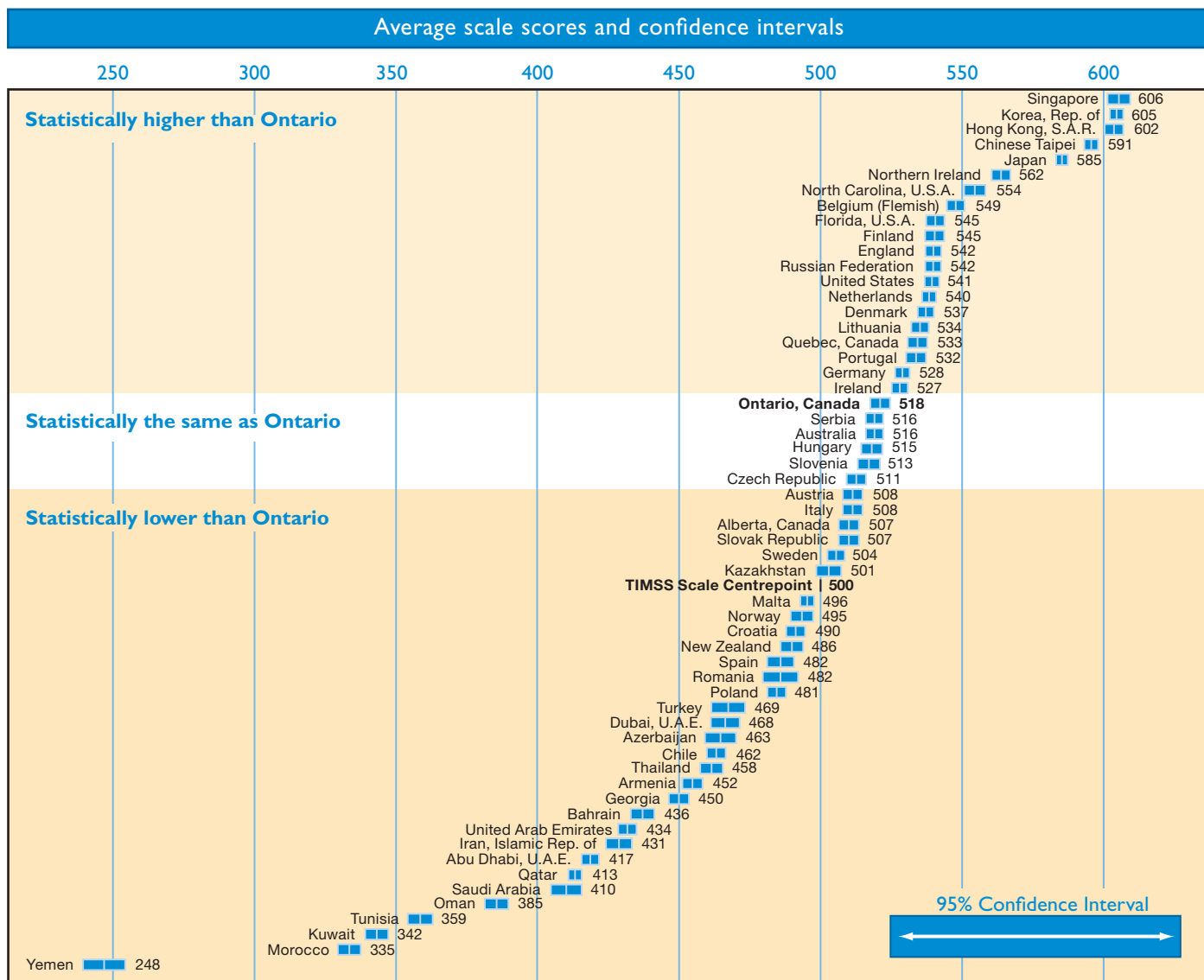


TIMSS measures the mathematics and science achievement of students in Grades 4 and 8.

Participation

TIMSS has been administered to Grade 4 students in 1995, 2003, 2007 and 2011. Ontario students participated in each assessment.

