

# Canadian Labour Market and Skills Researcher Network

### **Working Paper No. 66**

School Competition and Efficiency with Publicly Funded Catholic Schools

David Card
University of California-Berkeley

Martin Dooley
McMaster University

Abigail Payne McMaster University

September 2010

CLSRN is supported by Human Resources and Skills 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.

## School Competition and Efficiency with Publicly Funded Catholic Schools

David Card UC Berkeley

Martin Dooley McMaster University Abigail Payne McMaster University

September 2010

#### **ABSTRACT**

The province of Ontario has two publicly funded school systems: secular schools (known as public schools) that are open to all students, and separate schools that are limited to children with Catholic backgrounds. A simple model of inter-system competition predicts that incentives for effort are higher in areas where there are more Catholic families who are relatively uncommitted to one system or the other. We measure the willingness of Catholic families to switch systems by studying the effect of school openings on enrollment at nearby schools in the competing system. The results suggest that families in rapidly growing areas have the weakest attachment to a particular system. We then relate student test score gains between 3rd and 6th grade to measures of potential cross-system competition. We find that competition for Catholic students has a significant effect on test outcomes in both systems, particularly in fast-growing areas. Our estimates imply that expanding competition to all students would raise average test scores in 6th grade by 6-8% of a standard deviation.

JEL Classification: I20, I21, H41

Keywords: School Competition, School Choice, Student Performance

<sup>\*</sup> We thank the editor and two referees for helpful comments and suggestions. We also thank Joseph Altonji, Todd Elder, David Green, Philip Haile, Steven Jones, Patrick Kline, Patrick McEwen, Derek Neal, Craig Riddell, Arthur Sweetman, and many other seminar participants for comments on earlier drafts. We gratefully acknowledge the efforts of Olesya Kotlyachkov and the research assistants in the Public Economics Data Analysis Laboratory. This research has been funded from grants from the Canadian Foundation for Innovation, the Ontario Innovation Trust, the Social Sciences and Humanities Research Council, the Council of Ministers of Education, and McMaster University.

#### **Executive Summary:**

Rising costs and growing concerns over student success raises into question what is the best way to deliver publicly funded education programs. Basic economic intuition suggests that increasing competition within the educational system will encourage a better use of resources by school districts. This efficiency gain should result in stronger student performance. For the competition hypothesis to work, however, families must be willing and able to choose between schools and school administrators must be rewarded for attracting additional students. Choice in schooling can be achieved by providing greater access to publicly funded schools or through the use of vouchers or tax credits that subsidize the cost of private schooling.

In their study "School Competition and Efficiency with Publicly Funded Catholic Schools," CLSRN Affiliates David Card (UC-Berkeley), Martin Dooley (McMaster University), and Abigail Payne (McMaster University) study the Ontario public education system to assess whether there is evidence of a willingness to switch schools and, if so, whether student performance is better in areas where the willingness to switch schools is greater. As in most provinces, in Ontario, Catholic parents have the choice of sending their children to two separately run publicly funded educational systems. The bigger system is one that any student may attend and contains secular schools (public schools). The smaller system contains only Catholic schools (separate schools) and is open only to children of Catholic families. The two systems are run independently and receive equal government funding per student. A primary constraint on the potential for competition is that only children with Catholic backgrounds (about 40% of students) can choose between public and separate schools. When Catholic families are willing to move between public and separate schools, however, this creates incentives for both public and separate school systems to improve in order to attract more students. With a willingness to move between the systems, poor performing schools will attract fewer students which results in it receiving less funding. This threat of losing resources should provide administrators with an incentive to use resources in a way that results in stronger student performance.

To identify the characteristics that are correlated with the willingness of Catholics to switch systems the study measures the impact of school openings on enrolment trends at nearby schools. If Catholic parents are highly committed to a given system, the opening of a new school in one system will have no effect on neighbouring school enrolment in *the competing system*. When parents are relatively uncommitted to a school system, however, some families will switch systems. The study finds significant cross-system switches in enrolment following new school openings, with a magnitude that is proportional to the local fraction of Catholics. The effects are bigger in fast-growing areas, where families appear to have weaker ties to a particular system.

Building on these findings the study then tests the prediction that test score gains between grade 3 and 6 are larger for students in both systems in more competitive markets (i.e., fast-growing neighborhoods with a higher fraction of Catholics). The study finds statistically significant impacts of the market characteristics associated with

greater potential competition on the growth rate of student achievement. Both the fraction of Catholics and its interaction with a measure of population growth are associated with faster student test score gains. The study confirms these effects extend to students in both systems, and that they are robust to controls for potential selection biases. The study's estimates suggest that expanding choice to all Ontario students would have a modest effect on 6<sup>th</sup> grade test scores, raising achievement in 6<sup>th</sup> grade by 6-8% of a standard deviation.

There are at least two implications of the study for the design of alternative public education systems. First, the evidence that a significant fraction of families are willing to move between publicly-funded schools to access a combination of higher quality or more convenient schools suggests cross-system competition can lead, at least in principle, to improved efficiency of publicly-funded schools. Second, the study underscores the critical importance of research on the links between parental choice decisions and the incentives faced by competing school systems.