Ministry of Education

Student Success Initiatives

Background

The Ministry of Education (Ministry) administers publicly funded education in Ontario and is generally responsible for developing the curriculum, setting requirements for student diplomas, and providing funding to school boards. Currently, Ontario has 72 publicly funded school boards, of which 70 have secondary schools, with more than 700,000 students attending some 900 secondary schools. Since 2003, the Ministry has implemented a number of initiatives to help Ontario's secondary school students graduate with a high school diploma. Together these initiatives comprise Ontario's Student Success Strategy. The strategy's overall objective was to have 85% of high school students achieve a secondary school diploma by the end of the 2010/11 school year.

A 2003 report commissioned by the Ministry titled Double Cohort Study concluded that at least 25% of Ontario students who began grade 9 in 1998/99 would leave school without a high school diploma. The graduation rate at the time stood at 68%. The report further pointed out that if a student was falling behind by one credit in grades 9 or 10, he or she was at risk of dropping out. Using that criterion, at the time, 27% of the students who had completed grade 9 and 40% of grade 10 students were at risk of not graduating because they lacked at least one course credit.

These statistics prompted the government to establish the Student Success Strategy to improve student achievement and dramatically reduce the dropout rate. The strategy helps students tailor their education to individual strengths, goals, and interests, and encourages students who have left school to return and complete their diploma. To earn an Ontario Secondary School Diploma, students must successfully complete 18 compulsory and 12 optional courses, complete 40 hours of community involvement, and pass the grade 10 provincial literacy test or course.

The Ministry's Student Achievement Division holds the primary responsibility for developing, implementing, and monitoring Ontario's Student Success Strategy. Approximately 50 full-time division employees are involved in the delivery of the Student Success Strategy, including operational and administrative staff. School boards and schools are responsible for the delivery of student success initiatives. Every board receives funding for one student success leader to help implement program initiatives in its schools and funding for one student success teacher per secondary school, who is responsible for providing supports to students at risk of not graduating. In addition to per student funding provided for student success

teachers, in the 2010/11 school year, the Ministry provided almost $130 million to school boards for the delivery of student success initiatives.

Audit Objective and Scope

The objective of our audit of the Ministry's Student Success Strategy was to assess whether the Ministry, selected school boards, and schools had adequate procedures in place to:

- identify students at risk of not graduating and develop and implement initiatives to address their needs;
- ensure that transfer payments are spent for the purposes intended and allocated based on student needs; and
- measure and report on the strategy's effectiveness in increasing the number of students that graduate and are adequately prepared to pursue post-secondary education, apprenticeship, or employment.

Senior management reviewed and agreed to our audit objective and associated audit criteria.

Our audit work was conducted at the Ministry's head office, primarily in the Student Achievement Division, which is responsible for carrying out the Student Success Strategy, as well as at selected school boards and a sample of secondary schools in these boards. The boards we visited were the Lambton Kent District School Board, the Simcoe County District School Board, and the Toronto Catholic District School Board.

In conducting our audit work, we reviewed relevant legislation, policies, and procedures, and met with the appropriate ministry staff. We also met with school board staff, including principals and teachers. We researched related practices in other jurisdictions and solicited the opinions of faculty at universities and colleges about the level of preparedness of graduates from Ontario's secondary school system. Our audit also included a review of relevant activities of the Ministry's Internal Audit Services Branch. We reviewed the branch's recent reports and considered its work and any relevant issues it identified in planning our work.

Summary

The Ministry set an overall objective whereby 85% of secondary students would graduate with a high school diploma by 2010/11. Based on the reported graduation rate, steady progress has been made toward achieving this goal: the graduation rate stood at 81% in the 2009/10 school year compared to 68% in 2003/04. Further refinements may be needed to the initiatives under way to ensure that the Ministry's objective can be met and that graduating students have acquired the knowledge and skills needed for successful post-secondary study or employment. Some of our more significant observations regarding the delivery of the Student Success Strategy were:

- Overall, we found that the school boards we visited did a good job of identifying and providing supports to individual students considered at risk of not graduating. The boards and schools track risk factors such as gender, absenteeism, and course success to help identify students at risk. Although the boards we visited targeted most programming to individual students at risk, some other jurisdictions have found that more formally targeting supports to higher-risk groups of students based on such risk factors as ethnicity, disability, or economic status can be very effective in improving graduation rates. For example, targeted programming in one U.S. high school resulted in a 92% graduation rate for African-Americans far exceeding the statewide average of 67% for this group.
- The Ministry's reported graduation rate is based on calculating the percentage of grade 9 students who graduate within five years. However, the graduation rate would have been

72% had only four years of high school been considered, which could provide a measure for how well schools have delivered the curriculum. On the other hand, the graduation rate would have been 91% if the Ministry reported the overall graduation rate by the time students reach the age of 25, which would provide a better picture of the number of people in Ontario who have achieved at least a high school education.

- The Ministry and school boards are collecting useful information, such as credit accumulation rates, needed to identify students at risk of not graduating at an early stage and to track their progress as student success initiatives are implemented and additional supports are provided. In the absence of any provincial testing beyond the grade 10 literacy test, the Ministry relies primarily on tracking changes in the graduation rate to measure the success of the strategy. However, unlike EQAO results, graduation rates are not publicly available by board, and school boards do not yet use a consistent method of calculating their graduation rates to allow meaningful comparisons across the province. Better information is also needed on graduates' level of preparedness for post-secondary studies and employment.
- For the 2010/11 school year, a student re-engagement initiative encouraged more than 5,000 students to return to school to get their diploma, but in some cases the 40 hours of community involvement was the only outstanding requirement to graduate. At one of the boards we visited, a school had implemented a program to help students complete their community involvement hours and, in the second year of the initiative, one-half of the grade 9 students had already completed this requirement. Furthermore, this school found that these students generally continued to participate in community activities, accumulating hundreds of community involvement hours.
- We noted situations where the Cooperative Education program documentation did not clearly demonstrate the link between the work placement and the associated curricular expectations as required. Cooperative education allows students to earn secondary school credits through a work placement related to a ministry-approved course. For example, students earned credits working in a wide range of placements, such as clothing stores, fast-food outlets, coffee shops, municipal planning offices, television studios, and laboratories. We found many examples where we questioned whether the placement was directly related to the students' in-class curriculum learning expectations.
- Over the past two school years, 2009/10 and 2010/11, $15 million of the $245 million the Ministry provided to school boards for student success initiatives was allocated based on a direct assessment of student needs. Much of the funding was allocated based on the number of students enrolled in each board or based on applications submitted by boards. Although a considerable amount of this funding is ultimately used to support students at risk, it was not necessarily targeted to the boards, schools, and students most in need of support. For example, a board with 81% of its students on track to graduate received $240 per student, while a neighbouring board with only 69% of its students on track to graduate received less than half this amount. We were advised that the majority of the funding disparity was due to different degrees of board participation in programs funded through applications.
- We found that the boards we visited properly accounted for Student Success funds received. However, in the last two school years ending in 2010/11, Ontario school boards received a total of nearly $8 million in unexpected funding late in the school year that had to be spent by year-end. Such late payments make