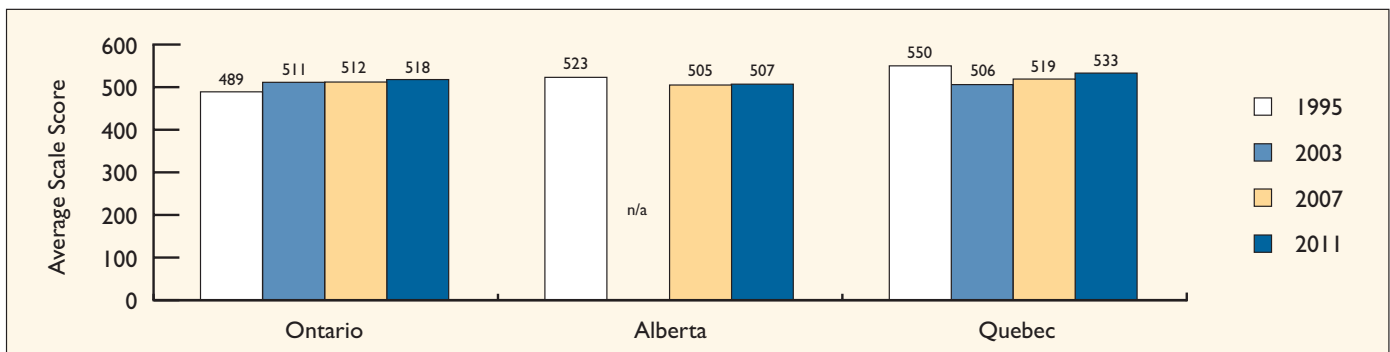
Grade 4 Mathematics Achievement, Results by Jurisdiction



The width of each bar represents the uncertainty due to sampling. There is a 95% probability that the average scale score for each jurisdiction would be within the corresponding bar 19 times out of 20. The jurisdictions are listed according to the ranking of their scores.

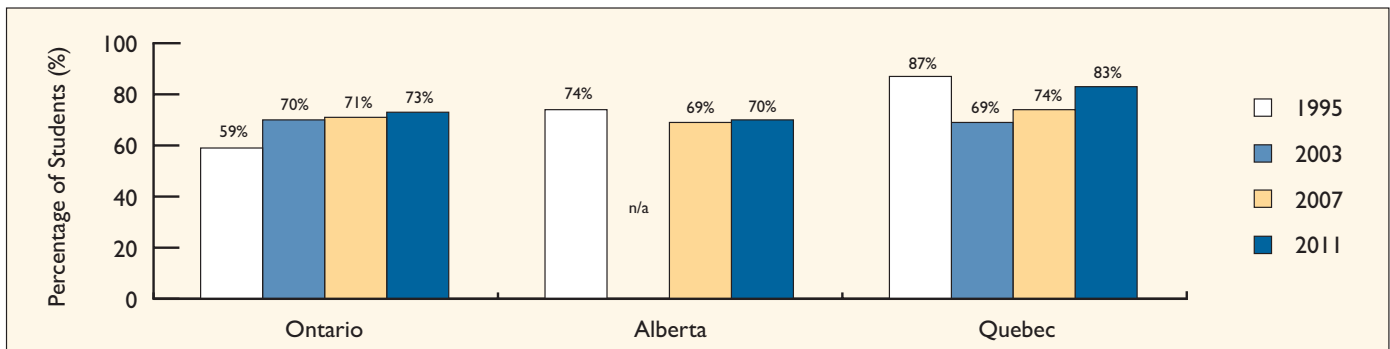
- Fifty-seven jurisdictions participated in the TIMSS Grade 4 mathematics study.
- In Grade 4, 20 jurisdictions have an average score significantly higher than Ontario's, five jurisdictions have the same average as Ontario's and 31 jurisdictions have a significantly lower average.
- Ontario's scores are significantly higher than Alberta's and lower than Quebec's.
- At the international level, among those participating in both years, there has been little change in the list of jurisdictions outperforming Ontario on the TIMSS mathematical assessments in 2007 and 2011.
- TIMSS defines four achievement benchmarks: Advanced, High, Intermediate and Low. Scale scores between 475 and 549 points fall in the Intermediate benchmark. Scores at or above 625 are Advanced.
- The average scale score in mathematics among Ontario's Grade 4 students was at the Intermediate benchmark.
- No participating jurisdiction had an average scale score at the Advanced benchmark.

Grade 4 Mathematics, Trends in Achievement (Canadian Provinces)



- The average scale score for Ontario's Grade 4 students has increased significantly, from 489 to 518, between 1995 and 2011 (a total of 29 points), but there has been no significant change between 2003 and 2011.
- Alberta's results have remained statistically unchanged and Quebec's results have dropped significantly since 1995.

Grade 4 Mathematics, Trends in Achievement (Percentages of Students Reaching or Exceeding the TIMSS Intermediate Benchmark)



- The percentage of Ontario Grade 4 students achieving or exceeding the TIMSS Intermediate benchmark has increased significantly, from 59% to 73%, between 1995 and 2011, but there has been no significant change between 2003 and 2011.
- In Quebec, the percentage of students reaching or exceeding the Intermediate benchmark has decreased significantly between 1995 and 2011.

About TIMSS

- TIMSS is coordinated by the International Association for the Evaluation of Educational Achievement (IEA).
- A total of 4570 Grade 4 students participated in Ontario.

About EQAO: The Education Quality and Accountability Office (EQAO) acts as a catalyst for increasing the success of Ontario students by measuring their achievement in reading, writing and mathematics against a common curriculum benchmark. As an independent provincial agency, EQAO plays a pivotal role by conducting province-wide tests at key points in every student's primary, junior and secondary education and reporting the results. The objective and reliable facts obtained add to the current knowledge about student learning and are an important tool for improvement at the individual, school and provincial levels.

