

## EDMONTON PUBLIC SCHOOLS

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TO: Board of Trustees

FROM: E. Schmidt, Superintendent of Schools

SUBJECT: Alberta Education Diploma Examination Results and District Successful Course Completion Rates

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RESOURCE  
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### INFORMATION

This report provides results of the provincial diploma examinations written during the 2006-2007 school year. The results, which represent a merging of results from the January, June and August examination writings, are taken from data provided by Alberta Education. This report also provides results for the grades 10, 11 and 12 cohorts on successful core course completion rates.

The grade 12 diploma examination program is intended to develop and maintain excellence in educational standards by certifying academic achievement. The program provides examinations in English 30-1 and 30-2, Social Studies 30 and 33, Pure and Applied Mathematics 30, Biology 30, Chemistry 30, Physics 30, Science 30 and French Language Arts 30. All grade 12 students in Alberta are required to write at least two diploma examinations, English 30-1 or 30-2 and Social Studies 30 or 33, to receive a high school diploma. To obtain credit in a diploma examination course, students must write both the multiple-choice and open-ended part of that diploma examination and attain a final blended mark of 50 per cent or higher. The final blended mark is the average of the school-awarded mark and the diploma examination mark.

Successful course completion rates come from classroom awarded marks and represent the percentage of students who stay in a course and pass it in a given year. Data is provided for the entire cohort of district high school students.

The major generalizations with respect to the information included in this report are as follows:

- The percentage of third year high school students in the district who wrote grade 12 diploma examinations increased for English Language Arts, Social Studies, and Mathematics overall compared to 2005-06. The percentage of third year high school students in the district who wrote grade 12 diploma examinations also increased for three out of four Science courses.
- The district has higher participation rates than the province for all four Science courses and for Mathematics overall but lower participation rates than the province for English Language Arts and Social Studies overall.
- The percentage of students meeting the acceptable standard was higher, compared to 2005-06, for seven out of ten diploma examination courses.

- The percentage of students meeting the standard of excellence was higher, compared to 2005-06, for four out of ten diploma examination courses. In three other courses, the percentage meeting the standard of excellence is equal to or only slightly lower than the previous year.
- The percentage of students successfully completing grade 12 core courses was higher compared to 2005-06 in all subject areas and higher than 2002-03 for all subject area with the exception of Mathematics.

### Diploma Examination Participation Rates

One factor to be considered in reviewing diploma examination results is participation rates. Both participation rates and achievement need to be considered together in order to understand the district results. The participation rate reflects the percentage of students enrolled in their third year of high school who complete the course by August 31 of the reported school year. Students may have completed the course in the reported year, or an earlier school year. Regardless of how many times they complete the course, students are only counted as a participant once, in their third year of high school. Since participation rates are for third year students, they reflect the fact that students have been successful in grades 10 and 11 in order to participate.

Table 1 provides information on the 2006-2007 diploma examination participation rates for the district compared to 2005-06 rates.

**TABLE 1  
DISTRICT PARTICIPATION RATES FOR GRADE 12 DIPLOMA COURSES  
FROM 2005-2006 TO 2006-2007**

<b>Diploma Examination Course</b>	<b>2005-2006 (%)</b>	<b>2006-2007 (%)</b>	<b>Difference</b>
English 30-1	58.0	59.7	+1.7
English 30-2	24.7	24.5	-0.2
<b>English Grade 12 Total</b>	<b>82.7</b>	<b>84.2</b>	<b>+1.5</b>
Social Studies 30	54.6	57.4	+2.8
Social Studies 33	27.9	27.6	-0.3
<b>Social Studies Grade 12 Total</b>	<b>82.5</b>	<b>85.0</b>	<b>+2.5</b>
Applied Mathematics 30	19.3	19.4	+0.1
Pure Mathematics 30	48.7	50.3	+1.6
<b>Mathematics Grade 12 Total</b>	<b>68.0</b>	<b>69.7</b>	<b>+1.7</b>
Biology 30	45.7	47.4	+1.7
Chemistry 30	42.9	43.0	+0.1
Physics 30	29.3	28.2	-1.1
Science 30	10.0	11.3	+1.3

Since grade 12 students are typically enrolled in either the academic stream or the alternate stream course of study for English Language Arts, Social Studies, and Mathematics, it makes sense to look at participation rates based on the total for the two streams. A total is not included for grade 12 science courses because many students are enrolled in more than one course. Relative to the previous year, district participation on diploma examinations increased for English Language Arts, Social Studies and Mathematics and for three of four Science courses. It is also encouraging that there is a greater proportion of students participating in the more academically challenging courses in English Language Arts, Social Studies and Mathematics.

