

# Canadian Labour Market and Skills Researcher Network

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Intergenerational Effects of Disability Benefits Evidence from Canadian Social Assistance
Programs

Kelly Chen
Digonex Technologies, Inc.

Lars Osberg
Dalhousie University

Shelley Phipps
Dalhousie University

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### Intergenerational Effects of Disability Benefits

Evidence from Canadian Social Assistance Programs\*

Kelly Chen<sup>1</sup>, Lars Osberg<sup>2</sup> and Shelley Phipps<sup>3</sup>

#### **Abstract**

Using Statistics Canada's National Longitudinal Survey of Children and Youth (NLSCY), this paper presents the first evidence on whether increased disability benefits reduce the negative consequences of parental disability on children's well-being. Using a continuous difference-in-differences (DD) approach, we analyze whether gaps in developmental outcomes between children of disabled and non-disabled parents vary with the benefit level. We find strong evidence that higher parental disability benefits lead to improvements in children's cognitive functioning and non-cognitive development, as measured by math scores in standardized tests, and hyperactive and emotional anxiety symptoms. The effect is larger on children with a disabled mother than on those with a disabled father - which is consistent with the "good mother hypothesis" that a mother's income is more likely than a father's to be spent in ways that benefit the children.

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Transmission

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<sup>&</sup>lt;sup>1</sup> Kelly Chen, Digonex Technologies, Inc., 150 West Market Street, Indianapolis, Indiana, U.S.A., 46204; telephone: 317-638-4150 X220; fax: 317-638-4174; email: <u>Kelly@digonex.com</u>.

<sup>&</sup>lt;sup>2</sup> Lars Osberg; Department of Economics, Dalhousie University, Halifax, Nova Scotia, Canada, B3H 4R2; telephone: 902-494-6988; fax: 902-494-6917; email: <u>Lars.Osberg@dal.ca</u>.

<sup>&</sup>lt;sup>3</sup> Shelley Phipps, Department of Economics, Dalhousie University, Halifax, Nova Scotia, Canada, B3H 4R2; telephone: 902-494-6987; fax: 902-494-6917; email: <a href="mailto:Shelley.Phipps@dal.ca">Shelley.Phipps@dal.ca</a>.

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#### **Executive Summary**

A growing body of literature suggests that the children of disabled parents have more developmental problems than children of non-disabled parents (Cuong and Mont 2011; Bratti and Mendola 2011; Morefield et al. 2011). This paper asks if higher provincial cash transfers to parents with disabilities partially alleviate the negative consequences of parental disability for children's cognitive and non-cognitive outcomes: specifically, standardized math test scores, hyperactive and emotional /anxiety symptoms.

In Canada, disability benefits are primarily provided by the ten provincial governments, each of which establishes its own rules and benefit levels, resulting in considerable heterogeneity across provinces, in both levels and timing of changes. For example, in 1994 Ontario (at \$15,054) had the most generous benefits in the country while Quebec (at \$10,301) and New Brunswick (at \$10,531) lagged well behind. By 2006, however, Ontario had cut benefits substantially (a real reduction of 18%), New Brunswick benefits were down by 9.8 % but Quebec kept its rates roughly constant.

The Statistics Canada National Longitudinal Survey of Children and Youth (NLSCY), a nationally representative survey, provides intergenerational information on parents and children, including both father and mother's activity limitation and indicators of children's cognitive and non-cognitive skill development. Using the NLSCY, we estimate continuous difference-in-differences (DD) models of child outcomes, exploiting provincial variation in real disability benefits available to parents. This procedure assumes that children's province of residence, hence exposure to variation in parental disability benefits, is independent of unobservable determinants of the child's developmental outcomes.

Because unmeasured within-province shocks may influence all children's outcomes, this paper uses children of non-disabled parents who lived in the same province as comparison group and estimates whether changes in children's outcome gaps correspond to benefit changes.

The identifying assumption may, in principle, be violated if there is a potential inter-provincial migration response to disability benefits. The richness of the NLSCY allows us to address these sources of bias by constructing a longitudinal sample that tracks each child over time. Our panel continuous difference-in-differences estimator compares only children whose parents are "always disabled" with children whose parents are "always non-disabled" over the entire period and excludes those who ever moved inter-provincially. Finally, to check the robustness of the results and our identification strategy, placebo regressions with less likely eligible samples, e.g. children whose parents are disabled but have higher education are conducted.

In every province, there is an achievement gap between the children of disabled and non-disabled parents. But, we find that the gap is smaller when disability benefits are higher. Overall, we conclude that higher parental disability benefits lead to a substantial reduction in the gap in cognitive and non-cognitive skill development between children of disabled and non-disabled parents. We know of no plausible argument why greater benefits paid to disabled parents should diminish achievement among the children of non-disabled parents – hence our interpretation is that the gap narrows because the achievement of children of disabled parents is improved. The intent-to-treat estimates of this paper suggest that children with disabled parents living in a province that cut its real annual disability benefits by \$3,000, as Ontario did during 1994-2006, would experience a decrease of 3 % of one standard deviation in standardized math test scores and 9-10 % of one standard deviation reduction in hyperactive and anxiety symptoms.

Although benefit reduction has a qualitatively similar impact on the labour supply of male and female disabled parents, there is an asymmetric gendered "added worker effect" on the spouse of the disabled parent. Specifically, lower benefits produce a larger increase in the non-disabled father's full-time employment than on a non-disabled mother's employment. Furthermore, benefit effect estimates for children's math test scores and hyperactivity are substantially reduced when the disabled parent is a father rather than a mother.

To the best of our knowledge, this study is the first to investigate the effects of disability benefits on the gap in child well-being. This study is also distinguished from many related studies of the family income-child development relationship by including not only indicators of cognitive skills (i.e. math test scores), but also non-cognitive indicators (i.e. children's problem behaviour and emotional well-being). Both types of skills have been shown to have lasting impacts on individuals' subsequent labour market outcomes (Cameron and Heckman 1998; Cunha and Heckman 2010). Finally, our family income and parental employment analysis contributes to a broader economics literature on the labour supply effects of disability benefits. Our estimates of disability benefit effects on weekly hours of work fall roughly within the range of previously published estimates using Canadian data, and are consistent with the "missing added worker" effects found by other studies in North America (e.g. Colie 2004; Gallipoli and Turner 2008).