

RESEARCH BRIEF

# Data Infrastructure and Student Mobility Research in Ontario: Past, Present, and Future

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### **An efficient postsecondary education (PSE) system allows students to switch tracks**

without experiencing arbitrary credit loss. Students should be able to move across programs in different institutions, but within the same field of study (e.g., math), without running into bureaucratic red tape that forces them to repeat prior learning unnecessarily. This saves both students and the province money and ensures that students enter the labour market without delay.

In PSE systems like Ontario's, where our college and university sectors were not originally designed to facilitate cross-sector student mobility, our primary tool in the battle against credit loss is a decentralized framework of articulation agreements. Over the years, colleges and universities have developed a web of primarily bilateral agreements to specify how much transfer credit students will receive when they switch institutions.



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Rigorously evaluating how students fare in this decentralized system is a difficult task for researchers. Studies show that many transfer students take meandering educational pathways: switching institutions, stopping out, and re-starting in unexpected ways or places. These attributes mean that transfer students defy most standard data-collection designs in social science research. For instance, standard cross-sectional surveys will fail to capture the full complexity of their educational histories, unless carefully designed to do so.

Longitudinal surveys track students over time and can capture mobility patterns, but they are costly and suffer from attrition even when carried out by well-resourced organizations. For example, the Youth in Transition Survey ([YITS](#))—a joint initiative between Statistics Canada and Human Resources and Skills Development Canada (HRSDC)—is the gold standard in Canadian educational research datasets. It tracked multiple cohorts of students from their teenage years into young adulthood, collecting detailed information on both

their education and labour market outcomes. However, the YITS sample dropped precipitously from roughly 38,000 in 2000 (Cycle 1) to roughly 11,000 by 2010 (Cycle 6). Such sample sizes are not sufficient for detailed statistical analysis within provinces or regions and thus have limited use for policymakers. This is especially true when it comes to transfer research. Since transfer students compose only a small portion (6–9 percent) of Ontario’s PSE students, we need large samples. These samples need to be further broken down, not only by the four main transfer types,<sup>1</sup> but also by demographics within each type, such as gender, cohort, race, economic class, and immigration status. Otherwise, estimates produced by statistical models will lack power and reliability.

In addition to broad population coverage and lengthy longitudinal frames, transfer research ideally requires a wealth of metrics reflecting students’ academic, behavioural, and demographic traits captured early in their life-course. As both researchers and experienced educators will tell you, the seeds of success in education are planted many years before a student steps foot on a college or university campus.<sup>2</sup> If we ignore upstream factors influencing attainment and mobility, we could bias our understanding of what produces challenges in the later stages of the student life-course. The need to account for early life-course metrics presents an additional layer of complexity when choosing or constructing data sources for transfer research.

Faced with these extreme data demands, student mobility researchers have started to turn to administrative data linkages. By administrative, we refer to records produced through normal operations at schools (both K–12 and PSE), which are often compiled and stored by coordinating bodies, like school boards or government agencies (e.g., departments, ministries, etc.). Linking such sources allows for tracking transfer students throughout their journey, provides population-level coverage, and affords access to detailed academic and other records. Such data sources provide the ideal platform for studying student mobility.

South of the border, there are numerous examples of these data-linkage efforts. Supported by the Statewide Longitudinal Data System ([SLDS](#)), many American states have constructed impressive data warehouses (e.g., Florida, Texas, etc.) that allow for the tracking of individuals across the life-course—all the way from kindergarten to the labour market. In British Columbia, the Student Transitions Project ([STP](#)) is also a national leader, allowing for the tracking of students from K–12 and through PSE.

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1. By this, we are referring to college-to-college, college-to-university, university-to-university, and university-to-college.

2. For examples, see: Brown, Gallagher-Mackay, & Parekh, [2019](#); Flouri & Buchahan, [2004](#); Hango, [2011](#).

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Over the next two to three years, ONCAT is taking concrete steps to ameliorate this situation. One exciting initiative will pilot large-scale data sharing across K–12 and PSE organizations in the Greater Toronto Area. Our primary goal is to demonstrate to sector stakeholders the utility of administrative linkages for institutional planning, government policy development, and academic research. In the process, we also hope to make significant inroads in the study of transfer research in Ontario.

As part of this effort, over the coming weeks, we will be publishing some exploratory empirical analyses of transfer using one of the first cross-sector (K–12/PSE) administrative linkages of its kind in Ontario: between the Toronto District School Board (TDSB) and the University of Toronto. The attendees of our most recent Transfer Advisors Group (TAG) and Francophone Committee meetings have already seen the preliminary findings of this project. We hope that profiling this research more broadly will help to raise awareness about the utility of administrative linkages, and, hopefully, inspire interest on the part of other organizations in participating in a broader GTA pilot.

Stay tuned!



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[oncat.ca/en/projects/the-tdsb-ut-linkage-and-transfer-project](https://oncat.ca/en/projects/the-tdsb-ut-linkage-and-transfer-project)



*Established in 2011, the Ontario Council on Articulation and Transfer (ONCAT) was created to enhance academic pathways and reduce barriers for students looking to transfer among Ontario's public colleges, universities, and Indigenous Institutes.*