



# Canadian Labour Market and Skills Researcher Network

## Working Paper No. 12

### Do Child Tax Benefits Affect the Wellbeing of Children? Evidence from Canadian Child Benefit Expansions

*Kevin Milligan*  
University of British Columbia

*Mark Stabile*  
University of Toronto

February 2009

CLSRN is supported by Human Resources and Social Development Canada (HRSDC) and the Social Sciences and Humanities Research Council of Canada (SSHRC). All opinions are those of the authors and do not reflect the views of HRSDC or the SSHRC.

# Do Child Tax Benefits Affect the Wellbeing of Children? Evidence from the Canadian Child Benefit Expansions\*

Kevin Milligan  
Department of Economics  
UBC  
[kevin.milligan@ubc.ca](mailto:kevin.milligan@ubc.ca)

Mark Stabile  
School of Public Policy and Governance, and Rotman School of Management  
University of Toronto  
[mark.stabile@utoronto.ca](mailto:mark.stabile@utoronto.ca)

February 2009

*JEL Codes: I32, J13, J38*

*Keywords: Child Tax Benefits, Income Transfers, Child Development, Standardized Tests, Mental Health*

\* This research has been supported by a CLSRN grant. We thank Josh Lewis for excellent research assistance. We also thank seminar participants at Alberta, Cornell, McGill, RAND, and Simon Fraser, as well as lunch workshop participants at UBC and several conference participants and discussants for many very helpful suggestions. This paper represents the views of the authors and does not necessarily reflect the views of Statistics Canada. The data used in this article can be obtained through application to Statistics Canada's Research Data Centre program at <http://www.statscan.ca/english/rdc/index.htm>.

## **Abstract:**

A vast literature has examined the impact of family income on the health and development outcomes of children. One channel through which increased income may operate is an improvement in a family's ability to provide food, shelter, clothing, books, and other expenditure-related inputs to a child's development. In addition to this channel, many scholars have investigated the relationship between income and the psychological wellbeing of the family. By reducing stress and conflict, more income helps to foster an environment more conducive to healthy child development. In this paper, we exploit changes in child benefits in Canada to study these questions. Importantly, our approach allows us to make stronger causal inferences than has been possible with the existing, mostly correlational, evidence. Using variation in child benefits across province, time, and family type, we study outcomes spanning test scores, mental health, physical health, and deprivation measures. The findings suggest that child benefit programs in Canada had significant positive effects on test scores, as has been featured in the existing literature. However, we also find that several measures of both child and maternal mental health and well-being show marked improvement with higher child benefits. We find strong and interesting differences in the effects of benefits by sex of the child: benefits have stronger effects on educational outcomes and physical health for boys, and on mental health outcomes for girls. Our findings also provide some support for the hypothesis that income transfers operate through measures of family emotional well-being.

## Executive Summary

Since the 1990s, many countries have reformed their systems of transfers to low-income families with an eye toward improving work incentives—helping people make a transition from welfare to work. Empirical evidence on transfer programs such as the Earned Income Tax Credit in the US or the Working Tax Credit in the UK, appears to be surprisingly robust. Well-designed transfer systems can have a strong influence on parents' choice to work or not. This focus on welfare-to-work, however, seems to have diminished the attention paid to another important goal of well-designed transfer systems—improving the wellbeing of recipient families.

### How does extra income affect family wellbeing?

Researchers and policy-makers have long been interested in figuring out the effect of income—or the lack of income—on families and children. The eternal problem for this research, however, was trying to establish causal relationships. Some of the same factors that might lead people to have lower income (impaired mental or physical health; a troubled childhood; lesser mental or physical capacity; less ambition or drive) might also lead their families to experience more problems. For this reason it has been difficult to attribute causally the family problems to the income shortfalls.

Of late, several researchers have found ways to overcome this empirical challenge through creative use of data. The primary focus of much of this scholarship has been education outcomes—and test scores specifically. [Blau \(1999\)](#), for example, finds that \$10,000 of income leads to around a  $\frac{1}{4}$  standard deviation increase in test scores. [Dahl and Lochner \(2008\)](#) find bigger results, with a \$10,000 increase leading to an increase of about 60% of a standard deviation in test scores.

