

Education

Annual Report Update
2015-2016



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Education

2015-2016 Annual Report Update: Performance Measures Related to Provincial Testing

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Results Analysis

Performance Highlights

Performance measurement provides information on the achievement of outcomes of the education system. This information is generated through student outcome data, provincial stakeholder surveys and test results. In the Annual Report Update, results from Provincial Achievement Tests and diploma examinations are presented. Specifically, the proportions of students that reach the acceptable standard and the standard of excellence in four subject areas are assessed against targets set in the 2015-18 business plan.

- Seven of the eight performance targets based on Provincial Achievement Test results and three of the six performance targets based on diploma examination results were either achieved or exceeded.
- The proportion of students that achieved the acceptable standard on Language Arts Provincial Achievement Tests has remained stable over time (80.1 per cent in 2015-16), while the proportion of students who achieved the standard of excellence has increased from 16.8 per cent in 2011-12 to 17.5 per cent in 2015-16.
- The proportion of students achieving the acceptable standard on Science Provincial Achievement Tests (76.0 per cent in 2015-16) has remained stable over time, while the proportion of students achieving the standard of excellence has decreased from 25.2 per cent in 2011-12 to 24.7 per cent in 2015-16.
- The proportion of students that achieved the acceptable standard on Mathematics Provincial Achievement Tests has decreased over time from 70.5 per cent in 2011-12 to 69.9 per cent in 2015-16, while the proportion of students who achieved the standard of excellence has decreased from 17.2 per cent in 2011-12 to 15.6 per cent in 2015-16.
- The proportion of students achieving the acceptable standard on Social Studies Provincial Achievement Tests has decreased from 70.9 per cent in 2011-12 to 68.0 per cent in 2015-16, while the proportion of students achieving the standard of excellence has increased from 19.2 per cent in 2011-12 to 20.0 per cent in 2015-16.
- The proportion of students achieving the acceptable standard on Language Arts diploma examinations (87.8 per cent in 2015-16) and the proportion achieving the standard of excellence (11.3 per cent in 2015-16) have remained stable since 2011-12.
- The proportion of students achieving the acceptable standard on Science diploma examinations has increased from 80.0 per cent in 2011-12 to 84.0 per cent in 2015-16, and the proportion of students achieving the standard of excellence has increased from 28.2 per cent in 2011-12 to 33.6 per cent in 2015-16.
- The proportion of students achieving the acceptable standard on Social Studies diploma examinations has decreased from 84.9 per cent in 2011-12 to 83.2 per cent in 2015-16, and the proportion of students achieving the standard of excellence has decreased from 15.4 per cent in 2011-12 to 13.8 per cent in 2015-16.
- The ministry supports the education system in eliminating the achievement gap between testing results for self-identified First Nations, Métis and Inuit students and the results for all students. Five of the eight performance targets for self-identified First Nations, Metis and Inuit students based on Provincial Achievement Tests were achieved, and all six performance targets based on diploma examination results were either achieved or exceeded.

- The proportion of self-identified First Nations, Métis and Inuit students that achieved the acceptable standard on Language Arts Provincial Achievement Tests has increased from 60.0 per cent in 2011-12 to 63.0 per cent in 2015-16. The proportion of self-identified First Nations, Métis and Inuit students that achieved the standard of excellence on Language Arts Provincial Achievement Tests has increased from 4.8 per cent in 2011-12 to 5.7 per cent in 2015-16.
- The proportion of self-identified First Nations, Métis and Inuit students that achieved the acceptable standard on Science Provincial Achievement Tests has increased from 52.0 per cent in 2011-12 to 55.1 per cent in 2015-16, while the proportion of self-identified First Nations, Métis and Inuit students that achieved the standard of excellence on Science Provincial Achievement Tests has remained stable over time (8.9 per cent in 2015-16).
- The proportions of self-identified First Nations, Métis and Inuit students that achieved the acceptable standard (45.9 per cent in 2015-16) and the standard of excellence (4.3 per cent in 2015-16) on Mathematics Provincial Achievement Tests have remained stable over time.
- The proportions of self-identified First Nations, Métis and Inuit students that achieved the acceptable standard (45.3 per cent in 2015-16) and the standard of excellence (6.4 per cent in 2015-16) on Social Studies Provincial Achievement Tests have remained stable over time.
- The proportion of self-identified First Nations, Métis and Inuit students achieving the acceptable standard on Language Arts diploma examinations has increased from 82.8 per cent in 2011-12 to 85.7 per cent in 2015-16, while the proportion of self-identified First Nations, Métis and Inuit students achieving the standard of excellence has remained stable over time (8.4 per cent in 2015-16).
- The proportions of self-identified First Nations, Métis and Inuit students achieving the acceptable standard (73.6 per cent in 2015-16) and the standard of excellence (5.7 per cent in 2015-16) on Social Studies diploma examinations have remained stable over time.
- The proportion of self-identified First Nations, Métis and Inuit students achieving the acceptable standard on Science diploma examinations has increased from 66.8 per cent in 2011-12 to 73.4 per cent in 2015-16. The proportion of self-identified First Nations, Métis and Inuit students achieving the standard of excellence on Science diploma examinations has increased from 12.3 per cent in 2011-12 to 18.1 per cent in 2015-16.

