



# Canadian Labour Market and Skills Researcher Network

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### Open Enrolment and Student Achievement

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# Open Enrolment and Student Achievement

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## Abstract

We investigate the effects of public school open enrolment, which allows students to enroll in any public school with available space, on fourth grade test scores. We find a small, positive effect on the average student; this benefit appears to stem from increased competition among schools, rather than directly through expanded choice opportunities. Among students whose catchment school is locally top-ranked according to test scores, greater choice is of no direct benefit; however, students whose catchment school is locally lowest-ranked earn higher scores when they have access to better local schools. Students in both groups benefit from increased school competition.

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## Executive Summary

Policies that offer parents greater scope for school choice are increasingly popular among governments aiming to improve educational outcomes. By far the most prevalent form of school choice policy is “open enrolment”, which allows students to attend public schools outside their neighborhood catchment area. Open enrolment is intended to improve student outcomes through two primary channels: by allowing families to enroll their children in schools that are higher quality or better matches; and by creating incentives for school managers to increase effort in order to attract or retain students when faced with increasing competition. Student outcomes may also be affected indirectly through peer effects if increased scope for school choice alters the distribution of student characteristics across schools.

British Columbia (B.C.) followed a growing number of jurisdictions when it adopted province-wide open enrolment in 2002. This paper uses administrative and test score data provided by the B.C. Ministry of Education to study the effect of this policy change on students’ grade four reading and numeracy standardized test scores. For students who live in areas where public schools are very distant from one another, the substantial travel costs associated with opting out of their catchment school make it unlikely that the new policy would have meaningful effects. However, for students who live in densely populated urban areas that are served by large numbers of proximate public schools, full open enrolment may substantially increase local opportunities to opt in to public school alternatives, and intensify competition among schools. We identify the effects of open enrolment on student achievement via this variation in treatment intensity, before versus after the policy change, by comparing the difference in fourth grade test scores of pre- and post-treatment cohorts of students who reside in catchment areas where there are a larger number of proximate public schools to the difference in test scores of pre- and post-treatment cohorts who reside in catchment areas where there are fewer.

Our baseline results show that open enrolment led to small, precisely estimated improvements in the average reading and numeracy scores of fourth grade students. We then disentangle the effects of choice versus competition by including in our model of student achievement both the number of public schools that are proximate to a student’s home (a measure of the scope for choice) and the average number of public schools proximate to students who reside near the student’s guaranteed “catchment” school (a measure of competition facing the catchment school). We find clear evidence that the primary mechanism through which open enrolment improves student achievement is by increasing competition between schools. In contrast, we find that the direct effect of increased *choice* under open enrolment is negligible on average.

Our results have important implications for the debate on public school choice policies. Most importantly, we find clear, consistent evidence that greater competition among public schools under B.C.’s open enrolment policy created a

tide that lifted most, if not all, boats. While these effects are very small for the average student, they are of some consequence for those who live in neighborhoods that are served by a larger number of proximate public schools – in the range of .07 to .09 standard deviations. These results serve as a reminder that while school choice policies may be an effective strategy for improving outcomes in densely populated areas, they are less likely to be effective in less densely populated areas or rural districts.

We also find that the *quality* of local public alternatives strongly influences how student achievement responds to open enrolment. After accounting for the effects of competition, we find that students who had unrestricted access only to the locally lowest ranked public school before open enrolment gain no additional benefit from greater access to alternative public schools. For students who already had unrestricted access to the locally highest ranked public school before open enrolment, gaining freer access to alternative public schools has an adverse effect on test scores on average. This adverse effect neutralizes the benefit of competition with respect to both reading and numeracy scores, so that the test scores of these students are unchanged on average under open enrolment.

Our approach does not separately identify the effects of changes in school peer composition that may arise in response to open enrolment from the direct effects of increased choice and competition. Students who remain in schools that experience a decline in peer quality may be made worse off by open enrolment. Our research demonstrates that any possible adverse effects of open enrolment that operate via increased choice and peer effects may be offset by academic improvements arising from increased competition between schools.