it difficult to effectively use this money, and some boards purchased items that schools did not necessarily need at the moment, such as more tools and more modern equipment.

OVERALL MINISTRY RESPONSE

We respect the recommendations of the Auditor General and have given careful consideration to their implementation. The Ministry of Education has three goals: to increase student achievement; to reduce gaps in achievement among students; and to increase public confidence in publicly funded education. Together with educators across the province, we place considerable importance on using research and outcome-based evidence to pursue these goals more effectively. The Auditor's report on the Student Success Strategy makes an important contribution to that effort.

The report points to areas of commendable practice as well as some specific areas for improvement. It points to school board practices that should be shared more widely. It supports the Ministry's and school boards' practices of collecting performance data and reporting on key indicators of progress. It supports our increased collaboration with the secondary education and post-secondary education and training sectors, and employers. It notes the progress made in increasing the graduation rate in Ontario and encourages our ongoing review of student success over a range of variables and time frames. Finally, it reinforces our commitment to policy and program assessment and affirms the importance of our ongoing program refinement to ensure that ministry and school board resources are collectively deployed to best meet student needs.

Detailed Audit Observations

MEASURING AND REPORTING ON STUDENT OUTCOMES

Student Success Indicators

The Student Success Strategy is a broad, province-wide strategy designed to ensure that students successfully complete their secondary schooling and reach their post-secondary goals. In 2005, the Ministry set a target of an 85% graduation rate by the 2010/11 school year. As noted in Figure 1, the graduation rate has been steadily increasing, from 68% in 2003/04 to 81% in 2009/10.

In addition to monitoring the provincial graduation rate, the Ministry collects information known as student success indicators to measure and evaluate student progress and to assess its Student Success Strategy. These indicators are based upon research conducted by the Ministry and other studies that highlight the factors that may eventually result in students leaving school without a diploma. Some of the other indicators collected by the Ministry are credit accumulation rates, compulsory course pass rates, and Education Quality and Accountability Office (EQAO) test results.

The EQAO administers a province-wide grade 9 mathematics test and the grade 10 Ontario Secondary School Literacy Test (OSSLT). The EQAO reports publicly the results of these tests on a provincial, board, and school level. The grade 10 literacy test is

Figure 1: Ontario High School Graduation Rates (%)
Source of data: Ministry of Education

School Year	
2003/04	68
2004/05	71
2005/06	73
2006/07	75
2007/08	77
2008/09	79
2009/10	81

the last independent province-wide assessment of performance that secondary students are given.

Although the Ministry publishes grade 10 credit accumulation rates by board, it does not publish graduation rates by board, nor has it established specific goals for any of its student success indicators. Establishing goals for individual indicators and measuring progress toward those goals at the school, board, and provincial levels can provide early warning signs that intervention may be required.

Internally, the Ministry assembles board data reports on key indicators along with provincial averages. While the boards did not use these indicator data reports for analytical purposes, they did use them to verify and reconcile their own data and to compare them with provincial averages. However, with the exception of shared grade 10 credit accumulation data, boards and schools cannot assess where they stand in relation to comparable boards and schools in other parts of the province.

On a broader level, since the 2009/10 school year, boards have been expected to prepare overall improvement plans for their secondary schools, with clearly defined performance targets, intended strategies to achieve those targets, and relevant timelines for reporting on results. Ministry monitoring of these plans involves discussions with senior board staff three times a year regarding progress toward achieving targets, lessons learned from the past year, and strategies to be implemented in the future.

We reviewed a sample of school board improvement plans and noted that although some had common goals, the Ministry did not integrate them into an overall strategy. For example, most boards adopted the provincial graduation rate targets, but there was no attempt to outline how each board would contribute to achieving the overall goal of an 85% graduation rate. Only one of the three boards we visited established specific and measurable targets related to credit accumulation and graduation rates.

We noted some other jurisdictions that had more rigorous accountability and transparency structures for their education ministries and individual school boards (authorities, districts) through formalized annual reports with long-term plans that included performance indicators and targets. Alberta, for example, uses a common and consistent set of performance measures where school authorities' performance measures are aligned with province-wide goals. Alberta also reports on additional performance measures such as annual dropout rates and post-secondary transition rates, while British Columbia requires its districts to outline how their strategies will be adjusted when targets have not been met.

Graduation Rate Calculation and Reporting

The Ministry's method for calculating the graduation rate is based on a cohort approach that measures the percentage of students who graduate with an Ontario Secondary School Diploma within five years after starting grade 9. There are some gaps inherent in the calculation such as not having the information to include students who may have graduated outside Ontario. Also, students may have left school and returned to finish their diploma in a year beyond the five years from when they started grade 9.

Many factors need to be considered in deciding how best to calculate a graduation rate. Each methodology has advantages and disadvantages, and no method will produce a statistic that is ideal for all purposes. Although the high school curriculum has been designed so that it can be completed in four years, the Ministry has selected the five-year cohort rate as the official measure of student success. Reporting the four-year cohort rate would provide an assessment of how many students have completed the curriculum—and how often schools have delivered the curriculum to students—within the four-year time frame. Also, another measurement such as reporting an overall high school graduation rate by a certain age—say, 25—would provide a better picture of the number of people in Ontario who

have achieved at least a high school level of education. (See Figure 2.)

Two of the school boards we visited calculate multiple graduation rates such as four-year, five-year, and six-plus years to provide a broader picture of their performance. While the boards may calculate such rates, none of the ones we visited publish their graduation rates, although some of this information can be found in their board improvement plans.

