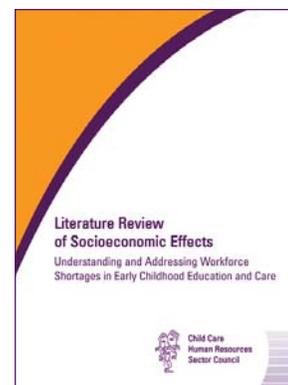


Executive Summary

Literature Review of Socioeconomic Effects



The *Literature Review of Socioeconomic Effects and Net Benefits* seeks to examine the broader socioeconomic implications of workforce shortages in early childhood education and care. Although there is little literature that directly examines this issue, a large body of Canadian and international research on ECEC and its impact on children, their parents, and society exists. Evidence from this body of research has been used to infer the socioeconomic implications of shortages in the ECEC sector. Most specifically, the literature concerning the social and economic effects of ECEC programs focus on four key areas:

1. the socioeconomic effects on participating children;
2. the socioeconomic effects on mothers of participating children;
3. the economic benefits and costs of selected ECEC programs; and
4. the economic benefits and costs of ECEC to local and national economies.

Each of these areas is summarized below and is further detailed in the full report, which also calculates the net benefits of ECEC.¹ For more information, download the *Literature Review of Socioeconomic Effects and Net Benefits* at www.ccsc-cssge.ca.

Socioeconomic effects of ECEC programs on participating children

There is widespread agreement in the academic literature that quality ECEC programs improve the cognitive abilities, future economic well-being and social outcomes of disadvantaged children. Most researchers also agree that quality programs improve the cognitive abilities and future economic well-being of more advantaged children.

The literature is more divided on ECEC's effects on children's social and emotional development (socio-emotional development). While the majority of articles argue that ECEC programs either have a positive or no effect on children's socio-emotional development; a minority of studies using non-experimental approaches argue it is negatively affected.² Some research indicates that low-quality care and extended periods of time spent in care may jeopardize the interaction between mothers and children.³ Overall, high quality ECEC is found to provide a multitude of positive outcomes,⁴ but can be difficult for parents to evaluate due to information asymmetry or a situation where one party has more or better information than the other.⁵ For example, parents may interpret clean/well-ordered reception rooms with a high quality program, when unobservable items (such as the level of staff training) may be a better indicator of program quality.

¹ This figure is then used in a subsequent report, *Estimates of Workforce Shortages*, which calculates the extent of the workforce shortage in the sector and its costs to society.

² Canada - Baker, Gruber and Milligan (2005) (Quebec) - US - Clarke-Stewart and Fein (1983); NICHD (2003a); Barnett (2001); McKay *et al.* (1978); Peisner-Feinberg (1999); Reynolds (1999) (Illinois); Andrews *et al.* (1982); Johnson and Walker (1991) (Texas); Reedy (Unpublished); Levin and Schwartz (2007) (Georgia); Jester and Guinagh (1983); Weikart *et al.* (1978) (Michigan); Schweinhart *et al.* (1993) (Michigan); Barnett *et al.* (1994); Love *et al.* (2003); Haskins (1985); Lally *et al.* (1988); Seitz *et al.* (1994); Loeb *et al.* (2007); Magnuson *et al.* (2005); Belsky (1986); Belsky (1987); Belsky and Steinberg (1978); Belsky *et al.* (1982); Gamble and Zigler (1986) - Other countries - Goodman and Sianesi (2005) (UK); Andersson (1992) (Sweden); Andersson (1989) (Sweden); Sylva (2003) (Europe).

³ Canada - Baker, Gruber and Milligan (2005).

⁴ Other countries - Andersson (2003) (Sweden (&US)).

⁵ US - Helburn (1995).

Socioeconomic effects of ECEC programs on mothers of participating children

Most literature concerning the impact on mothers of children in ECEC programs indicates that higher program fees will decrease a mother's hours of work and their tendency to participate in the workforce.⁶ More specifically, the estimated response of mothers' labour supply to a 1% increase in program fees ranges widely (from 0.0% to -0.92%) which means that a 1% increase in fees could decrease the mother's labour supply by as much as 0.92%. Factors that affect these estimates include the age of the youngest child and mothers' marital status, although it is ambiguous whether labour supply for married or single mothers is more responsive to price increases. A small number of articles⁷ noted that, in some cases, lack of access to ECEC programs can have a larger impact on mothers' labour supply than prices.