Trends in International Mathematics and Science Study (TIMSS), 2011

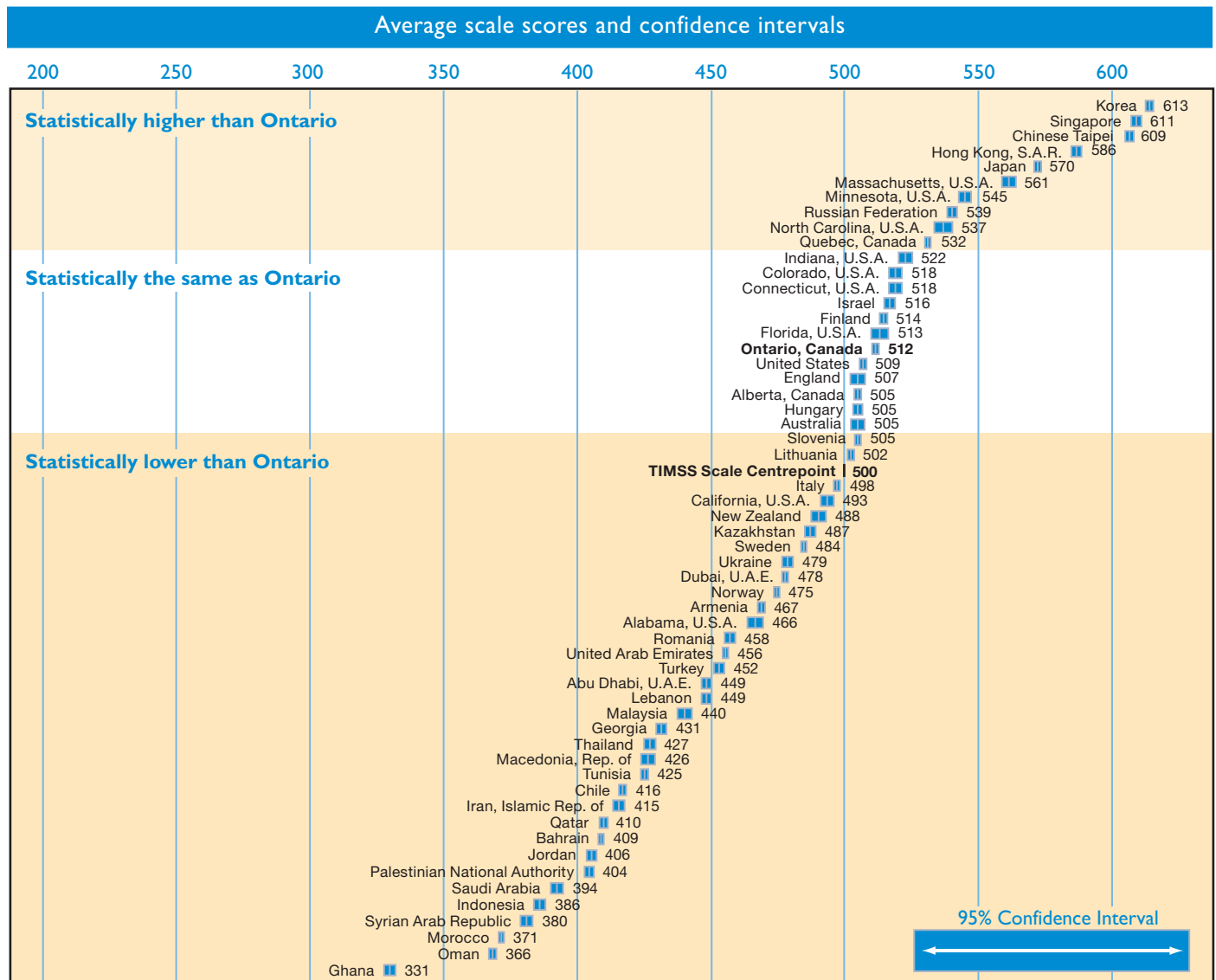
Highlights of Ontario Results: Grade 8 Mathematics

TIMSS measures the mathematics and science achievement of students in Grades 4 and 8.

Participation

TIMSS has been administered to Grade 8 students in 1995, 1999, 2003, 2007 and 2011. Ontario students participated in each assessment.