Table 2 provides information on the 2006-2007 diploma examination participation rates for the district compared to the province.

**TABLE 2  
DISTRICT AND PROVINCIAL PARTICIPATION RATES  
FOR GRADE 12 DIPLOMA COURSES: 2006-2007**

<b>Diploma Examination Course</b>	<b>Province (%)</b>	<b>EPS (%)</b>	<b>Difference</b>
English 30-1	59.8	59.7	-0.1
English 30-2	26.1	24.5	-1.6
<b>Grade 12 English Total</b>	<b>85.9</b>	<b>84.2</b>	<b>-1.7</b>
Social Studies 30	54.0	57.4	+3.4
Social Studies 33	32.2	27.6	-4.6
<b>Grade 12 Social Studies Total</b>	<b>86.2</b>	<b>85.0</b>	<b>-1.2</b>
Applied Mathematics 30	21.6	19.4	-2.2
Pure Mathematics 30	46.3	50.3	+4.0
<b>Grade 12 Mathematics Total</b>	<b>67.9</b>	<b>69.7</b>	<b>+1.8</b>
Biology 30	43.9	47.4	+3.5
Chemistry 30	38.4	43.0	+4.6
Physics 30	24.0	28.2	+4.2
Science 30	7.7	11.3	+3.6

District participation rates are lower than provincial rates for English Language Arts and Social Studies but are higher than provincial rates for Mathematics and all four Science courses. Although the district's participation is lower than the province for the two courses required for a high school diploma, there were substantial increases in participation last year.

### Diploma Examination Results

With the exception of Science 30, the diploma examinations are now equated making it possible to compare the district results from 2006-07 with the district results from the previous year. Table 3 provides information on the 2006-2007 diploma examination results for the district compared to 2005-06 results.

**TABLE 3  
DISTRICT RESULTS FOR GRADE 12 DIPLOMA EXAMINATIONS  
FROM 2005-2006 TO 2006-2007**

<b>Diploma Examination</b>	<b>Percentage of Students Meeting Acceptable Standard</b>			<b>Percentage of Students Meeting Standard of Excellence</b>		
	<b>2005-2006 (%)</b>	<b>2006-2007 (%)</b>	<b>Difference</b>	<b>2005-2006 (%)</b>	<b>2006-2007 (%)</b>	<b>Difference</b>
English 30-1	87.1	86.5	-0.6	20.2	19.7	-0.5
English 30-2	83.2	86.1	+2.9	8.1	9.7	+1.6
Social Studies 30	87.2	87.3	+0.1	28.1	26.2	-1.9
Social Studies 33	81.9	84.9	+3.0	17.4	19.8	+2.4
Applied Math 30	73.3	71.1	-2.2	10.8	10.8	0.0
Pure Math 30	85.0	82.2	-2.8	31.1	25.8	-5.3
Biology 30	83.3	84.6	+1.3	29.7	29.6	-0.1
Chemistry 30	88.9	89.5	+0.6	38.3	39.1	+0.8
Physics 30	84.3	87.8	+3.5	31.6	31.5	-0.1
Science 30*	82.2	86.1	+3.9	17.9	18.3	+0.4

Overall the district results, compared to last year, are encouraging. For seven out of ten diploma examination courses the percentage of students meeting the acceptable standard was higher compared to 2005-06. The percentage of students meeting the standard of excellence was higher for four diploma examination courses and in three other courses, the percentage meeting this standard was equal to or only slightly lower than the previous year. The district results for grade 12 diploma examinations should be looked at in relation to the participation rates. This data shows promising trends considering that a greater proportion of students in the district are taking the more academically challenging courses in English, Social Studies and Mathematics.