Discussion and Analysis of Results

DESIRED OUTCOME ONE

Every student is successful

Every student is successful means that students achieve Alberta's learning outcomes, become proficient in literacy and numeracy, and demonstrate competencies such as critical thinking, collaboration, and communication across subject areas. Alberta Education collaborates with education partners to help students be successful in learning by developing curriculum and providing personalized, student-centred programming. The ministry also creates conditions for pre-school aged children to become successful students by addressing integrated early learning and care needs.

1.a Overall Achievement Test Results in Language Arts

Rationale

- Overall student achievement of standards on Provincial Achievement Tests is a sound indicator of whether elementary and junior high students are achieving high standards in Language Arts, an important outcome for Alberta's K–12 education system.

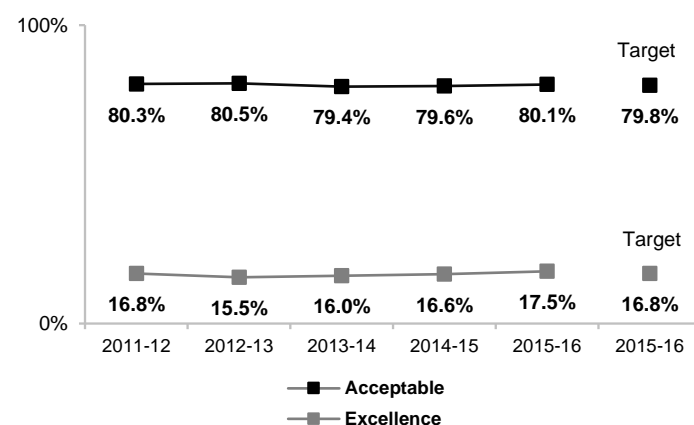
Target

- The targets for overall Language Arts Provincial Achievement Test results at the acceptable standard and at the standard of excellence were exceeded.

Discussion

- Overall results in Language Arts are calculated as an average of the results in the following seven subjects weighted by the number of individuals that were enrolled:
 - English Language Arts 6 and 9
 - French Language Arts 6 and 9
 - Français 6 and 9
 - English Language Arts 9 (Knowledge and Employability)
- The overall proportion of students achieving the acceptable standard in Language Arts has remained stable over time, while the overall proportion achieving the standard of excellence has increased.
- To support student learning in core subjects, the ministry provides programs of study and implementation guides for teachers and develops or authorizes learning resources for students in all grades and subjects.

Overall Percentages of Students Who Achieved Standards on Grade 6 and 9 Provincial Achievement Tests in Language Arts



Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall Language Arts results are a weighted average based on total enrolment in Grades 6 and 9 Language Arts courses.
- Prior to 2013-14 this measure did not include results of English Language Arts 9 (Knowledge and Employability).
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

Discussion (continued):

- The overall participation rate for students taking Language Arts Provincial Achievement Tests has remained stable.

Participation Rates for Language Arts Provincial Achievement Tests *(in percentages)*

Subject	2011-12	2012-13	2013-14	2014-15	2015-16
Grade 6					
English Language Arts	91	91	90	91	91
French Language Arts	97	98	98	98	98
Français	98	98	97	97	98
Grade 9					
English Language Arts	89	88	88	88	89
English Language Arts (Knowledge and Employability)	80	81	80	82	80
French Language Arts	97	97	97	96	97
Français	96	96	95	95	95
Overall Language Arts					
	90.1	90.1	89.7	89.9	90.0

Source: Alberta Education

Note:

- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).

