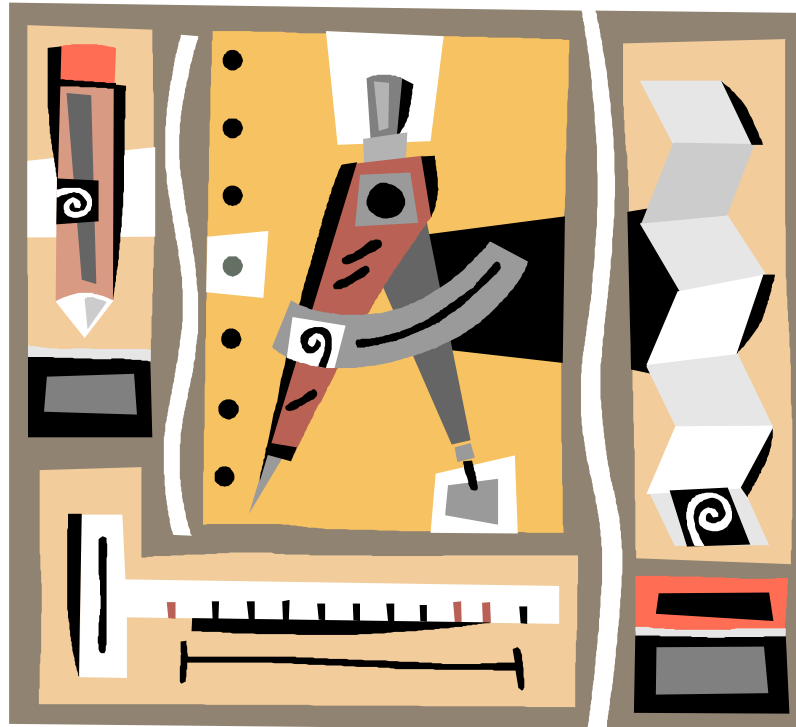




Grade 9 EQAO Assessment of Mathematics 2004-2005

Overview of Results



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Overview of Results

TABLE OF CONTENTS

Grade 9 EQAO Assessment of Mathematics: 2004–2005

Introduction.....	1
What is EQAO?	1
What was the assessment?	1
Who participated in the assessment?	1
How was student work marked?	2
Some key messages about the EQAO assessments	3

Grade 9 EQAO Assessment: Peel and Provincial Board Results, 2004–2005

Background Characteristics.....	4
Student Achievement.....	4
Tables 1 & 2 and Figures 1–6.....	5–12
Summary of Results.....	13

Grade 9 EQAO Assessment of Mathematics 2004–2005

Introduction

This report contains an overview of the 2004–2005 Education Quality and Accountability Office (EQAO) provincial assessment in mathematics for grade 9. Copies of the full *Provincial Report* can be downloaded from EQAO’s web site, which is located at www.eqao.com.

What is EQAO?

EQAO is an independent, arm’s-length agency of the provincial government that provides parents, teachers, and the public with reliable and valid information about student achievement. EQAO reports provide information for improvement, which educators, parents, policy makers and others in the education community can use to improve learning and teaching.

EQAO conducts a range of province-wide assessments. The grade 9 assessment was introduced in 2000–2001. It involves all students, occurs annually, and provides information on what students have learned in mathematics. This assessment provides both individual and system data on student achievement. Parents receive an *Individual Student Report*, and schools and school boards produce local reports for parents and their communities.

What was the assessment?

The grade 9 mathematics assessment measures how well students have met the provincial expectations in *The Ontario Curriculum*. The assessment covers knowledge and skills in mathematics that students are expected to have acquired by the end of the school semester in both academic and applied programs. Specifically, the assessment is based on the four curriculum strands of mathematics: Number Sense and Algebra, Relationships, Analytic Geometry, and Measurement and Geometry. Students enrolled in the applied mathematics program complete a different assessment than students enrolled in the academic mathematics program. Students enrolled in first-semester applied and academic mathematics programs wrote the assessment in January 2005, and students enrolled in second-semester and full-year applied or academic mathematics programs wrote the assessment in May 2005.