Furthermore, each of the school boards we reviewed utilized a different method for calculating its graduation rate. They ranged from variations of the Ministry's cohort method to not basing the calculation on a cohort at all. Therefore, even if graduation rate information were available, it would be misleading to use it to compare board or school graduation rates across the province.

In addition to monitoring graduation rates, we noted a school board that gathered, at both the board and school level, other graduation-related statistics such as:

- how many students attained their diplomas within four years;
- how many students transferred elsewhere for educational purposes;
- how many students did not return in the fall but received a diploma subsequently; and
- the percentage of students who left the education system without graduating.

This particular board felt that using different rates and breaking down those rates provided it with data useful in implementing the student success initiatives, as well as a more complete picture of student activity regarding graduation. The fact that school boards are taking it upon themselves to complete this type of evaluation shows its usefulness and demonstrates the value of doing such analysis consistently and province-wide.

In October 2009, the Ministry established a working group to review the calculation of board graduation rates. The group agreed upon a number of factors relevant to determining school board–level graduation rates, including standardized calculations that are consistent with those used to determine the provincial cohort graduation rate. However, the group did not consider the calculation and reporting of graduation rates for individual schools. Still, there was agreement that further detail should be provided concerning students who did not graduate, such as gender and immigration status, for planning and program development purposes. The last meeting of the working group took place in March 2010, although the Ministry informed us that a new committee was to be convened in September 2011.

Figure 2: Differing Ontario High School Graduation Rates (2009/10 School Year) (%)

Source of data: Ministry of Education and Statistics Canada

Rate	Calculation Method
72	four-year cohort graduation rate
81	five-year cohort graduation rate
91	overall graduation by age 25*

* based on survey data

We noted other jurisdictions that publicly report detailed board-level and school-level graduation and dropout rates as part of their accountability requirements. For example, Saskatchewan reports a completion rate for each year ranging from students who graduate in three years or less to those who spent eight or more years to achieve their diploma. Similarly, Alberta reports three-, four-, and five-year completion rates. Furthermore, Alberta reports the number of students who dropped out or continued in school but did not earn a diploma.

Student Success Data Collection

In addition to Student Success Strategy funding, the Ministry has provided more than $120 million from the 2004/05 to the 2010/11 school year in funding to enhance the capacity of schools and school boards to use data and information for evidence-based decision-making to improve student achievement. In our audit, we noted that each of the three school boards we visited had a student information management system purchased from

a third-party vendor. These systems collected data and had the ability to produce board-, school-, and individual student-level reports, and to track and monitor student performance data for subsequent analysis. Although the Ministry has attempted to help build systems capacity at the board and school levels, a more province-wide approach might be more cost-effective given the similarities in the functionality of student information management systems.

As noted earlier, each school board reports data to the Ministry on student achievement as well as attendance and biographical information, including country of birth and first language spoken at home. We found that the Ministry had a thorough process in place for ensuring that data collected by schools and school boards are verified so that the risk of inaccurate information is minimized.

With the completion of Ontario School Information System (OnSIS) submissions by boards, indicator data can be finalized for internal decision-making and external reporting purposes. However, data are usually not finalized for more than six months after the submission date, because not all boards submit data on time. Consequently, the Ministry provides boards with preliminary data to be used for analysis and program planning purposes.

At each school board visited during our audit, we found that data had been verified prior to upload and sign-off for OnSIS. We also noted some practices aimed at enhancing the efficiency of this process, such as having built-in system verification that is run nightly to flag potential errors to initiate the ongoing correction of data. We also noted that one board provided release time for school staff to visit the board office to verify data and correct errors, an approach that assisted in the timeliness of data submission. All boards we visited conducted workshops and training sessions on data preparation and verification. One of the school boards also conducted internal enrolment reviews to ensure the reliability of its data.

Tracking Students after High School

The Ministry has had to undertake surveys to assess the success of its initiatives in preparing students for apprenticeships, college, university, and the workforce because it is not possible to track students beyond high school, as information regarding graduates is not readily available through its current systems.

The Ministry and the Ministry of Training, Colleges and Universities are working with colleges and universities to facilitate the use of the Ontario Education Number as the common student number for students from kindergarten to college/university graduation. This project has a target date for implementation in 2012. The current plan is to eventually include other government-sponsored employment training programs and apprenticeships in the project. However, the project does not include extending the use of the Ontario Education Number to private career colleges.

Information such as career choices, university/college enrolment, post-secondary marks, and credentials and qualifications earned could help to evaluate the success of ministry initiatives and assess how well former students are performing after high school. Additionally, examination of student data related to students' performance in post-secondary pursuits, such as college, university, or apprenticeships, could help provide a better understanding of the knowledge gaps and skills required to be successful in a post-secondary setting.

British Columbia uses a common identifier number to track and report on graduating students' post-secondary destinations for up to seven years after high school graduation. California also uses a common identifier, and its post-secondary institutions report back to high schools on curriculum areas where students were not sufficiently prepared. Meanwhile, in Florida, an information system allows for the tracking of students from the time they first enter school until they enter the workforce.

RECOMMENDATION 1

To help the Ministry of Education (Ministry), school boards, and schools generate timely data for decision-making purposes that are consistent and comparable, the Ministry and the province's school boards should:

- set reasonable targets for graduation rates and student success indicators in line with overall provincial goals and require more formal reporting on the achievement of these targets at the provincial and school board levels;
- develop a common method for school boards to calculate and report graduation rates and other student success indicators;
- help school boards share best practices that would assist in the more timely verification and submission of student data;
- consider collecting information on high school graduates to identify any gaps in knowledge or skills that may require attention; and
- extend the use of the proposed student identifier number to include private career colleges.

MINISTRY RESPONSE

The Ministry agrees that consistent, comparable data are required for decision-making purposes and will work with school boards to identify and share effective data collection and verification practices. This work can then be used for decision-making processes such as establishing reasonable targets for board graduation rates, creating common calculation and reporting methods, and monitoring students as they progress into their chosen post-secondary pathways. The Ministry will also continue to work with the Ministry of Training, Colleges and Universities to extend the student identifier number to apprenticeships, colleges, government-sponsored employment training programs, and universities, and will explore the feasibility of extending it to private career colleges.