1.a Achievement Test Results in Language Arts by Individual Subject for Students in Grades 6 and 9

Rationale

- Student results on Provincial Achievement Tests in each grade and subject provide detailed information on whether elementary and junior high students are achieving high standards in Language Arts, an important outcome for Alberta's K–12 education system.

Target

- Targets for individual Language Arts subject results were not set in the 2015-18 Business Plan.

Discussion

- The proportion of students achieving the acceptable standard has decreased over time for French Language Arts 9. Results for English Language Arts 6 and 9, French Language Arts 6, Français 6 and 9, and English Language Arts 9 (Knowledge and Employability) have remained stable over time.
- The proportion of students achieving the standard of excellence has decreased over time for French Language Arts 6 and English Language Arts 9. Results for English Language Arts 6 and Français 9 have increased, and results for Français 6, French Language Arts 9 and English Language Arts 9 (Knowledge and Employability) have remained stable over time.
- As adult literacy studies are not conducted regularly, Grade 9 results in Language Arts are regarded as indicators of literacy. Students who achieve the acceptable standard have developed the foundational skills needed to become literate adults. As indicated above, results at the acceptable standard have decreased over time for French Language Arts 9 and remained stable over time for English Language Arts 9.
- Note that the flooding in southern Alberta in the summer of 2013 and the fire in Fort McMurray in May to June 2016 may have impacted the overall provincial results. Caution needs to be exercised when interpreting the results over time.

Percentages of Students in Grades 6 and 9 Who Achieved Standards on Provincial Achievement Tests in Language Arts

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
Grade 6							
English Language Arts	excellence	17.8	16.3	17.6	19.5	20.4	
	acceptable	82.7	82.5	81.9	82.8	82.9	
French Language Arts	excellence	17.3	16.3	15.6	13.6	14.2	
	acceptable	89.3	88.6	88.0	87.5	87.7	
Français	excellence	21.9	21.6	17.1	15.0	17.2	
	acceptable	91.0	94.0	90.6	89.0	91.4	
Grade 9							
English Language Arts	excellence	16.4	14.8	15.0	14.4	15.2	
	acceptable	77.4	76.7	76.3	75.6	77.0	
English Language Arts (Knowledge and Employability)	excellence	5.8	4.3	3.5	4.5	6.2	
	acceptable	61.4	62.4	62.8	63.0	59.8	
French Language Arts	excellence	12.2	13.9	11.1	10.1	10.8	
	acceptable	87.5	87.2	86.5	85.8	83.0	
Français	excellence	16.1	14.5	17.8	20.2	26.8	
	acceptable	84.6	84.0	86.1	88.5	86.4	
Overall Language Arts							
	excellence	16.8	15.5	16.0	16.6	17.5	16.8
	acceptable	80.3	80.5	79.4	79.6	80.1	79.8

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

1.a Overall Achievement Test Results in Mathematics

Rationale

- Overall student achievement of standards on Provincial Achievement Tests is a sound indicator of whether elementary and junior high students are achieving high standards in Mathematics, an important outcome for Alberta's K–12 education system.

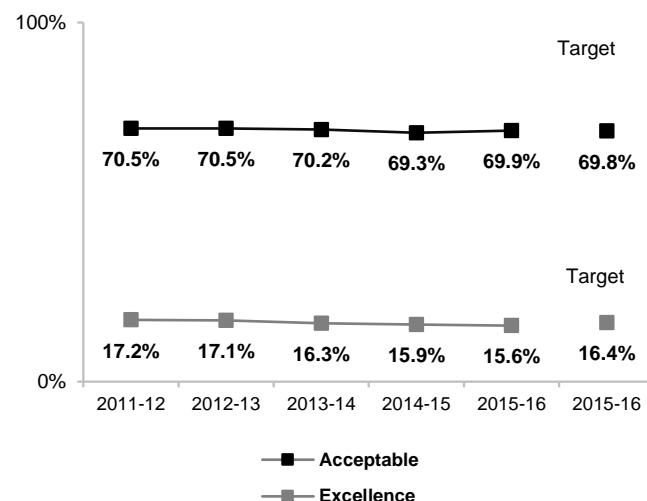
Target

- The target for overall Mathematics Provincial Achievement Test results at the acceptable standard was met; the target at the standard of excellence was not met.