Who participated in the assessment?

Peel grade 9 students (9,615) participated in the assessment during regular classes. Exemptions were permitted only where students would be unable to respond to the assessment in any way and/or where they would be adversely affected as a result of participation. Exemptions were made only with the written informed consent of the parent(s) or guardian(s). In specific circumstances, teachers were allowed to provide certain kinds of assistance to students with special needs. Less than one percent of grade 9 students were exempted from the mathematics assessment.

How was student work marked?

EQAO reports on student achievement in mathematics using a four-level scale. The four levels describe how well students performed in each subject area. EQAO has aligned its four levels of achievement to those of the *Ontario Student Report Card*.

Marking was done in July 2005 by specially trained principals and teachers. EQAO developed scoring scales by taking the four achievement levels established by the Ministry and applying them to actual student work. Markers used EQAO's scales to score student work. The scoring was monitored to ensure that it was objective, consistent, and reliable.

The Ministry of Education has set *Level 3* as the provincial standard for grade 9 achievement. *Level 1* identifies achievement that falls much below the provincial standard. *Level 2* identifies achievement that is approaching the provincial standard. *Level 4* identifies achievement that surpasses the provincial standard.

Some key messages about the EQAO assessments

- ✓ EQAO urges principals to ensure that school councils are fully informed about the assessment and are encouraged to play an active role in reviewing and updating the school's Action Plan for Improvement.
- ✓ EQAO encourages schools and school boards to include strategies in their Action Plans for Improvement that will help both boys and girls improve their achievement.
- ✓ Parents, educators, policy-makers, and the public should use the overall results to measure improvements in student achievement over time.
- ✓ EQAO encourages schools and school boards to be proactive in reporting results to parents and their communities.
- ✓ The achievement data must be interpreted in relation to contextual data that schools and school boards have gathered.
- ✓ Teachers and principals should use samples of student work, anchor papers provided by EQAO, and Ministry exemplar documents, to help students and parents understand what work at Levels 3 and 4 looks like.
- ✓ School boards should provide opportunities for teachers and principals to share assessment expertise and successful assessment practices.

Grade 9 EQAO Assessment

Peel and Provincial Board Results 2004–2005

Background Characteristics

- 9,615 Peel grade 9 students (6,916 in academic mathematics; 2,699 in applied mathematics) participated in EQAO testing; less than 1% were fully exempt from the assessment.
- Of those students who took the academic mathematics test, 3% were ESL/ELD learners and 3% were students with special needs. Nine percent of students who participated in the applied mathematics assessment were ESL/ELD learners, and 22% were students with special needs.

Student Achievement

Grade 9 student achievement results for Peel and the province are presented in Table and Figure 1 for academic and applied programs. The percentage of students performing at Levels 2, 3, 4 and Levels 3, 4 are also presented. Figure 2 presents the results of the comparison of student achievement scores between Peel and the province. Figure 3 presents the results of the comparison of Grade 9 student achievement scores from 2001–2002 to 2004–2005. Overall achievement comparisons involving gender, ESL/ELD learners, and students with special needs are also presented in Table 2 and Figures 4 through 6.

Achievement results in this report are expressed as the percentage of students achieving at each level. This percentage is based on all of the students in the grade (which includes the "no data" and "exempt" categories), and for students who participated in the assessment. The overall achievement results in mathematics reported for both the Peel Board and the province may not add to 100%, due to rounding.