While convincing, this work is somewhat limited by the narrowness of the outcomes considered. Increased family income could improve children's outcomes through at least two distinct channels. First, direct investments of new money in education (books, educational toys, tutoring) could improve long-run child outcomes. The developmental psychology literature has referred to this as the 'resources' channel ([Yeung et al, 2002](#)), and this has been the primary focus of most economic analysis. But the lack of income in a family might lead to aggravation, stress, and more troubled relations among family members. These environmental conditions could affect children's long-run wellbeing by impairing their emotional, physical, and academic development. This channel is called the 'family process' channel and has been explored far less in the economics literature.

## **Evidence from the Canadian child benefit system**

We address the impact of increased transfers to poorer families on children's and families' outcomes. Our study brings two advantages. First, we study Canadian children over a time period in which transfers to families underwent substantial reform; reform that differed through time, across provinces, and across family types. This extent of policy variation is useful because it allows us to examine the impact of extra family income by comparing similar families who happen to live in different provinces or are studied in different years. The second advantage of our study is that we have available a large and detailed survey, the National Longitudinal Study of Children and Youth (NLSCY), which allows us to broaden our focus to include several measures indicative of an active 'family process' channel.

We have results in three spheres. First, we find that an extra \$1,000 of child benefits leads to an increase of about 0.07 of a standard deviation in the math scores and the Peabody Picture Vocabulary Test, a standard measure of language ability for young children ages four through six. These findings are of the same magnitude as the Dahl and Lochner (2008) study mentioned earlier, which helps to corroborate their result. Second, we examine the impact of child benefits on indicators of mental and emotional wellbeing using standardized psychometric scores available in the NLSCY. We find that more child benefit income leads to lower aggression in children and decreases in depression scores for mothers. Finally, for physical health we find little evidence of improvements related to increased child benefits—although we do find a decrease in families reporting their children have been hungry due to lack of food.

We also break down our results by gender, finding stark differences across boys and girls. In general, we find that girls seem to show greater response on the mental health and behavioural scores while boys show greater response on test scores. This certainly suggests that the channels through which benefit income helps these families may indeed be different for boys than for girls.

Finding that benefit income can improve the emotional and mental health of children is not only important for child health. Recent research by Currie and Stabile (2008) and Currie, Stabile, Manivong, and Roos (2008) shows that improvements in child mental health lead to long-term academic success, which is strongly correlated with improved earnings.

## **Implications for policy**

Our research suggests that well-designed income transfers can not only help families make their way back to employment, but also improve the educational, mental health, and behavioural outcomes of the next generation.

## References:

- Blau, David M. (1999), "The effect of income on child development," *The Review of Income and Statistics*, Vol. 81, No. 2, pp. 261-276.
- Currie, Janet and Mark Stabile (2008), "Mental Health in Childhood and Human Capital," forthcoming in *An Economic Perspective on the Problems of Disadvantaged Youth*, Jonathan Gruber (ed.) (Chicago: University of Chicago for NBER).
- Currie, Janet, Mark Stabile, Phongsack Manivong, and Leslie L Roos, (2008) "Child Health and Young Adult Outcomes" NBER Working Paper No.14482.
- Dahl, Gordon and Lance Lochner (2008), "The impact of family income on child achievement: Evidence from the Earned Income Tax Credit," NBER Working Paper No. 14599.
- Milligan, Kevin and Mark Stabile (2008), "Do child tax benefits affect the wellbeing of children? Evidence from Canadian Child Benefit Expansions." NBER Working Paper No. 14624.
- Yeung, W. Jean, Miriam Linver, and Jeanne Brooks-Gunn (2002), "How Money Matters for Young Children's Development: Parental Investment and Family Processes," *Child Development*, Vol. 73, No. 6, pp. 1861-1879.