Economic benefits and costs of selected ECEC programs: Quebec

Most of the Canadian research is similar to that found elsewhere in the world regarding the socioeconomic implications of ECEC. Within Canada, developments around ECEC in Quebec are particularly noteworthy given the speed and magnitude of the change in the sector after the government introduced \$5-a-day child care as part of a comprehensive family policy. Quebec's experience is useful for understanding the socioeconomic implications of ECEC in the Canadian context and the potential implications of workforce shortages on socioeconomic outcomes.

Research lands on both sides of the debate about the impact of ECEC on children's socio-emotional development in Quebec. One study shows a reduction in aggression; another finds worsening parent-child interactions. Overall, research on the Quebec program is similar to that found elsewhere in the world concerning children's developmental outcomes, and the boost that lower fees provide to mothers' labour force participation rates and hours of work.

Two studies by Lefebvre and Merrigan (2005 and 2008) explored the impact of Quebec's ECEC policy on mothers' labour supply:

- In their 2005 study, they estimated that the policy increased mothers' labour force participation by 12.3% (meaning that labour force participation increased by 0.25% for every 1% decrease in fees).
- In their 2008 study, the estimated effect of the policy was to increase labour force participation rates by 6.5% for more educated mothers and 7.3% for less educated mothers. Total annual hours worked rose by 133 for less educated mothers and 114 for more educated mothers.

However, contrary to the majority of international evidence, one Quebec study found that the subsidised child care policy of Quebec produced negative outcomes on the Peabody Picture Vocabulary Test (PPVT) scores for children aged five years and possibly negative for children aged four years, in particular with less educated mothers. Other researchers, however, have criticized these studies because they lack an appropriate control or matched group, which makes the results less powerful than randomized experimental studies that have found positive effects. There is also the possibility that the above findings reflect the potential negative socioeconomic implications of the shortages of qualified staff in the Quebec system that occurred after the rapid increase in demand following the program's introduction.

⁶ Canada - Powell (1997); Powell (2002); Michalopoulos and Robins (2000) (&US); Michalopoulos and Robins (2002) (&US) - US - Anderson and Levine (1999); Blau and Hagy (1998); Blau and Robins (1988); Connelly (1992); Averett et al. (1997); Ribar (1992); Ribar (1995) - Other countries - Kornstad and Thoresen (2002) (Norway); Chone et al. (2003) (France); Oishi (2002) (Japan); Wrohlich (2004) (Germany); Graafland (2000) (Netherlands).

⁷ Canada - McCain *et al.* (2007); Bushnik (2006) U.S. Connelly and Davis (2002) - Other countries - Kreyenfeld and Hank (1999); Del Boca and Vuri (2005).

Economic benefits and costs of ECEC to local and national economies

Benefits and costs of ECEC programs to an economy can be illustrated in two ways: through a measure called a multiplier, which illustrates the rise in overall economic activity per dollar increase in expenditure for that particular program or project; or through dollar amounts and the cost/benefit ratio.

By all measures, the ECEC sector provides one of the largest—if not the largest—boost to short-term economic activity of all the major sectors of the economy through direct, indirect, induced and mothers' workforce participation:

- A simulation by Statistics Canada (for the direct and indirect effects) shows the short-term benefits to the economy from an increase in child care output, (using the GDP multiplier) is among the highest of all sectors – tied fifth of all major industries.
- The ECEC sector has the highest employment multiplier of all the major industries, with more employment per dollar of activity.
- As one of the lower paid occupations, ECEC workers are more likely to spend (versus save) in comparison to higher paid workers. According to estimates generated for this project, this means the ECEC sector has one of the highest induced multipliers of all sectors in the economy.
- Further benefits to the economy could be derived from an increase in the number of women working due to a rise in available ECEC spaces.

The long-term benefits of ECEC have also been documented. The extensive Chicago child-parent centres program and two randomized studies—the High Scope/Perry and Carolina Abecedarian programs in the U.S.—show costs being repaid several times over. Other child care programs, targeted and universal, show positive albeit smaller net benefits to society per dollar spent.

Conclusion

For Canada, previous research shows two dollars or more of long-term benefits per dollar invested. The analysis provided in the full-length *Literature Review of Socioeconomic Effects and Net Benefits* shows that for every dollar invested in ECEC the estimated net present value of benefits is \$2.54. The estimated net hourly benefit of ECEC for children and mothers is \$4.27. As the *Estimates of Workforce Shortages* report demonstrates, when these benefits are taken into account, the lack of worker supply in the sector has significant socioeconomic implications for Canada.

For more information or to order print versions of this document, contact the Child Care Human Resources Sector Council (CCHRSC):

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