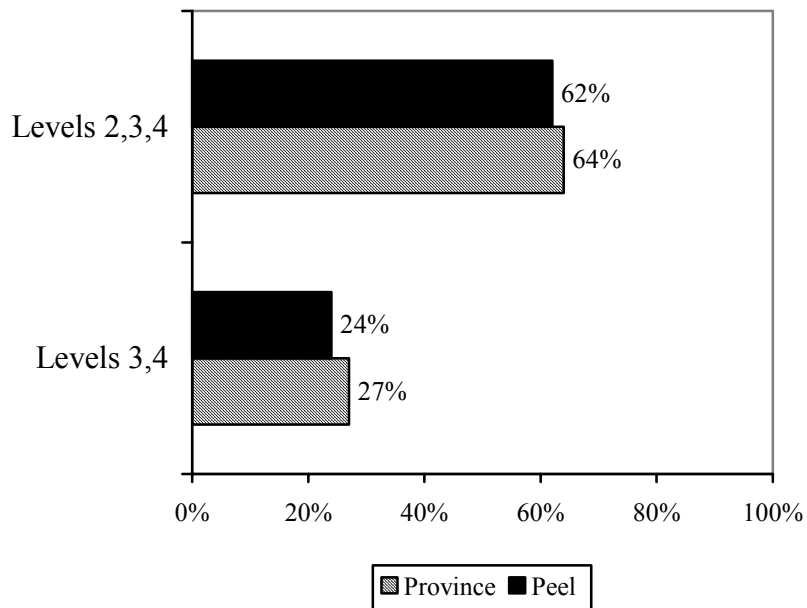
TABLE 1

EQAO 2004–2005 Grade 9 Results: Peel and Provincial Comparisons
 (All Students – Includes Exempt, No Data, Below Level 1)

	Exempt		No Data		Below Level 1		Level 1		Level 2		Level 3		Level 4	
	Province	Peel	Province	Peel	Province	Peel	Province	Peel	Province	Peel	Province	Peel	Province	Peel
Applied Mathematics	1%	1%	6%	5%	10%	11%	19%	20%	37%	38%	26%	24%	<1%	<1%
Academic Mathematics	<1%	<1%	1%	1%	1%	1%	10%	11%	19%	19%	62%	61%	6%	7%

Figure 1

Applied Mathematics - All Students



Applied Math - Participating Students
 (excludes exempt and no data)