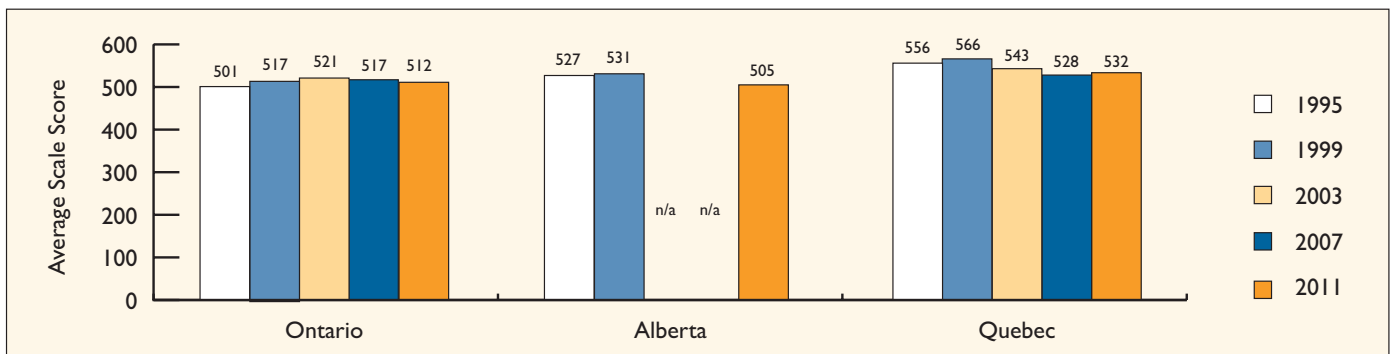
Grade 8 Mathematics Achievement, Results by Jurisdiction



The width of each bar represents the uncertainty due to sampling. There is a 95% probability that the average scale score for each jurisdiction would be within the corresponding bar 19 times out of 20. The jurisdictions are listed according to the ranking of their scores.

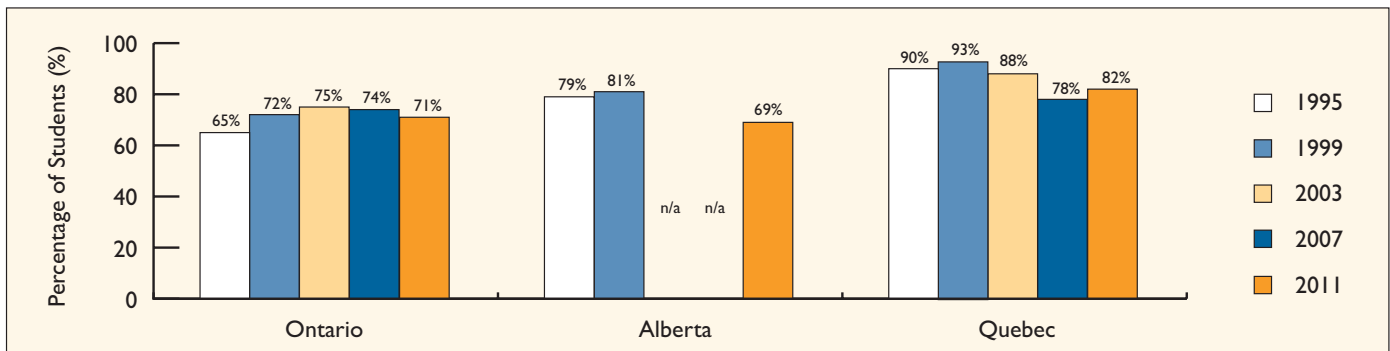
- Fifty-six jurisdictions participated in the TIMSS Grade 8 mathematics study.
- In Grade 8, 10 jurisdictions have an average score significantly higher than Ontario's, 11 jurisdictions have the same average as Ontario's and 34 jurisdictions have a significantly lower average.
- Ontario students performed as well as those in Alberta but not as well as those in Quebec.
- At the international level, among those participating in both years, there has been little change in the list of jurisdictions outperforming Ontario on the TIMSS mathematical assessments in 2007 and 2011.
- TIMSS defines four achievement benchmarks: Advanced, High, Intermediate and Low. Scale scores between 475 and 549 points fall in the Intermediate benchmark. Scores at or above 625 are Advanced.
- The average scale score in mathematics among Ontario's Grade 8 students was at the Intermediate benchmark.
- No participating jurisdiction had an average scale score at the Advanced benchmark.

Grade 8 Mathematics, Trends in Achievement (Canadian Provinces)



- The average scale score for Ontario's Grade 8 students has increased significantly, from 501 to 512, between 1995 and 2011, but there has been a significant decline between 2003 and 2011.
- Results for Quebec and Alberta have declined significantly between 1995 and 2011.

Grade 8 Mathematics, Trends in Achievement (Percentages of Students Reaching or Exceeding the TIMSS Intermediate Benchmark)



- The percentage of Ontario Grade 8 students achieving or exceeding the TIMSS Intermediate benchmark has increased significantly, from 65% to 71%, between 1995 and 2011.
- The percentage of Ontario Grade 8 students reaching or exceeding the Intermediate benchmark in 2011 is significantly larger than the percentage in 1995, but it is significantly smaller than the percentage in 2003.
- Results for Alberta and Quebec have declined significantly since 1995.

