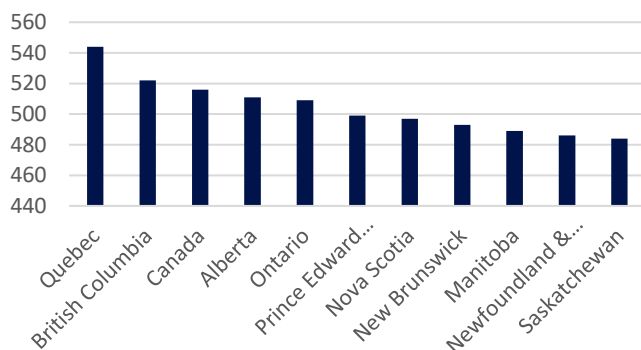


Source: Conference Board of Canada.

Looking beyond the impact on women, early childhood education can also boost skills development for children that are the workforce of the future and this is particularly true for children from disadvantaged backgrounds. For example, there is evidence that investment in ECE can have an impact on raising math scores. Atlantic Canada has lower than average scores suggesting potential impacts could be even larger.

Atlantic Canada Needs to Strengthen Essential Skills

(PISA Performance in Mathematics - Average Score)

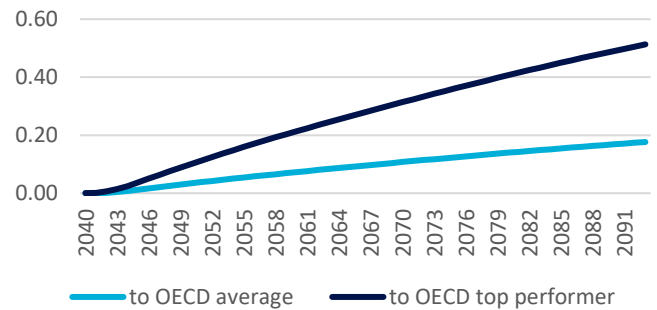


Source: The Conference Board of Canada; Statistics Canada.

Evidence suggests that children who attend ECE retain their academic advantage throughout life, leading to higher wages when they eventually enter the workforce. Therefore, more widespread use of ECE programs could help address the issue of income inequality.

Increased ECE Would Have a Long-Term Impact on Wages

(per cent increase in economy-wide wages due to bring ECE to the OECD average)



Source: Conference Board of Canada.

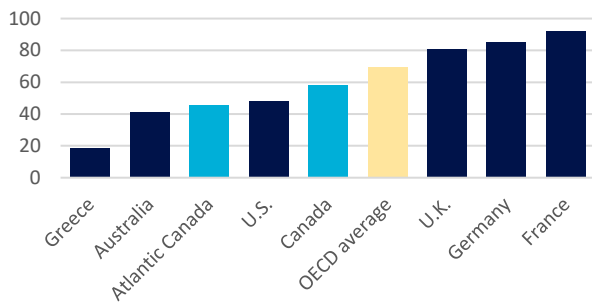
In addition to higher wages, more education for disadvantaged children can help raise labour productivity. Economists generally contend that investments in education can be a key source of economic growth. One American study found that, in the three or four decades prior to the 2008-09 recession, real output increased at an average annual pace of about 3.5 per cent. Growth in labour productivity—the driving force behind rising standards of living—expanded at a 2.4 per cent annual pace. It was estimated that education’s contribution to that growth was around 13 to 30 per cent of the total gain. The contribution of education to labour productivity has likely increased in importance in recent years as the economy has shifted from an industrial to a more knowledge-based economy.

Is Atlantic Canada Providing Adequate ECE?

Canada lags other nations in ECE enrolment and Atlantic Canada is behind the Canadian average. While Canada does a good job of

ensuring that all 5-year old children have access to early childhood education through kindergarten programs, enrolment for children under 5 years of age falls substantially below the average of other advanced economies. Canada's enrolment rate for children aged 2-4 years is 58 per cent, and in Atlantic Canada it is even lower at 46 per cent. While these numbers may improve with the introduction of junior kindergarten in Nova Scotia, to be phased in over the next four years, both these figures are likely to remain significantly lower than the OECD average of nearly 70 per cent.

Atlantic Canada has Low ECE Enrolment
(ECE enrolment rates, ages 2-4, 2014)

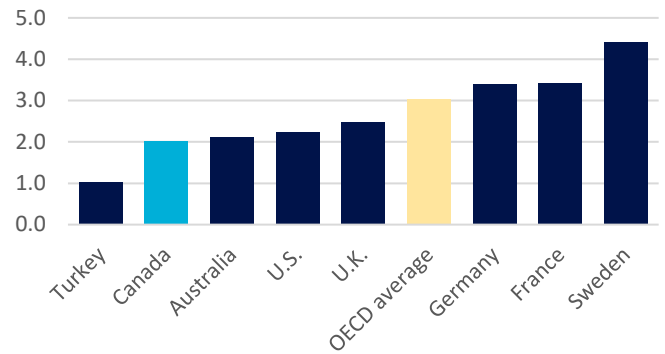


Source: OECD; Akbari and McCuaig; The Conference Board of Canada.