STUDENTS AT RISK OF NOT GRADUATING

Identifying Individual Students at Risk

Students who are socio-economically disadvantaged, as well as those who have behavioural traits such as high absenteeism and those from certain cultural backgrounds, are more likely than other students to experience difficulty in school and drop out. Studies also have shown that students at risk of not graduating benefit from early identification and intervention.

For example, credit loss has been identified as one of the biggest factors affecting graduation rates. A 2009 study of Ontario students noted that one failed course in grade 9 reduces by more than 20% an Ontario student's chance of graduation within five years. One U.S. city noted that only 28% of its students who were off-track for required courses in grade 9 graduated from high school within five years.

Overall, we found that the school boards we visited did a good job of identifying and providing supports to individual students considered at risk of not graduating. In general, the boards had effective transition programs for students moving from grade 8 to their first year of high school in grade 9. In the three boards we visited during our audit, grade 8 teachers along with a high school student success teacher prepared detailed student profiles to be passed on to the student's grade 9 teacher. The student profiles contain information regarding academic learning skills, at-risk behaviours, strengths, needs, and suggested learning strategies.

The boards also had processes to identify at-risk students and assigned each student to a high school staff member (Student Success teacher, guidance counsellor, regular teacher) to help them with any difficulties. In addition, two boards established

peer mentor programs to help guide these students through their first year of high school.

Although each of the school boards we visited varied slightly in its approach, all boards identified at-risk students based on indicators such as credit accumulation, grades, attendance, suspensions, and EQAO results. In addition, one school board produced reports that broke down the number of students considered significantly at risk, moderately at risk, and on track. The school's Student Success Team would then work out strategies to assist the identified students at regularly scheduled meetings.

School boards are required to report the number of at-risk students to the Ministry three times per school year so it can track these students on a provincial level. These reports also include what strategies are being used to keep the students in school, such as being assigned a high school staff member, having a strength-and-needs-based student profile, and establishing an education and career pathway. The Ministry does not formally compile these board reports, but it does prepare some provincial trend analyses.

The Ministry has provided a common at-risk definition for grades 11 and 12 that boards are required to use. For grade 9, boards use their own definitions, and for grade 10, boards use credit loss and other locally determined factors to identify at-risk students. Note that Figure 3 shows a significant drop in the number of at-risk students in the later grades as compared to grades 9 and 10. However, it is not possible to determine if this drop is due to differing school definitions and methodologies or if early interventions are successful in reducing the number of at-risk students.

Identifying At-risk Groups

Academic research into Ontario's education system has identified some groups of high school students more at risk of not graduating than others. For example:

- Male students are less likely to graduate than females.
- Students from certain linguistic groups are less likely to graduate and go on to post-secondary education than others.
- Rural and Northern Ontario students are less likely to apply to and register in post-secondary education than urban and southern Ontario students.

Despite this evidence, information on graduation rates is not differentiated by sub-categories. However, the Ministry does track certain gaps, such as by gender, through its student success indicators.

One further step in identifying student groups at risk of not graduating involves extracting data based on factors such as ethnicity and language spoken at home. Although this is considered a sensitive issue, programs in other jurisdictions have found that supports targeted to specific ethnic groups can be constructive, because these types of data can help guide program planning and delivery. For example, targeted programming in one U.S. high school resulted in a 92% graduation rate for African-Americans, far exceeding the state-wide average of 67% for this group.

One such initiative reported by the Toronto District School Board in January 2011 studied achievement test scores and completion-of-graduation requirements for self-identified students from Latin America who speak Spanish at home. The report noted that 40% of these students left high school before graduation. The report also noted that it was the first time that any Canadian school board had collected and extracted achievement data

Figure 3: Percentages of Students at Risk of Not Graduating (2009/10 School Year) (%)

Source of data: Ministry of Education

Grade	
9	23
10	21
11	13
12	17
12+*	18

* Includes students still in secondary school and not having graduated after four years.

based on students' self-identified ethno-linguistic background. As a consequence, the board reported that, among other initiatives, it would implement cultural sensitivity classes for teachers, offer support programs for newcomers, and in some cases give students from lower-income households part-time jobs at their school.

Currently, data collected by the Ministry in the Ontario School Information System (OnSIS), mainly through student registration forms, include language first spoken, residence status in Canada, year of entry into Canada, and country of birth. Although the Ministry informed us that it is not currently possible to accurately calculate student success indicators by various groups, one of the school boards we visited did sort key student indicators by attributes such as country of origin and language spoken at home.

Other jurisdictions have also managed to report indicators based on various student groups. British Columbia, for example, has reported that 76% of its students who speak East Asian languages graduated and went on to post-secondary education. It has also broken this group into different East Asian national backgrounds/countries of origin and calculated graduation rates accordingly.

Identifying Early School Leavers

Tracking and analyzing why students leave school before they graduate helps boards to establish more timely and effective programs and supports to assist students at risk before they drop out. Schools record why students drop out of the education system through the use of a series of pre-established destination or exit codes.

We analyzed the total number of recorded exits for the four school years beginning in 2006/07 on a board-by-board basis. Many students were coded as unknown because school boards and schools were unsure where the students went or for what reason. In addition, a large number of dropouts were coded as "other," a category used when there is no specific code for the reason that the student left school. We concluded that such coding lacks any useful meaning and cannot be used for any constructive analysis of why students drop out of school and what might be done to help keep such students in school.

To assess the overall success of programs to help keep students in the education system, other jurisdictions such as Alberta calculate an annual dropout rate for students aged 14 to 18. However, the Ministry informed us that it does not calculate a dropout rate because of methodology concerns such as accounting for students who leave the province or who leave and return to school several times.

RECOMMENDATION 2

To help identify students and student groups at risk of not graduating who may benefit from additional and specific supports and programs, the Ministry of Education and the province's school boards should:

- establish a common definition for reporting grade 9 and grade 10 students considered at risk of not graduating;
- assess the viability of calculating student success indicators by a variety of attributes such as ethnicity, language, and socio-economic status, and consider a system or process for collecting data based on student self-identification; and
- review the processes used to record students who leave school without a diploma so that the reasons students leave school can be determined.