About TIMSS

- TIMSS is coordinated by the International Association for the Evaluation of Educational Achievement (IEA).
- A total of 4756 Grade 8 students participated in Ontario.

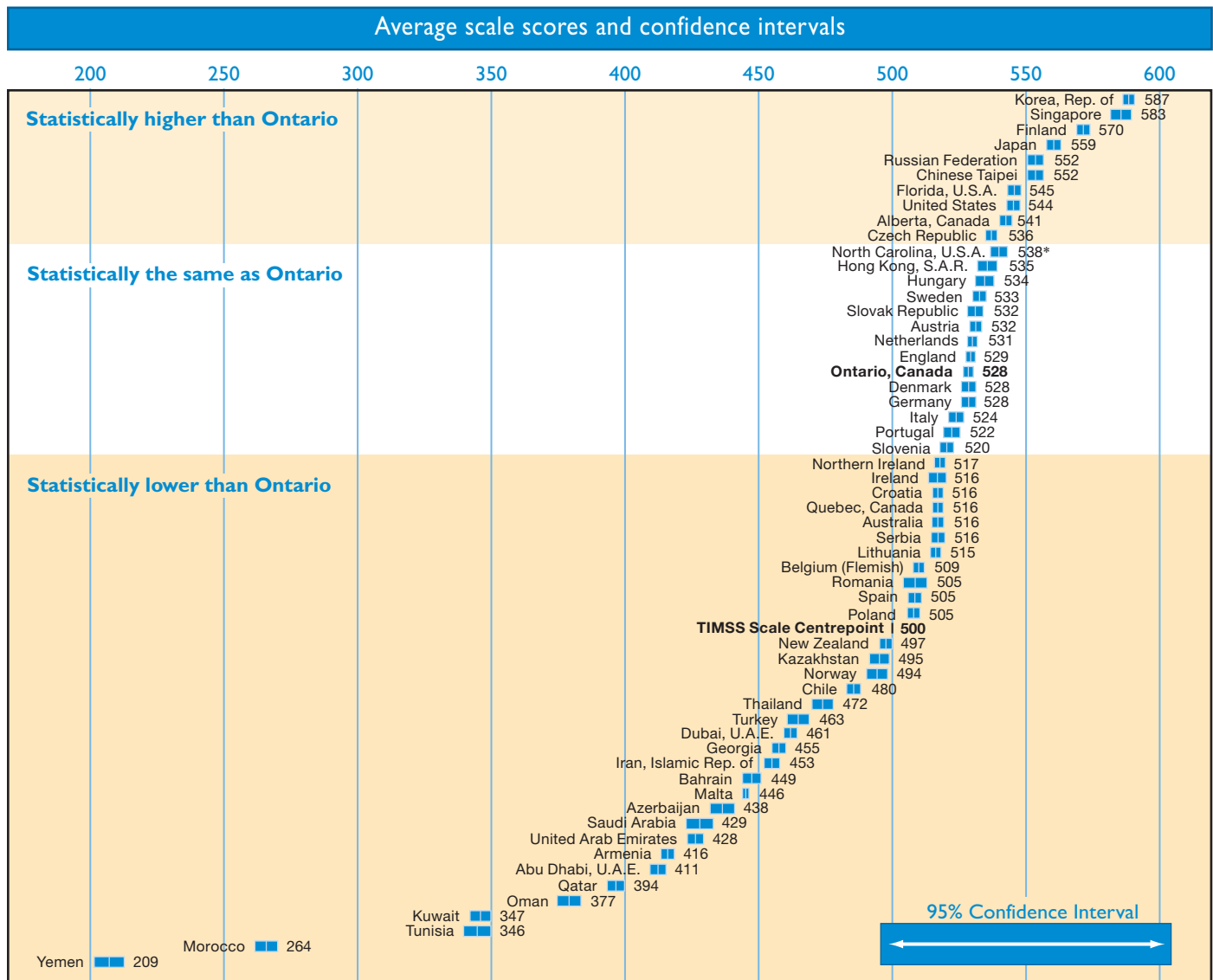
About EQAO: The Education Quality and Accountability Office (EQAO) acts as a catalyst for increasing the success of Ontario students by measuring their achievement in reading, writing and mathematics against a common curriculum benchmark. As an independent provincial agency, EQAO plays a pivotal role by conducting province-wide tests at key points in every student's primary, junior and secondary education and reporting the results. The objective and reliable facts obtained add to the current knowledge about student learning and are an important tool for improvement at the individual, school and provincial levels.

TIMSS measures the mathematics and science achievement of students in Grades 4 and 8.

Participation

TIMSS has been administered to Grade 4 students in 1995, 2003, 2007 and 2011. Ontario students participated in each assessment.