Lower ECE enrolment means that Canadian children have amongst the lowest duration of pre-primary education in the OECD. The average Canadian student aged 15 in 2012 reported just 2 years of pre-primary education. That is third-lowest in the OECD, ahead of only Turkey and Portugal, and well below the OECD average of 3 years. In top-performing Sweden the average student received 4.4 years of pre-primary education. Although data is not available specifically for Atlantic Canada, given the lower than average ECE enrolment, most

students probably have less than 2 years of pre-primary education.

Canada has a Low Duration of ECE
(Average duration of pre-primary education, years)



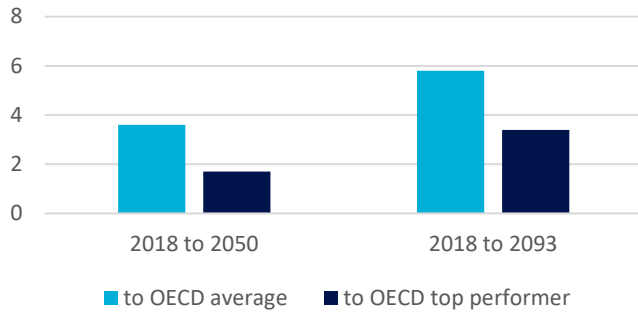
Source: OECD.

The Benefits of Expanding ECE Would Outweigh the Costs

We carried out a cost-benefit analysis of expanding ECE programs. Although this calculation was not done for Atlantic Canada specifically, in the Canada-wide analysis the benefits exceeded the cost. Our evaluation of the gains from higher maternal labour force participation and higher future wage earnings for children who receive ECE against the costs of funding the new spaces show that the gains from an expansion of ECE outweigh the costs. Our analysis examined four scenarios that looked at two different time horizons and two different assumptions about increases in enrolment. While the scale of benefits and costs differed, all scenarios demonstrated that the benefits from expanding ECE outweighed the cost of the ECE expansion.

The Benefit of ECE Would Outweigh the Cost

(Ratio of benefits to cost, NPV)



Source: Conference Board of Canada.

Expanding ECE can also Reduce Poverty and Lower Income Inequality

The economic benefits that accrue from ECE investments are not the only factor to consider. Other studies have shown that ECE can help reduce income and social inequalities because many of the benefits of ECE are realized by disadvantaged children and their families. Similar results were found in our analysis, since maternal employment makes a significant difference in the income distribution of families with young children.

We estimated that an expansion of ECE services in Canada would allow about 76,500 mothers from families with young children, who are currently out of the workforce, to return to work. Forty-three per cent of families with young children, where the mother doesn't work, have family incomes below \$36,000—the low income cut off for a family with two children—compared to just 12 per cent of families with young children where the mother does work. Overall, we find that increasing the provision of ECE to the OECD average would result in 23,000 fewer census families earning less than \$36,000—the low-income cut-off for a family with two children.

Recommendations

The evidence presented in the report *Ready for Life—A Socio-Economic Analysis of Early Childhood Education and Care* show a clear return on investments in ECE. As shown in this briefing many of these findings can be extended to Atlantic Canada and given lower scores on mathematics in Atlantic Canada, the impact on wages could be larger than average. Not only does investment in ECE return sizable economic benefits, but it can also help reduce inequality in society and raise many families out of poverty.

When looking at the provision of ECE in Atlantic Canada, the region is well ahead of some of their provincial peers with full-day kindergarten available to all children aged 5. In 2016, 96 per cent of the region's five-year-olds were enrolled in full-day kindergarten, compared to the national average of 82 per cent. However, when it comes to access for children younger than age five, Atlantic Canada needs additional investments to catch up with other provinces. Current data shows that ECE enrolment for children aged two-four is lower in Atlantic Canada compared to the national average. Nova Scotia is working on bridging the gap as it rolls out full-day kindergarten for children aged four by 2020. This is an important step but all provinces in the region should be examining ways to ensure that children have ECE access starting at least at age four and ideally at age three.

Final Thoughts

Governments in this country, especially those in Atlantic Canada, face significant fiscal constraints. Despite these challenges policy-makers should consider prioritizing initiatives like ECE that address many economic and social issues. The bottom line is that

investments in high-quality ECE can help children from disadvantaged backgrounds to succeed and when more children have this opportunity, both the economy and society are better off. Furthermore, investments in ECE also help reduce income inequality by boosting incomes for low income families and help support women to participate in the labour market. With population aging bringing Atlantic Canada into an era of slower economic growth, the region will need to look at investments such as those in ECE as a way to boost its current and future prosperity.