Discussion

- Overall results in Mathematics are calculated as an average of the results in the following three subjects weighted by the number of individuals that were enrolled:
 - Mathematics 6
 - Mathematics 9
 - Mathematics 9 (Knowledge and Employability)
- The overall proportions of students achieving the acceptable standard and the standard of excellence in Mathematics have declined over time.
- To support student learning in core subjects, the ministry provides programs of study and implementation guides for teachers and develops or authorizes learning resources for students in all grades and subjects.

Overall Percentages of Students Who Achieved Standards on Grade 6 and 9 Provincial Achievement Tests in Mathematics



Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall Mathematics results are a weighted average based on total enrolment in Grades 6 and 9 Mathematics courses.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

Discussion (continued):

- The overall participation rate for students taking Mathematics Provincial Achievement Tests has remained stable.

Participation Rates for Mathematics Provincial Achievement Tests (*in percentages*)

Subject	2011-12	2012-13	2013-14	2014-15	2015-16
Grade 6					
Mathematics	91	91	91	91	91
Grade 9					
Mathematics	90	89	89	89	89
Mathematics (Knowledge and Employability)	87	88	86	86	87
Overall Mathematics					
	90.3	90.0	89.8	90.0	90.2

Source: Alberta Education

Note:

- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).

1.a Achievement Test Results in Mathematics by Individual Subject for Students in Grades 6 and 9

Rationale

- Student results on Provincial Achievement Tests in each grade and subject provide detailed information on whether elementary and junior high students are achieving high standards in Mathematics, an important outcome for Alberta's K–12 education system.

Target

- Targets for individual Mathematics subject results were not set in the 2015-18 Business Plan.

Discussion

- The proportion of students achieving the acceptable standard has decreased over time for Mathematics 6 while the proportion for Mathematics 9 (Knowledge and Employability) has remained stable. The proportion of students achieving the acceptable standard has increased for Mathematics 9.
- The proportion of students achieving the standard of excellence has decreased over time for Mathematics 6 and Mathematics 9 (Knowledge and Employability), while the proportion for Mathematics 9 has remained stable.
- Note that the flooding in southern Alberta in the summer of 2013 and the fire in Fort McMurray in May to June 2016 may have impacted the overall provincial results. Caution needs to be exercised when interpreting the results over time.

Percentages of Students in Grades 6 and 9 Who Achieved Standards on Provincial Achievement Tests in Mathematics

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
Grade 6							
Mathematics	excellence	16.6	16.4	15.4	14.1	14.0	
	acceptable	74.7	73.0	73.5	73.2	72.2	
Grade 9							
Mathematics	excellence	17.8	18.3	17.3	17.9	17.5	
	acceptable	66.4	66.8	67.1	65.3	67.8	
Mathematics (Knowledge and Employability)	excellence	15.3	14.7	14.5	14.4	13.0	
	acceptable	62.5	65.8	63.4	60.9	61.2	
Overall Mathematics							
	excellence	17.2	17.1	16.3	15.9	15.6	16.4
	acceptable	70.5	70.5	70.2	69.3	69.9	69.8

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

1.a Overall Achievement Test Results in Social Studies

Rationale

- Overall student achievement of standards on Provincial Achievement Tests is a sound indicator of whether elementary and junior high students are achieving high standards in Social Studies, an important outcome for Alberta's K–12 education system.

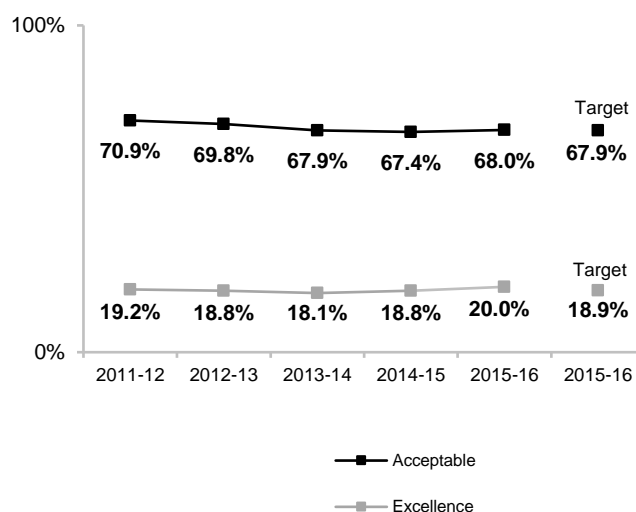
Target

- The target for overall Social Studies Provincial Achievement Test results at the acceptable standard was met; the target for overall Social Studies at the standard of excellence was exceeded.