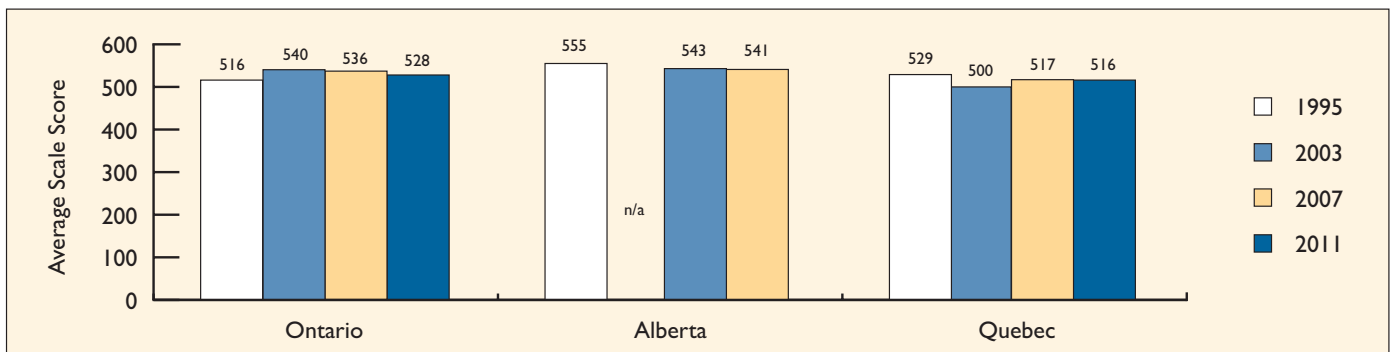
Grade 4 Science Achievement, Results by Jurisdiction



*Although the mean score for North Carolina is higher than that for the Czech Republic, it is not significantly higher than the mean score for Ontario.
Note: The width of each bar represents the uncertainty due to sampling. There is a 95% probability that the average scale score for each jurisdiction would be within the corresponding bar 19 times out of 20. The jurisdictions are listed according to the ranking of their scores.

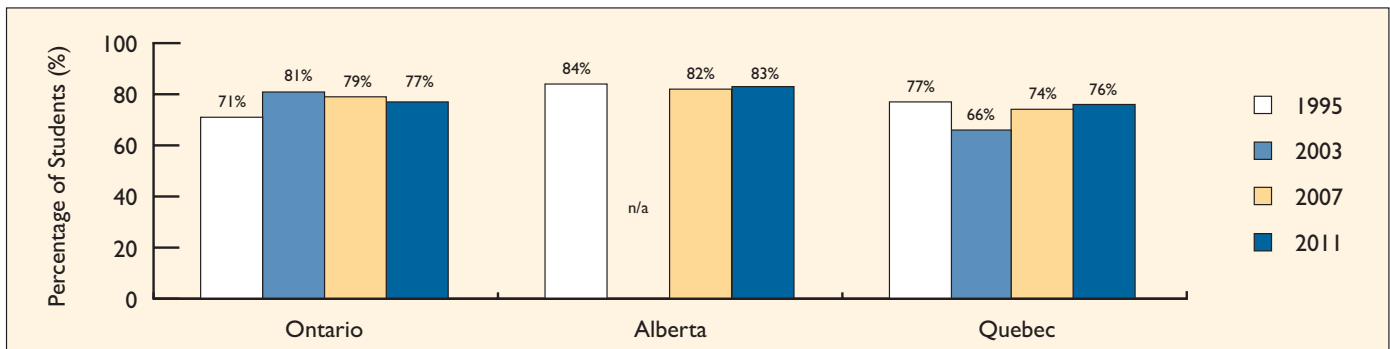
- Fifty-seven jurisdictions participated in the TIMSS Grade 4 science study.
- In Grade 4, 10 jurisdictions have an average score significantly higher than Ontario's, 13 jurisdictions have the same average as Ontario's and 33 jurisdictions have a significantly lower average.
- Compared to students in the other participating Canadian provinces, Ontario's students performed better than those in Quebec and less well than those in Alberta.
- TIMSS defines four achievement benchmarks: Advanced, High, Intermediate and Low. Scale scores between 475 and 549 points fall in the Intermediate benchmark. Scores at or above 625 are Advanced.
- The average scale score in science among Ontario's Grade 4 students was at the Intermediate benchmark.
- No participating jurisdiction had an average scale score at the Advanced benchmark.

Grade 4 Science, Trends in Achievement (Canadian Provinces)



- In Grade 4, Ontario results have improved significantly between 1995 and 2011. The 2011 average scale score is significantly higher than in 1995, but significantly lower than in 2003.
- In Quebec, the average scale score is significantly lower than in 1995, but it has increased significantly since 2003.