MINISTRY RESPONSE

The Ministry will work toward establishing a common reporting definition of students considered at risk of not graduating to help improve its ability to identify such students. The Ministry will also explore the viability of collecting data on students who self-identify on a variety of attributes, and continue to review and initiate research regarding students who struggle to complete school or leave school early.

STUDENT SUCCESS STRATEGY INITIATIVES

The Ministry has developed a number of initiatives to help keep students in school, re-engage students who have dropped out, and prepare students for post-secondary education, apprenticeship, and employment. For our audit, we reviewed six major ministry Student Success Strategy initiatives.

- Re-engagement—Recent dropouts are encouraged to return to school and complete their high school diploma requirements.
- Cooperative Education—Students earn secondary school credits for taking a job placement that enhances the classroom experience.
- Credit Recovery—Students who failed a course are allowed to pass by working satisfactorily on only those course expectations where the student had been unsuccessful.
- Specialist High Skills Major (SHSM)—This career-focused program of courses allows students to earn related certifications while fulfilling graduation requirements.
- Dual Credit—Students taking college or apprenticeship courses can earn credits for both their high school diploma and post-secondary qualifications.
- Student Success School Support—A limited number of low-performing schools received funds for an additional Student Success leader, a mentor for the school principal, and additional professional development opportunities.

Re-engagement

In August 2010, the Ministry implemented a re-engagement initiative to encourage recent dropouts to return to school and complete their high school diploma requirements. The Ministry calculated that 16,000 fourth-year students left high school in 2010 without graduating but could have completed their diploma requirements with just another year of school. The Ministry provided each school board with a number of students whom boards were required to identify, contact, and attempt to bring back to high school. Boards were also expected to monitor these students' progress toward completing their diploma and to place them in appropriate programs to maximize their chances of success.

As of October 31, 2010, school boards had contacted more than 10,000 such students, and more than 5,000 had returned to school to complete their high school diploma. The boards we visited had put procedures in place to identify, contact, and monitor re-engaged students. Almost one-half of the returning students needed five or fewer course credits to graduate.

In addition to course credits, 25% of the returning students needed to pass the grade 10 literacy requirement, while more than 70% had not completed their 40 community involvement hours. The Ministry informed us that obtaining community involvement hours was the only graduation requirement that some of this 70%—it was unable to provide an exact number—needed to complete.

One board said that many students had not completed their community involvement hours because they lacked the resources or initiative to achieve this requirement on their own. In contrast, there is a significant school focus on passing the literacy requirement, with considerable support provided for students to pass this test.

At one of the boards we visited, a school had implemented an initiative to help ensure that grade 12 students did not leave their community hours requirement to the last minute and jeopardize their graduation. The school encouraged grade 9 students to complete their 40 hours in the first year of high school. The school presented students with various opportunities to obtain their hours through teacher-led activities and encouraged them to volunteer in the community. Before this initiative began, fewer than 10% of grade 9 students had completed their community involvement hours. In the first year of the initiative, 25% completed their community involvement hours, and in its second year nearly half met the requirement. Furthermore, the school found that these students generally continued to

participate in community activities throughout high school, accumulating hundreds of hours.

Overall, the boards told us that re-engagement was a worthwhile and successful initiative because it focused on a targeted group of students that had been largely ignored in the past. The Ministry spent $5.3 million on this initiative in the 2010/11 school year and has allocated another $1.3 million for 2011/12. However, no ministry funding has been committed for future years. One of the boards we visited expressed concerns whether it could sustain this program if ministry funding ceased.

Cooperative Education

The Cooperative Education program allows students to earn secondary school credits through a job placement. In 2005, the program was modified so that up to two cooperative education credits could be counted as compulsory credits, and the program was promoted to students at risk. Cooperative education placements are available in many kinds of work settings, such as hair styling, auto mechanics, television broadcasting, municipal government, and nursing. The program is intended to complement academic requirements and prepare students for the future by providing practical work experience. In the 2008/09 school year, using the most recent available data, there were 72,000 students enrolled in cooperative education who earned 150,000 credits.

For a student to earn a cooperative education credit, which has the same value as any other credit, the job placement must be related to a ministry-approved course that the student is enrolled in or has completed successfully. A student can earn up to two work placement credits for each subject credit. In addition to the work experience hours a student is required to achieve, students are expected to complete a minor classroom component that is designed to relate the placement experience to the curriculum expectations of the related course. Students can earn all 12 optional and two of the 18 compulsory credits required to obtain an Ontario Secondary School Diploma through the Cooperative Education program.

Over the years, the Cooperative Education program has been promoted as potentially helpful to students who are disengaged, returning to school, or experiencing developmental delays. All of the boards we visited had some form of centralized cooperative education program in place.

Generally, co-op teachers are responsible for interviewing students for work placements, finding students suitable jobs, and evaluating performance. In collaboration with the students, these teachers write out the skills students are expected to learn at their placements. However, many of the related reports we reviewed did not clearly document the link between the job placement and the course expectations. In a number of cases, students had earned or were earning credits for working in a wide range of placements, such as clothing stores, fast-food outlets, coffee shops, grocery stores, municipal planning offices, television studios, and laboratories. In many of these cases, we could not assess the merit of the work placements reviewed and whether the placement complemented the in-class experience. In addition, the Ministry and boards informed us that a formal analysis has not been performed to assess the overall suitability of co-op placements in ensuring that students acquire the expected knowledge and skills.

Credit Recovery

The Credit Recovery program is designed to increase student retention by enabling students who have failed a course to earn the credit by repeating only those course expectations where the student had been unsuccessful. Since student performance in the earlier secondary school years is considered critical to future learning, credit recovery is generally directed to grade 9 and grade 10 students. In the 2008/09 school year, more than 17,000 students received 23,600 credits through credit recovery.

When the Ministry introduced Credit Recovery in 2005, it issued a series of memos to guide

implementation. In 2010, the Ministry consolidated these guidelines in a formal policy document. However, we found these guidelines to be general and to provide little specific direction to school staff. For example, there are no guidelines on the maximum number of optional or compulsory courses a student could recover and no minimum percent a student should have received in the original course to be eligible for the Credit Recovery program. The Ministry and boards informed us that the guidelines are intended to be flexible to allow for individual student circumstances.