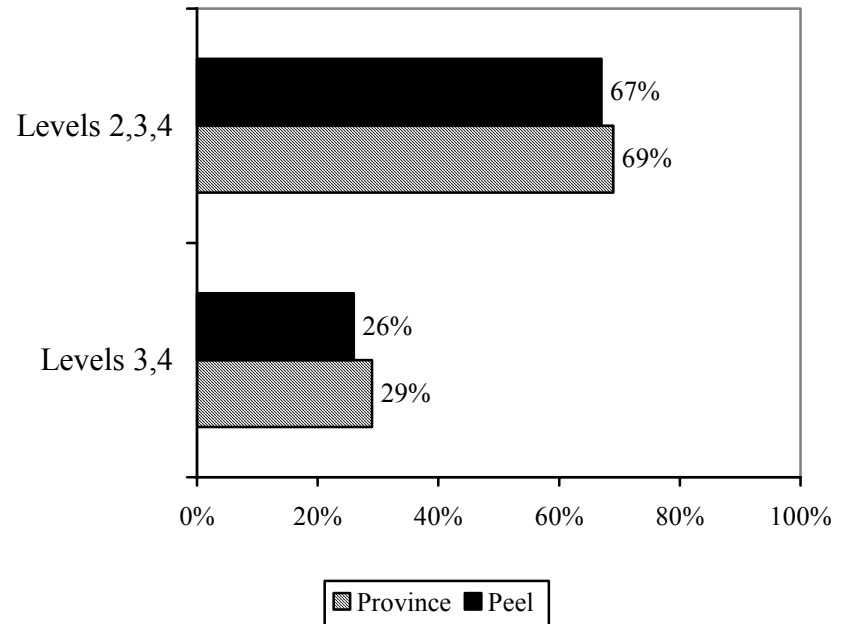
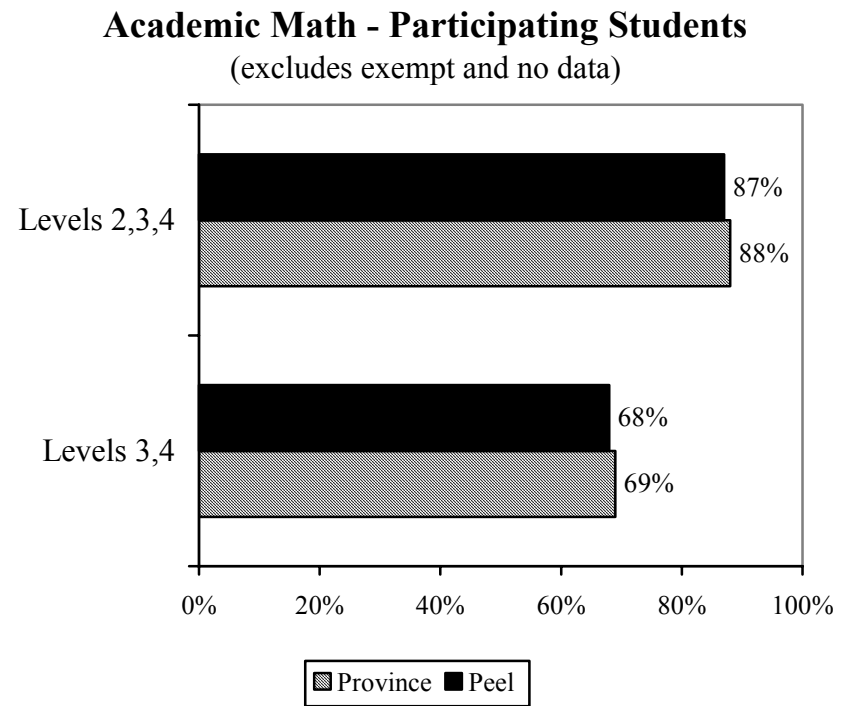
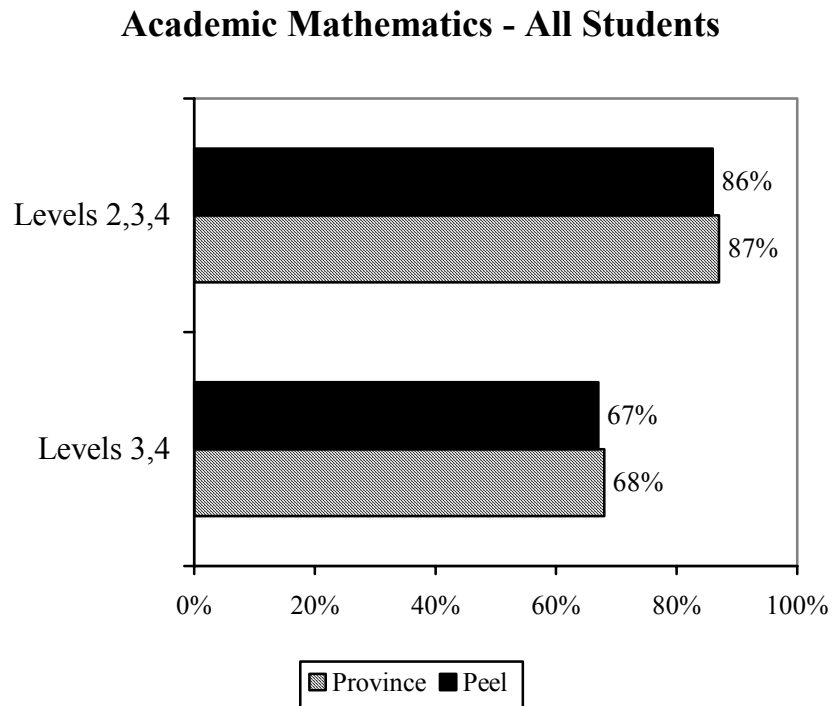


Figure 1 (continued)