Grade 4 Science, Trends in Achievement (Percentages of Students Reaching or Exceeding the TIMSS Intermediate Benchmark)



- The percentage of Ontario Grade 4 students reaching the Intermediate benchmark has risen significantly, from 71% in 1995 to 77% in 2011.
- Results for Alberta have remained relatively steady. The percentages for Quebec have fluctuated between a high of 77% in 1995 and a low of 66% in 2003.

About TIMSS

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Trends in International Mathematics and Science Study (TIMSS), 2011

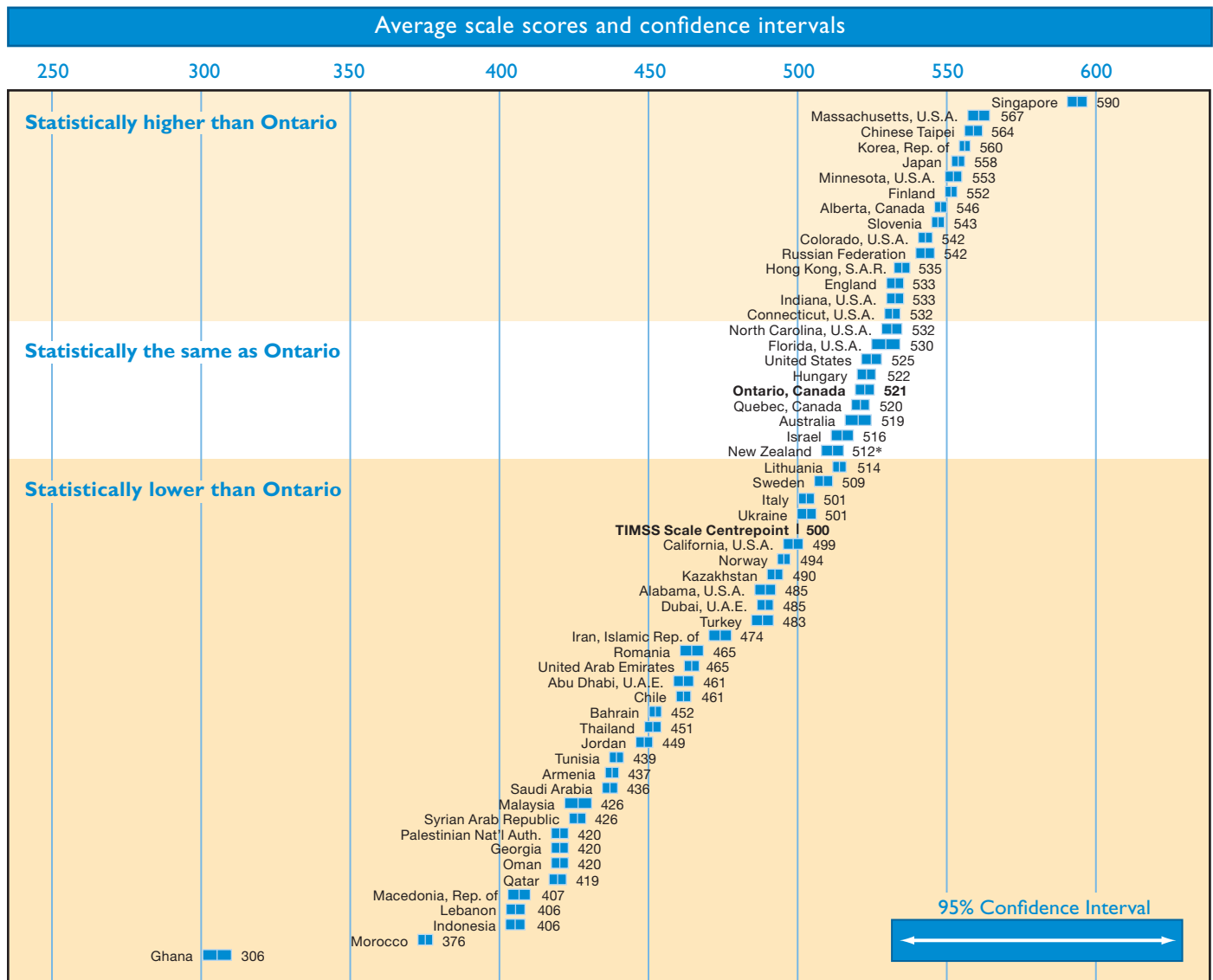
Highlights of Ontario Results: Grade 8 Science

TIMSS measures the mathematics and science achievement of students in Grades 4 and 8.

Participation

TIMSS has been administered to Grade 8 students in 1995, 1999, 2003, 2007 and 2011. Ontario students participated in each assessment.