As a result, we found wide variations in the way the Credit Recovery program was delivered. According to ministry guidelines, a student's evaluation can be based solely on performance in the credit recovery portion of the course or by merging the credit recovery mark with that of the original course. In the schools we visited, we found that the weight assigned to a student's performance in credit recovery relative to the original course mark ranged from 30% to 70%. In other words, in one school the credit recovery work was worth 70% of the student's final mark, whereas in another it was worth only 30%. No documented rationale was provided for the percentage of the student mark awarded for the credit recovery portion of the course.

The subject teacher is required to complete a student credit recovery profile indicating the units, concepts, and expectations not successfully completed. The profile is to be used by the credit recovery teacher to develop a learning plan that should identify the expectations to be covered, the appropriate teaching strategies, and how the final mark will be determined.

We reviewed credit recovery documentation at a number of schools and found that many profiles and plans were not on file, and those that were on file failed to indicate clearly the course expectations that had not been successfully achieved and/or the expectations to be realized in credit recovery. We also found examples where it seemed unclear what work students had performed to pass the course through credit recovery. In one case, a student who had received 24% in a course recovered the credit by completing five expectations. This student had failed 26 of the 31 original course activities, earned a zero in 19 of these activities, and failed the final exam with a mark of 14%. Due to the lack of documentation, we could not assess whether the student met the required expectations for the course.

In 2010, the Ministry initiated a study at five school boards to assess the Credit Recovery program to ensure that students acquired sufficient knowledge to be successful at the next level. The study examined the subsequent performance in grade 10 of students who failed a grade 9 course but subsequently passed the course through credit recovery or by repeating it. Significant differences were noted among the boards in the grade 10 pass rates of credit recovery students versus those who repeated the grade 9 course in its entirety. However, the study ended without drawing conclusions because of concerns with small sample sizes and incomplete data. To address these concerns, the Ministry plans to perform a more comprehensive province-wide analysis of the program.

Specialist High Skills Major

Introduced in 2006, the Specialist High Skills Major (SHSM) program allows students to focus their learning on a specific economic sector while meeting the requirements to graduate from secondary school. SHSM enables students to gain knowledge in various career options such as agriculture, aviation, business, transportation, and mining. The program also helps students prepare for the transition to apprenticeship, college, university, or the workplace. In the 2009/10 school year, nearly one-half of Ontario's 900 secondary schools offered nearly 750 SHSM programs to more than 20,000 students.

School boards submit SHSM applications to the Ministry for funding approval. As part of its monitoring processes, the Ministry requires school boards to submit SHSM student data reports three

times a year. The reports include enrolment, number of credits attempted and earned, and total number of students earning a diploma with an SHSM designation. Based on these reports, the Ministry prepares a summary report that provides boards with information on where they stand in these respects relative to the province. These reports help boards improve their programs. Also, to help evaluate and refine the program, Ministry officials regularly meet with SHSM teachers across the province.

Overall, the Ministry has put some good monitoring procedures and a process in place to evaluate the success of the SHSM initiative. However, the current reporting requirements focus on participation, retention, and credit accumulation rates because information regarding student destinations after graduation is not readily available through the current information systems. The Ministry informed us that, to better assess the success of the SHSM program, the common identifier number that it planned to implement in 2012 would help track students' post-secondary pursuits.

To assess the success of the SHSM program, in November 2010, the Ministry initiated a survey of former SHSM students. For the most part, the results of the survey were positive. Six months after graduating, nearly two-thirds (64%) of SHSM students were registered in a post-secondary program (31% in university, 27% in college, and 6% in an apprenticeship), and nearly 70% of students declared that the program influenced their career and educational plans.

Dual Credit

Introduced in 2006, the Dual Credit program allows students, while they are still in secondary school, to take college or apprenticeship courses that count toward both their Ontario Secondary School Diploma and a post-secondary diploma or apprenticeship certificate. These ministry-approved courses are delivered by publicly funded Ontario colleges.

Dual Credit programs are intended to assist secondary school students in their progress toward graduation and in making successful transitions to college or apprenticeship. The Ministry informed us that the focus of the program was two groups: disengaged students with the potential to succeed and returning students who had left high school before graduating. For the 2009/10 school year, the Ministry reported that 46% of dual credit students were identified as disengaged or as having previously dropped out of high school. In 2010/11, there were almost 13,000 students enrolled in over 400 dual credit programs.

The Dual Credit program is co-funded by the Ministry of Education and the Ministry of Training, Colleges and Universities and managed by the Council of Ontario Directors of Education. Regional planning teams are responsible for the delivery of the program. There are 16 teams across the province, with each team consisting of college faculty and high school teachers. On behalf of their schools, boards submit program applications to their respective regional planning teams. The Ministry, in conjunction with the Ministry of Training, Colleges and Universities and the Council, reviews the applications submitted by the teams and makes recommendations for final funding approval. The Council is responsible for administering the funds to the regional planning teams and monitoring how the money is spent, while the Ministry monitors the success of the program.

The regional planning teams submit student data reports to the Ministry twice a year. The provincial roll-up of these student data reports includes information such as the distribution of students by age and gender, the number of students considered disengaged and underachieving, how many have previously dropped out of high school, and the retention and success rates of the students who participated in the program. The Ministry has also collected anecdotal information from administrators regarding lessons learned and the challenges they have encountered with the implementation of the Dual Credit program, in addition to students' perceptions of its benefits and challenges.

In the 2009/10 school year, the Ministry began requiring the regional planning teams to prepare SMART (specific, measurable, attainable, realistic, and timely) goals for the coming year. The Ministry performs annual monitoring visits with the teams to follow up on the status of the goals from the prior year and to learn about the challenges and successes each team has had with implementing the program. Also, as part of the visits, the Ministry provides regional planning teams with a data package that includes a three-year comparison of statistics such as participation rates, retention rates, and success rates in comparison to the provincial average.

In general, we noted that the monitoring processes in place for the Dual Credit program are far more extensive and comprehensive than for any of the other Student Success programs and in many ways serve as a best practice standard for other ministry initiatives. Although the Ministry has not evaluated the program to determine if participating students are making a successful transition to post-secondary schooling, it did conduct a survey to determine the status of dual credit students six months after leaving the secondary school system. For the most part, the results were positive. Almost two-thirds (65%) of the dual credit students were registered in a post-secondary program (6% in university, 50% in college, and 9% in an apprenticeship), and 77% of respondents declared that the program influenced their career choice and educational plans.