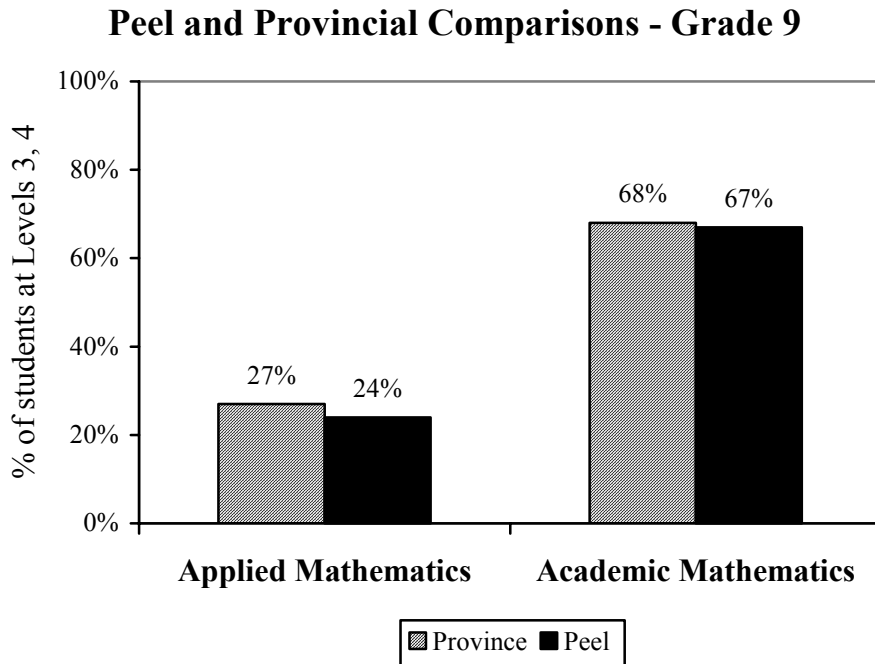


When compared to the province:

- Peel students in grade 9 scored slightly below the provincial average in Levels 2, 3, 4 and Levels 3, 4 for applied and academic mathematics.

FIGURE 2

EQAO 2004–2005 Grade 9 Results: Peel and Provincial Comparisons (All Students – Includes Exempt, No Data, Below Level 1)



When compared to the province:

- Peel students in grade 9 scored below the provincial average in applied mathematics and scored slightly below in academic mathematics.

For Applied Mathematics (Levels 3,4)

Peel students scored:

- 3% lower than the province

For Academic Mathematics (Levels 3,4)

Peel students scored:

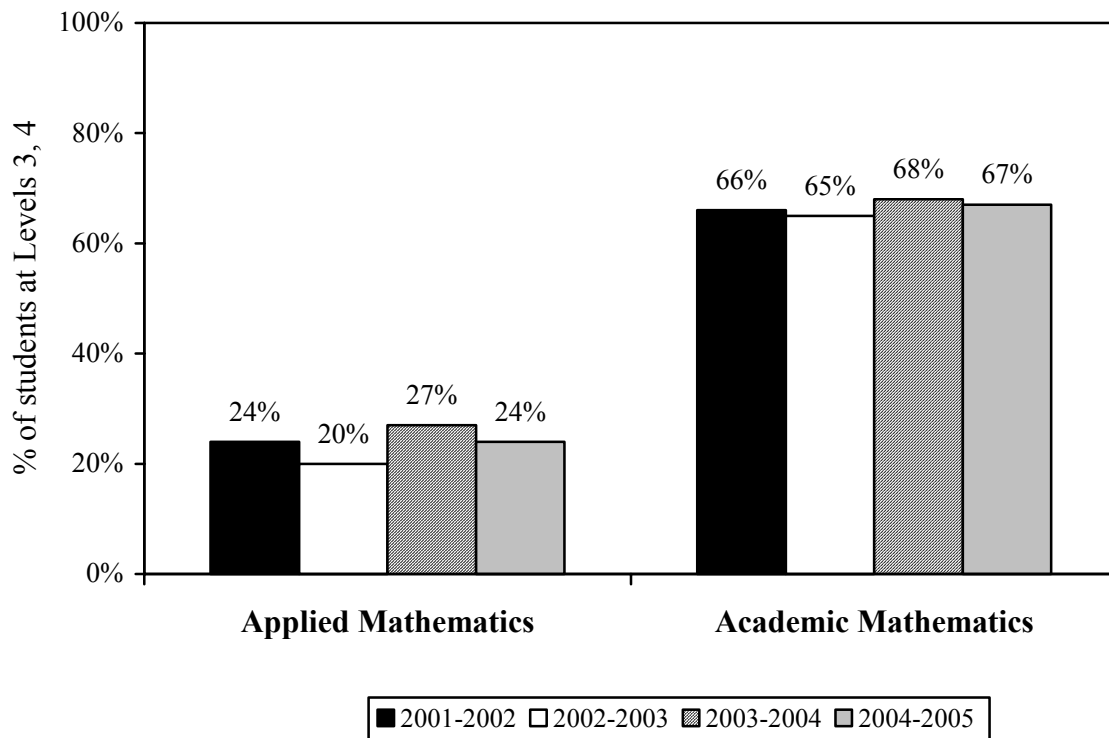
- 1% lower than the province

FIGURE 3

EQAO 2004–2005 Grade 9 Results: Peel Comparisons of Change in Scores from 2001–2002 to 2004–2005 (All Students – Includes Exempt, No Data, Below Level 1)

Levels 3, 4

Peel Comparisons of Change in Scores from 2001–2002 to 2004–2005



When compared to last year's results:

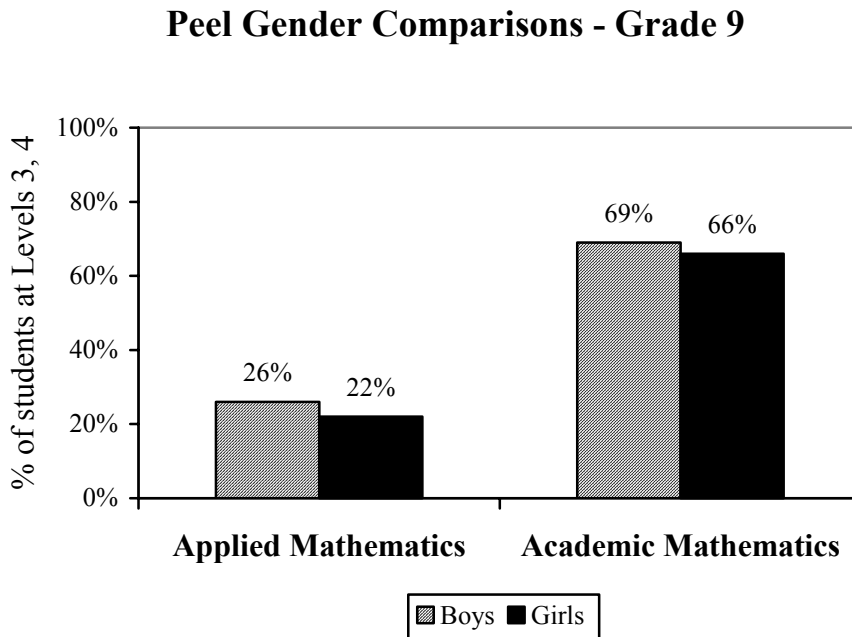
- Peel students scored 3% lower in 2004–2005 for applied mathematics and 1% lower in academic mathematics when compared to 2003–2004.

When compared to 2001–2002 results (four-year trend):

- Peel students scored the same in 2004–2005 for applied mathematics, and 1% higher in academic mathematics when compared to 2001–2002.

FIGURE 4

EQAO 2004–2005 Grade 9 Results: Peel Gender Comparisons (All Students – Includes Exempt, No Data, Below Level 1)



When comparing the results of Peel boys and girls:

- Peel girls in grade 9 scored below boys in both applied mathematics and academic mathematics.