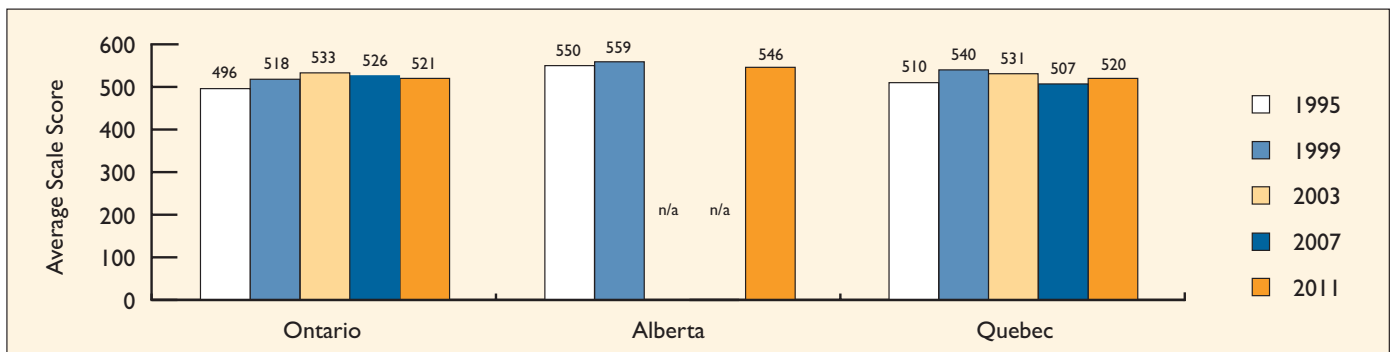
Grade 8 Science Achievement, Results by Jurisdiction



*Although the mean score for New Zealand is lower than that for Lithuania, it is not significantly lower than the mean score for Ontario.
Note: The width of each bar represents the uncertainty due to sampling. There is a 95% probability that the average scale score for each jurisdiction would be within the corresponding bar 19 times out of 20. The jurisdictions are listed according to the ranking of their scores.

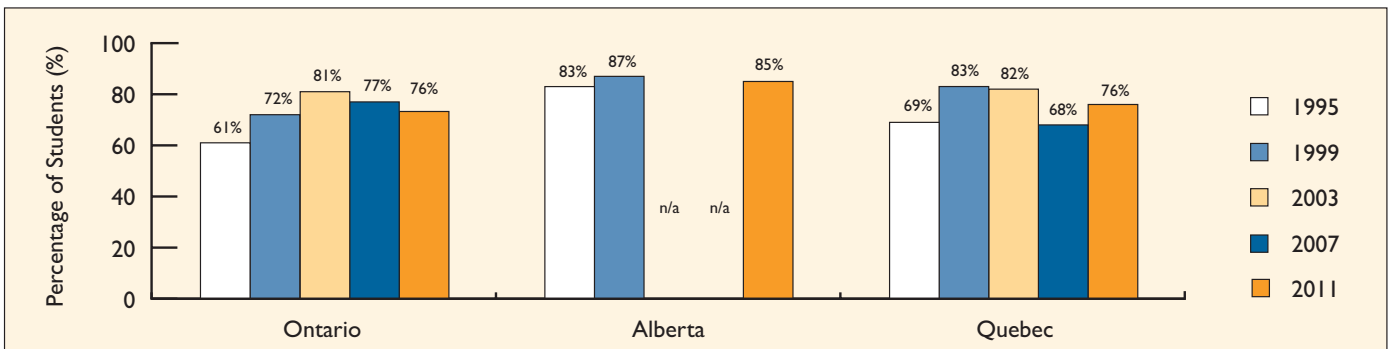
- Fifty-six jurisdictions participated in the TIMSS Grade 8 science study.
- In Grade 8, 15 jurisdictions have an average score significantly higher than Ontario's, eight jurisdictions have the same average as Ontario's and 32 jurisdictions have a significantly lower average.
- Ontario students performed the same as those in Quebec and less well than those in Alberta.
- TIMSS defines four achievement benchmarks: Advanced, High, Intermediate and Low. Scale scores between 475 and 549 points fall in the Intermediate benchmark. Scores at or above 625 are Advanced.
- The average scale score in science among Ontario's Grade 8 students was at the Intermediate benchmark.
- No participating jurisdiction had an average scale score at the Advanced benchmark.

Grade 8 Science Achievement, Trends in Achievement (Canadian Provinces)



- The average scale score for Ontario's Grade 8 students has increased significantly, from 496 to 521, between 1995 and 2011, but there has been a significant decline between 2003 and 2011.
- The average for Quebec has increased significantly since 2007, and Alberta's average has declined slightly, but not significantly, since 1995.

Grade 8 Science, Trends in Achievement (Percentages of Students Reaching or Exceeding the TIMSS Intermediate Benchmark)



- In 2011, the percentage of Grade 8 students in Ontario reaching the Intermediate benchmark is significantly larger than that on the first administration, in 1995.
- Results for Alberta have been steady, at around 85%.
- Results for Quebec have been variable over time; they fell significantly from 2003 to 2007, but increased significantly from 2007 to 2011, even if they remain statistically lower than in 2003.

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