Examining five year trends for the diploma examinations is not appropriate as the majority of these examinations have only been equated for the last two years.

### Successful Completion of High School Core Courses

Successful course completion measures the percentage of students who stay in a course and pass it in a given year. It is calculated by dividing the number of students who pass a course by the number of students registered in a course on September 30 (February 28). This measure is important because it captures the entire cohort of students registered in a core course in a high school in a given year. Diploma examination results, on the other hand, only capture those grade 12 students who are enrolled in diploma examination courses, who stay in the course until the end of the year, and who write the examination.

Table 4 provides information on the 2006-07 successful completion rates for the district compared to 2005-06 and 2002-03 (five year trend). The table combines the percentage of students that successfully complete any course in a particular subject area at a given grade. There is more than one course in each subject area at each grade level. For example, grade 12 English includes students registered in English 30-1, English 30-2 and English 30-4.

**TABLE 4  
DISTRICT HIGH SCHOOL COURSE COMPLETION RATES  
2 YEAR AND 5 YEAR COMPARISON**

Core Subject Areas	Percentage of Students Successfully Completing Courses			Percentage of Students Successfully Completing Courses		
	2005- 2006 (%)	2006- 2007 (%)	Difference	2002- 2003 (%)	2006- 2007 (%)	Difference
Grade 10 English	80.5	81.1	+0.6	76.2	81.1	+4.9
Grade 10 Mathematics	75.0	74.4	-0.6	67.1	74.4	+7.3
Grade 10 Science	79.5	78.2	-1.3	70.1	78.2	+8.1
Grade 10 Social Studies	82.1	83.7	+1.6	76.8	83.7	+6.9
Grade 11 English	84.7	84.0	-0.7	82.7	84.0	+1.3
Grade 11 Mathematics	79.8	79.3	-0.5	77.8	79.3	+1.5
Grade 11 Science	83.2	82.7	-0.5	77.0	82.7	+5.7
Grade 11 Social Studies	85.8	85.4	-0.4	82.0	85.4	+3.4
Grade 12 English	75.6	76.0	+0.4	75.6	76.0	+0.4
Grade 12 Mathematics	73.4	73.6	+0.2	76.9	73.6	-3.3
Grade 12 Science	78.2	78.5	+0.3	73.3	78.5	+5.2
Grade 12 Social Studies	77.9	79.9	+2.0	76.9	79.9	+3.0

The percentage of students successfully completing grade 12 core courses increased in all core subject areas compared to 2005-06. The percentage also increased for two of the grade 10 courses (English and Social Studies). However, there was a slight decline in all four grade 11 subject areas.

The five year trends are very positive. There were substantial increases in successful completion rates for all grade 10 subject areas, a focus for high schools in the district for the last five years. There were also increases in all grade 11 subjects and for three of the four grade 12 subjects. In grade 12 Mathematics there was a decline compared to 2002-03, however, Alberta Education changed the standards for Applied Mathematics 30 in 2005-06. As a province, diploma examination marks declined by about 10% for this course compared to earlier results. This impacted the overall results for grade 12 Mathematics.

Over time, as a greater proportion of grade 10s and 11s successfully completed their courses they were able to participate in grade 12 courses. Given this trend, the increase in successful completions at grade 12 is especially promising.

### **Implications for Action**

The Alberta Education diploma examinations are used as one of the measures to monitor student achievement in the district. District successful completion data captures the whole cohort of students in grade 12 courses. High school staff will continue to be supported as they work towards the implementation of

- strategies in the areas of differentiated instruction, assessment for learning, and technology integration;
- enhanced data analysis procedures;
- strategies to ensure more students successfully complete grade 10 and 11 courses;
- research on the factors that affect high school completion;
- data to support the practice of enrolling higher percentages of students in more academic courses; and
- increased collaboration with community agencies to support high school aged students.

These structures and processes are designed to assist more students to challenge and successfully complete diploma examination courses which will in turn result in increased high school completion rates. These practices have substantially increased the proportion of students participating in appropriately challenging grade 12 courses while continuing to improve successful grade 12 course completion rates in most core subject areas.

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