For Applied Mathematics (Levels 3, 4)

Peel girls scored:

- 4% lower than boys

For Academic Mathematics (Levels 3, 4)

Peel girls scored:

- 3% lower than boys

TABLE 2

Gender Gap Analysis – Grade 9 Extent to Which Boys Outperform Girls in Levels 3, 4

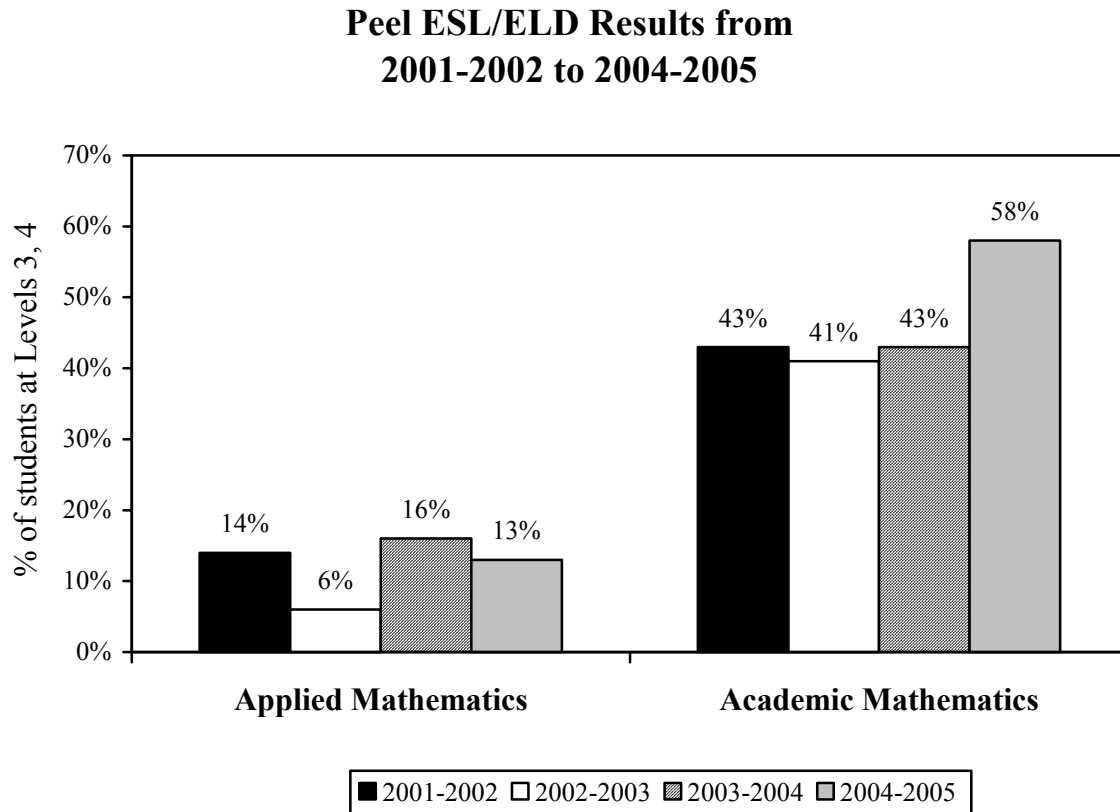
		2001-2002	2002-2003	2003-2004	2004-2005
Grade 9	Applied Mathematics	0%	0%	-1%	4%
	Academic Mathematics	1%	1%	1%	3%

- The gender gap in achievement in both grade 9 applied and academic mathematics has increased slightly since 2001–2002.

FIGURE 5

EQAO 2004–2005 Grade 9 Results: Peel Comparison of ESL/ELD Results from 2001–2002 to 2004–2005

Levels 3, 4



When compared to last year's results (2003–2004):

- Peel ESL/ELD students scored 3% lower in 2004–2005 for applied mathematics when compared to 2003–2004.
- Peel ESL/ELD students scored 15% higher in 2004–2005 for academic mathematics when compared to 2003–2004.

When compared to 2001–2002 results (four-year trends), Peel ESL/ELD students scored:

