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# Highlights from a new study on the lifetime earnings growth of individuals with childhood-onset disabilities



by Sung-Hee Jeon, Jungwee Park and Dafna Kohen

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# ***Highlights from a new study on the lifetime earnings growth of individuals with childhood-onset disabilities***

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A study by Statistics Canada researchers Sung-Hee Jeon, Jungwee Park and Dafna Kohen recently published in *Health Economics* offers important new insights into the lifelong evolution of the earnings of individuals with a disability that started when they were children. The study notes that, unlike many other manifestations of ill health, disability can result in a health condition that will last the rest of a person's life. It can instantly destroy job-specific human capital accumulated over a long period and seriously affect an individual's ability to work. Having a prolonged disability is generally known to be negatively associated with employment and earnings. For some individuals with a disability, the main labour market challenge is to find employment. Others may find it difficult to retain their jobs or qualify for promotion opportunities. Yet, individuals with disabilities can also adapt to their physical or mental limitations and develop new skills that may fully or partially offset the lost skills or abilities. How successfully individuals can adapt to their disability is likely to depend on the onset age, nature and severity of the disability. Researchers must consider these essential factors when they study the long-term effects of disability on labour market outcomes.

The age of disability onset plays an especially important role in the lifetime labour market outcomes of individuals with disabilities. The impact of a disability is likely to be different for those whose disability started before they fully developed their human capital (e.g., those whose disability started in childhood or at a young age), those whose disability started in the middle of their working careers during prime working age and those whose disability started shortly before retirement. Individual decisions regarding human capital adjustment (e.g., choosing a field of study or learning new skills) or labour market adjustment (e.g., switching jobs) depend on many factors, such as the opportunity cost of making such adjustments, expected returns, and non-labour income alternatives. Compared with individuals who become disabled later in life, those who become disabled at a young age may have more time to adjust to their disability and develop labour market skills mitigating the impact of their disability even before entering the labour market. They may also be willing to invest more time and financial resources in acquiring new skills knowing that the returns from such an investment will last a lifetime. The onset age also directly affects individuals' educational attainment, which is one of the most important determinants of lifetime earnings.

The scarcity of data has been a major barrier to research investigating the long-term effects of disabilities that start during childhood. The new study leverages information from a unique dataset linking the 2017 Canadian Survey on Disability with longitudinal individual tax records. The linked data span several decades and contain accurate information about individual annual earnings. The study defines a childhood-onset disability (COD) as a long-term disability whose onset occurred before an individual's 16th birthday. The analytical strength and unique element of the study lie in the comparison of the earnings growth profiles of individuals with and without COD spanning their entire working lives, from the age when individuals generally enter the labour market to the age when they typically retire. The analytical framework used in the study is especially suitable for gaining a better understanding of whether individuals with COD benefit from the accumulation of labour market skills and work experience to the same degree as individuals without COD with a similar level of education.

The study shows that the earnings of individuals with COD generally grow slower than the earnings of individuals without COD during their working careers. Those with COD experience very little earnings growth when they are in their mid-30s and 40s, while the earnings of those without COD grow steadily until they reach their late 40s and early 50s. While the annual earnings of men with COD in their late 40s are, on average, about 3.6 times larger than their earnings at age 20, the annual earnings of men without COD in their late 40s are about 4.2 times larger. The earnings of women with COD are about 2.8 times larger when they are in their mid-40s compared with what they earn at age 20. However, women without COD earn 3.2 times more in their mid-40s than they do at age 20.

This pattern of relatively slow earnings growth among individuals with COD compared with individuals without COD is especially pronounced for men holding a university degree. The study puts the results in the context of the large economics literature and general long-standing interest among economists in the determinants of lifetime earnings growth. It argues that sources of differences between the age-earnings profiles of university graduates with and without COD are likely to be found in the role of work experience. It also suggests that work experience may not be as closely reflected in the earnings of individuals with COD during their mid-career years as in the earnings of individuals without COD.

The study is titled "Childhood-onset disabilities and lifetime earnings growth: A longitudinal analysis," and the article is available via the *Health Economics* website: <http://doi.org/10.1002/hec.4687>. A free full-text version of the article is also available from [ResearchGate](#).

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