Student Success School Support

In 2008, the Ministry introduced the Student Success School Support initiative targeting a limited number of schools in boards that had a significant number of secondary schools where student achievement was below the provincial standard. The Ministry informed us that the focus was on boards that could make a significant contribution toward meeting the provincial graduation target. Each participating board received ministry funding for an additional student success leader to monitor the initiative, and each principal at the selected schools was assigned a mentor for support. The initiative provided funding to 27 schools in three boards in 2008/09, 67 schools in seven boards in 2009/10, and 85 schools in 14 boards in 2010/11.

In order to identify low-performing schools, the Ministry used student success indicator data from grades 9 to 12. Some of the key indicators included credit accumulation rates, compulsory and optional course pass rates, and province-wide EQAO test scores. Based on these indicators the Ministry identified 170 of the lowest-performing schools.

We reviewed the selection of schools for this initiative in the 2009/10 school year and noted that although three-quarters of the schools selected for funding were in the lowest-performing category, more than 100 of the lowest-performing schools received no funding under this initiative in the 2009/10 school year.

As part of this initiative, funded schools are required to develop an annual School Support Plan. The plan is expected to include SMART goals related to underperforming students. In addition, these plans are to set out the strategies to achieve the plan's goals as well as expected student outcomes. For example, one school had a goal to increase the grade 9 applied mathematics pass rate by five percentage points from 70.2 to 75.2 over the 2010/11 school year. It targeted 36 students and focused on mathematics reading comprehension, vocabulary development, and communicating mathematical concepts. To monitor progress, schools are expected to report to the Ministry six times a year.

To determine the initiative's impact on school performance, the Ministry compiled data on credit accumulation at schools and found that the 27 participating schools in the first year increased their grade 9 credit accumulation by 6.8% and their grade 10 credit accumulation by 5.6% over two years. However, the Ministry performed its analysis on an overall school basis and did not have sufficient information to assess the success of specific students who underperformed. Consequently, the Ministry could not determine whether the initiative was successful in improving student achievement in the target group.

RECOMMENDATION 3

To ensure that student success initiatives increase the number of students who obtain their Ontario Secondary School Diploma and are adequately prepared for college, university, apprenticeship, or the workforce, the Ministry of Education and the province's school boards should:

- assess the re-engagement initiative to determine if the benefits that boards had noted justify the cost of maintaining the program in future years;
- disseminate best practices or guidance for helping students achieve their community service hours before graduation;
- better link work placements in cooperative education with course expectations to ensure that the placements complement the in-class experience as required; and
- assess the Credit Recovery program to determine whether students are achieving the required course expectations, and consider more detailed guidelines to ensure consistent program delivery across the province.

MINISTRY RESPONSE

The Ministry will assess the benefits of the student success initiatives and programs to ensure that they are effective in increasing the number of students who graduate and are adequately prepared for post-secondary pursuits. Included in this work will be the sharing of effective practices and guidelines with school boards, as well as guidance regarding documentation that clearly identifies the linkage between workplace experiences and in-class learning.

STUDENT SUCCESS FUNDING

Over the past two school years ending in 2010/11, the Ministry has provided nearly $245 million ($130 million in 2010/11) to deliver Student Success Strategy initiatives to help secondary school students succeed and graduate with a high school diploma.

Program Funding

As illustrated in Figure 4, two of the Student Success programs—Re-engagement and Student Success School Support—are funded based on student needs. For these programs, the Ministry allocated a higher proportion of funding for lower-performing schools and boards. Such needs-based funding provides resources to the areas where it is most required. Over the past two school years, 2009/10 and 2010/11, $15 million of Student Success funding was distributed based on the Ministry's assessment of student needs. The remaining $230 million was allocated based on student enrolment or based on applications submitted by school boards.

Under enrolment funding, each board is provided with the same amount per student rather than allocating a greater amount to the boards that have a higher percentage of students who need additional help. As a result, such a per student approach does not focus scarce resources on the highest priorities that have been identified.

Similarly, application-based funding is not based strictly on need but is based on board estimates of the number of students to be enrolled in the programs the boards have in place or are proposing to implement. Application-based funding can be a better representation of student needs than enrolment because these programs are primarily developed for students at risk of not graduating. However, application-based funding is still dependent on whether the schools and boards take the initiative to put programs in place to assist students in need of additional supports.

Although much of the funding for enrolment- and application-based programs will ultimately be used to support board-identified students at risk, overall, it would be prudent to target an increased proportion of funding to the school boards that need the most assistance. We noted that based on various indicators, there was a wide variation

Figure 4: Student Success Payments to School Boards ($ million per school year)

Source of data: Ministry of Education

Program [1]	Primary Funding Basis	2009/10	2010/11
Student Success Grants [2]	enrolment	59.6	60.5
math and literacy [3]	enrolment	6.9	7.6
other enrolment-based programs	enrolment	5.1	4.8
Total Enrolment-based Funding		**71.6**	**72.9**
Dual Credit	application	17.2	25.8
Specialist High Skills Major	application	21.1	18.6
other application-based programs	application	1.4	1.2
Total Application-based Funding		**39.7**	**45.6**
Student Success School Support	needs	5.2	4.4
Re-engagement initiative	needs	0	5.3
Total Needs-based Funding		**5.2**	**9.7**
Total All Student Success Programs		**116.5**	**128.2**

1. There is no separate transfer payment amount provided to school boards related to the Cooperative Education and Credit Recovery initiatives.
2. Student success grants are not targeted for any specific purpose but must be spent by boards to assist students at risk of not graduating.
3. Math and literacy funding is primarily provided for professional learning supports for mathematics teachers.

in student needs between boards. For example, when considering grade 10 credit accumulation, a key early indicator of student graduation success, the percentage of students who were on target for graduation ranged from 49% to 92% at the 70 boards with secondary schools.

A further analysis of Ontario board program funding and credit accumulation also revealed little correlation between student needs and funding received. For example, a board where 81% of its students were on track to graduate received $240 in student success funding per student while a second board in the same region, with only 69% of its students on track, received only $98 per student. Most of the funding disparity between the two boards was due to different degrees of board participation in programs funded through applications. Given that other indicators showed similar anomalies, overall funding was often not targeted to the boards with proportionally more students in need of support.