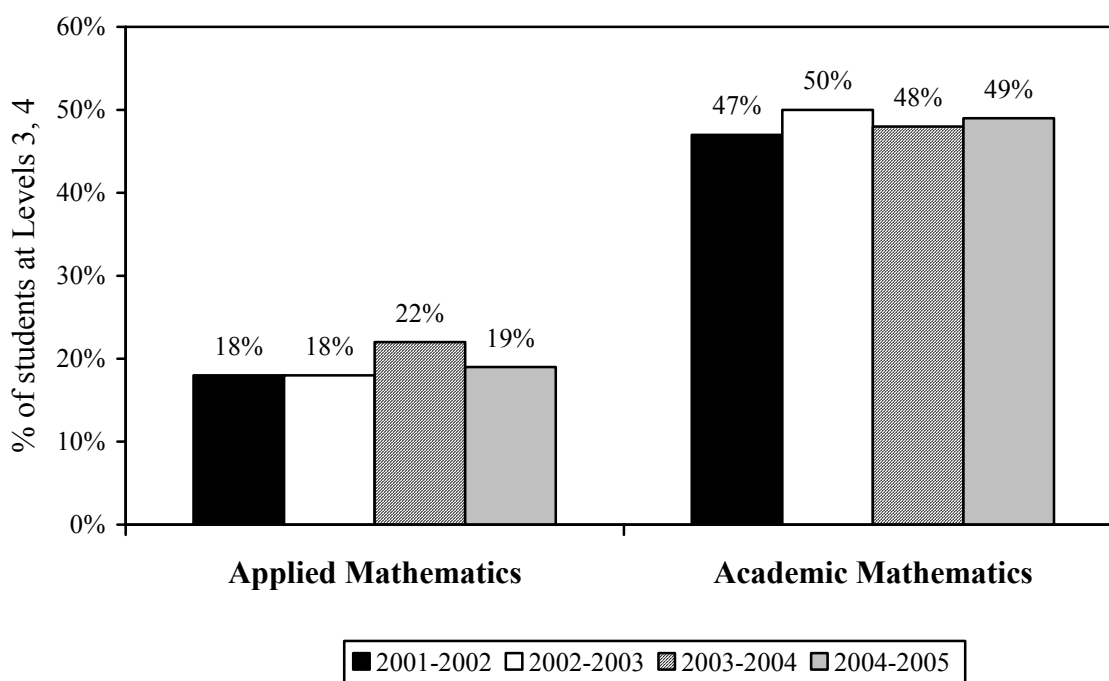
- 1% lower for applied mathematics
- 15% higher for academic mathematics

FIGURE 6

EQAO 2004–2005 Grade 9 Results: Peel Comparisons of Change in Special Education Results (excluding gifted) from 2001–2002 to 2004–2005

Levels 3, 4

Peel Special Education Results from 2001–2002 to 2004–2005



When compared to last year's results (2003–2004):

- In applied mathematics, Peel students with special needs scored 3% lower in 2004–2005 when compared to 2003–2004.
- In academic mathematics, Peel students with special needs scored 1% higher in 2004–2005 when compared to 2003–2004.

When compared to 2001–2002 results (four-year trends), Peel students with special needs scored:

- 1% higher for applied mathematics
- 2% higher for academic mathematics

Summary of Results, 2004–2005

1. Peel and Provincial Results

- Peel grade 9 students scored 3% below the provincial average in applied mathematics and scored 1% below in academic mathematics.

2. Yearly Comparisons (Peel)

- Grade 9 students scored 3% lower in applied mathematics when compared to last year.
- Grade 9 students scored 1% lower in academic mathematics when compared to last year.

3. Four-Year Comparisons (Peel)

- Grade 9 students scored the same in applied mathematics when compared to 2001–2002.
- Grade 9 students scored 1% higher in academic mathematics when compared to 2001–2002.

4. Gender (Peel)

- Peel girls scored 4% lower than boys in applied mathematics.
- Peel girls scored 3% lower than boys in academic mathematics.

5. ESL/ELD Learners (Peel)

- Peel grade 9 ESL/ELD learners in applied mathematics scored 3% lower than last year, and 1% lower when compared to 2001–2002.
- Peel grade 9 ESL/ELD learners in academic mathematics scored 15% higher than last year, and 15% higher when compared to 2001–2002.

6. Students with Special Needs (Peel)

- In applied mathematics, Peel grade 9 students with special needs scored 3% lower than last year, and 1% higher when compared to 2001–2002.
- In academic mathematics, Peel grade 9 students with special needs scored 1% higher than last year, and 2% higher when compared to 2001–2002.