## STREAMING STUDENTS

This report is an excerpt from the 2015 Annual Report on Ontario's Publicly Funded Schools.

Grade 8 is a critical year for Ontario's students. It is not only a pivotal point in a young person's emotional, social, and physical development, ${ }^{4}$ but also a time when students must choose between taking applied and academic courses in high school. These course selections largely determine students' educational pathways throughout high school, and typically influence post-secondary options and career opportunities. ${ }^{5}$

## DIVIDING STUDENTS INTO SEPARATE TRACKS

Applied and academic courses were introduced in 1999 when the Ministry of Education implemented the Ontario Secondary Schools policy, Ontario Secondary Schools, Grades 9-12: Program and Diploma Requirements, 1999 (OSS:99). The new system established applied and academic courses in grades 9 and 10 , which were prerequisites for a range of "destinationbased" courses in grades 11 and 12.

The policy was intended to end streaming in Ontario secondary schools and create a system that kept "options open for all students." ${ }^{7}$ In most cases, however, students in applied courses are in different classrooms, have different teachers, and experience a different curriculum. ${ }^{8}$ Data from the Ministry of Education on course selections in 2014 show that 62 percent of students taking applied math were taking three or more applied courses, and that only 11 percent of students in applied math take no other applied courses. ${ }^{9}$ Students are, in effect, grouped into separate tracks.

## THE ASSOCIATION BETWEEN APPLIED COURSES AND LOW-INCOME STUDENTS

The applied/academic system may perpetuate current economic and educational disparities among families. ${ }^{10}$

Demographic data from EQAO, along with 2006 Census data, show that schools with higher percentages of students from low-income families also have higher proportions of students in applied mathematics. ${ }^{11}$ A recent TDSB study found that only 6 percent of students from the highest income neighbourhoods took the majority of their courses as applied courses, compared to 33 percent of students from the lowest income neighbourhoods. ${ }^{12}$

## QUICK FACTS

- $28 \%$ of Ontario's grade 9 students $(38,181)$ take applied mathematics. ${ }^{1}$
- $62 \%$ of students who take applied mathematics take 3 or more applied courses. ${ }^{2}$
- In a Toronto DSB study, only $40 \%$ of students who took applied courses in grade 9 had graduated after five years, compared to $86 \%$ of students who took academic courses. ${ }^{3}$

In 2013, the OECD affirmed that separating students into groups produces lower outcomes for lower-income groups, especially when they are divided from their peers early in secondary school. ${ }^{13}$ The OECD has recommended that education systems should "avoid early tracking and defer student course selections until upper secondary." ${ }^{14}$

## THE LINK BETWEEN APPLIED COURSES AND WIDENING ACHIEVEMENT GAPS

There is evidence that the current course selection system may be exacerbating achievement gaps in secondary school.

In 2013, EQAO reported a 40 percent gap in test performance between students in academic and applied courses. Over the past five years, the percentage of students in applied English who passed the Ontario Secondary School Literacy Test declined from 62 percent to 51 percent. ${ }^{15}$

Applied courses were introduced in secondary schools a number of years ago to offer programming for students with different strengths, interests, needs and learning styles. Student achievement in these courses continues to lag. It's worth reviewing the intent of these courses and how they might better support student achievement.

Bruce Rodrigues, CEO, EQAO ${ }^{16}$

The gap between success in applied and academic courses is also evident when students are followed from elementary to secondary school. Of the students who did not meet the standard in Grade 3 or in Grade 6, and took academic mathematics in grade 9,47 percent met the standard on the EQAO Grade 9 academic mathematics assessment. The results were much different for students in applied mathematics: of the students who did not meet the standard in Grade 3 or in Grade 6, and took applied mathematics in grade 9 , only 30 percent met the standard. ${ }^{17}$

## CHOOSING A LIFE PATHWAY AT A YOUNG AGE

Students in grade 8 are at an age when many "physical, social and emotional processes are in flux and formation." ${ }^{18}$ Between early adolescence and graduation from secondary school, young people undergo many changes in interests, needs, and career aspirations. Requiring students as young as thirteen to make course choices may set some of them on pathways that will not align with the career and life goals that might emerge as they move through secondary school.

Grade 8 course selections also seem to conflict with the Ministry's stated goals in its Creating Pathways to Success policy. The policy articulates the need to empower students and help them "respond to the realities of a complex, rapidly changing world;" ${ }^{19}$ however, students are expected to make decisions before they have any experience with secondary school life and the opportunities that are available to them.

## RECENT INITIATIVES: SUCCESS COMBINING APPLIED AND ACADEMIC

A small number of schools in Ontario have delayed early course selection by combining applied and academic courses in grade 9. In our annual report last year, we highlighted a program at the Granite Ridge Education Centre, a small K-12 school near Kingston, which successfully incorporated all applied math students into academic math. Notably, teachers reported improved student behavior and time on task in the grade 9 academic math class. ${ }^{20}$ After the change, 89 percent of Granite Ridge's students writing the grade 9 math test achieved the provincial standard or higher, compared to the Limestone DSB at 82 percent, and the province at 84 percent. ${ }^{21}$

> One of our most exciting statistics when we look at cohort data for the students that were in the [academic math] course last year (now in grade 10)-of our students that met the provincial standard in grade 9 academic math, $59 \%$ of them had not met the provincial standard in grade 6 math. So we saw a large percentage of these kids increase their numeracy skills.

Heather Highet, Granite Ridge Education Centre

The success of the initiative at Granite Ridge offers key insights and learning for potential province-wide efforts aimed at delaying secondary school course selections.

## NEXT STEPS

Ontario's education policy states that the system should keep "options open for all students." The reality is that forcing students as young as 13 years old to choose between two paths through school closes many options. In particular, it may disadvantage our most vulnerable students. We strongly recommend delaying course decisions involving academic and applied courses to a later point in secondary school.

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