Financial Administration

After reviewing the Student Success financial processes and procedures at the Ministry and at the school boards we visited, our audit found that the boards accounted properly for funds received. In general, the Student Success funding was segregated into separate accounts to help ensure that funds allocated to each initiative were spent on those programs. Overall, there were generally good processes in place to monitor the transfer payments to these school boards to help ensure that funds were spent for the purposes intended or carried over for these purposes to subsequent years. However, we noted some concerns:

- The Ministry could improve its monitoring of board expenditures. For example, we found that some board reports on how funding was spent were based on budgeted rather than actual expenditures. Also, the Ministry did not require the boards to submit any evidence of expenditures that could be subject to periodic verification or certification.
- In the past two school years ending in 2010/11, Ontario school boards received nearly $8 million in unexpected funding for Student Success initiatives late in the school year that had to be spent by the end of the school year. Such payments make it difficult to effectively and efficiently use funds to

address the specific needs of students. Each of the boards we visited welcomed the funds but noted the challenges of finding ways to spend them wisely on such short notice. Consequently, for programs like the Specialist High Skills Major, some boards purchased items that schools did not necessarily need at the time, such as more tools and equipment.

- Two application-based programs, Specialist High Skills Major (SHSM) and Dual Credit, receive funding based on projected enrolments. However, officials in both programs greatly overestimated student participation. Consequently, the programs were overfunded by $3.1 million in the 2009/10 school year. For SHSM, nearly one-quarter of the boards overestimated their enrolment by more than 50% of actual student participation while one-quarter of the Dual Credit regional planning teams over-projected by more than twice the actual enrolment. We observed that one of the boards we visited worked closely with its SHSM schools to come up with a realistic enrolment projection that resulted in a forecast that was off by less than 7%. In the case of the SHSM program for the 2010/11 school year, the Ministry advised boards that there would be adjustments to funding based on substantial differences between the actual and projected student numbers. For the Dual Credit program, overpayments were to be deducted from subsequent years' funding.
- In addition to enrolment projections, SHSM program funding is based on a step-down model that allocates more money in the early years of the program. The logic for this approach is to provide up-front funds for materials and equipment to get the program started. However, several boards informed us that some programs such as construction are more costly and more capital intensive to run on a continuous basis while others cost much less to operate. Some boards we visited expressed concerns over the sustainability of their programs as they need to update equipment and other materials to stay relevant.
- For the Dual Credit program, we found that the regional planning teams applied different funding mechanisms to distribute money to their respective boards and colleges. Some teams worked through the boards to determine appropriate funding, whereas others worked directly with the schools. Funding was benchmarked at a maximum of $200 per student at the board level and $750 at the college level. At the two boards we visited that delivered the program, we found that teams disbursed the benchmark amounts rather than the actual expenditures incurred, which were often less. Due to this and other program issues, the Dual Credit program was overfunded by more than $4.3 million in the 2009/10 school year.
- Student Success School Support initiative funding that was to be used by school boards for professional learning days and effective instruction purposes was overfunded by almost $2 million in the 2009/10 school year. One board we visited informed us that it could not spend all of its program funds because it could not use all the allotted professional learning days. In addition to regular professional development days, the board considered it excessive to provide 137 more days of principal/teacher time for professional learning associated with the Student Success School Support initiative. The Ministry noted that, for subsequent years, the allotment for professional development was to be considerably reduced. Another board we visited did not receive any Student Success School Support funding and was not even aware of the program. Yet, 12 of this board's 18 secondary schools were either low-performing or among the lowest-performing schools in the province.
- In addition to Student Success Strategy funding, boards received approximately $140 million in "demographic funding" for secondary

schools in the 2010/11 school year. This funding is based on school profiles of social and economic indicators associated with high-risk students. Among the indicators are low income, recent immigration, lack of parental education, and single-parent status. However, we found that the allocations to school boards were based on outdated information, as much of the source data were derived from the 1991 and 1996 censuses and Statistics Canada information. In the 2010/11 school year, school profiles were updated with 2006 data, but funding re-allocations were to be phased in over four years to give school boards time to alter their programs and supports to account for the new funding levels. As a result, much of the funding was in effect still based on 15- to 20-year-old data. Finally, the boards visited indicated that there was no specific reporting to the Ministry on the use of demographic funding.

- The Ministry's contract with the Council of Ontario Directors of Education to deliver the Dual Credit program requires the Council to provide externally audited financial statements. However, our audit found that a financial adviser completed the Council's financial reports. Therefore, the Ministry lacked professional assurance that the $17.2 million provided to the Council in the 2009/10 school year had been spent for the purposes intended. (The Ministry subsequently requested that the Council submit audited financial statements.) In addition, the Ministry and the Ministry of Training, Colleges and Universities provided the Council with a total of $700,000 in the 2009/10 school year for program delivery ($335,000) and administrative costs ($365,000), but the Council did not report back on how these funds were used. We also found that most of the program delivery funding was paid by the Council to consultants for implementation advice and guidance to regional planning teams, colleges, and school boards, at a cost of $500 per day. Although the Council was to start up the Dual Credit program, the Ministry was to eventually take over the administrative responsibilities. Therefore, it may now be financially prudent for the Ministry to deliver the program itself.

RECOMMENDATION 4

To ensure that Student Success Strategy funding is spent efficiently to address the specific needs of students at risk of not graduating, the Ministry of Education and the province's school boards should:

- adopt funding methods that target more money for schools and boards where students at risk most need the assistance and work with the boards and schools to better estimate student participation in application-based programs;
- improve existing processes to monitor board expenditures and ensure that overfunding is properly accounted for;
- allocate demographic funding based on the most recent data available; and
- assess the cost and benefits of ministry delivery of the Dual Credit program.

MINISTRY RESPONSE

The Ministry agrees that program funding must be spent efficiently and will continue to work with school boards to ensure that funding effectively reaches students deemed at risk of not graduating and to improve estimates of program participation where necessary. The Ministry also uses enrolment- and application-based funding approaches to support boards' efforts to increase student achievement and reduce gaps in achievement among students. The Ministry will continue to work with school boards to ensure that funding is properly accounted for. The Ministry will assess the feasibility of delivering the Dual Credit program internally.