Discussion

- Overall results in Social Studies are calculated as an average of the results in the following three subjects, weighted by the number of individuals that were enrolled:
 - Social Studies 6
 - Social Studies 9
 - Social Studies 9 (Knowledge and Employability)
- The overall proportion of students achieving the acceptable standard in Social Studies has declined over time. The proportion achieving the standard of excellence has increased over time.

Overall Percentages of Students Who Achieved Standards on Grades 6 and 9 Provincial Achievement Tests in Social Studies



Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall results are a weighted average based on total enrolment in Grades 6 and 9 Social Studies courses.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

Discussion (continued):

- The overall participation rate for students taking Social Studies Provincial Achievement Tests has remained stable.

Participation Rates for Social Studies Provincial Achievement Tests (*in percentages*)

Subject	2011-12	2012-13	2013-14	2014-15	2015-16
Grade 6					
Social Studies	91	90	90	90	90
Grade 9					
Social Studies	89	89	89	89	89
Social Studies (Knowledge and Employability)	84	87	84	85	83
Overall Social Studies					
	89.8	89.5	89.1	89.2	89.6

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

1.a Achievement Test Results in Social Studies by Individual Subject for Students in Grades 6 and 9

Rationale

- Student results on Provincial Achievement Tests in each grade and subject provide detailed information on whether elementary and junior high students are achieving high standards in Social Studies, an important outcome for Alberta's K-12 education system.

Target

- Targets for individual Social Studies subject results were not set in the 2015-18 Business Plan.

Discussion

- The proportion of students achieving the acceptable standard decreased over time for Social Studies 6 and 9, and Social Studies 9 (Knowledge and Employability).
- The proportion of students achieving the standard of excellence has decreased over time for Social Studies 9, while the proportion for Social Studies 9 (Knowledge and Employability) has remained stable. The proportion of students achieving the standard of excellence has increased for Social Studies 6.
- Note that the flooding in southern Alberta in the summer of 2013 and the fire in Fort McMurray in May to June 2016 may have impacted the overall provincial results. Caution needs to be exercised when interpreting the results over time.

Percentages of Students in Grades 6 and 9 Who Achieved Standards on Provincial Achievement Tests in Social Studies

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
Grade 6							
Social Studies	excellence	19.5	19.0	16.6	18.1	22.0	
	acceptable	73.2	72.7	70.4	69.8	71.4	
Grade 9							
Social Studies	excellence	19.1	18.8	19.9	19.8	18.0	
	acceptable	68.9	65.5	65.5	65.1	64.7	
Social Studies (Knowledge and Employability)	excellence	13.9	13.0	10.7	11.2	11.6	
	acceptable	63.5	64.6	61.8	57.3	58.0	
Overall Social Studies							
	excellence	19.2	18.8	18.1	18.8	20.0	18.9
	acceptable	70.9	69.8	67.9	67.4	68.0	67.9

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

1.a Overall Achievement Test Results in Science

Rationale

- Overall student achievement of standards on Provincial Achievement Tests is a sound indicator of whether elementary and junior high students are achieving high standards in Science, an important outcome for Alberta's K–12 education system.

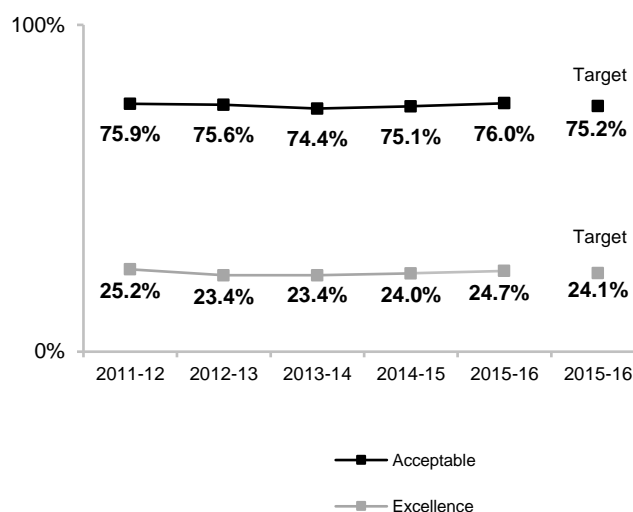
Target

- The targets for overall Science Provincial Achievement Test results at the acceptable standard and the standard of excellence were exceeded.

Discussion

- Overall results in Science are calculated as an average of the results in the following three subjects, weighted by the number of individuals that were enrolled:
 - Science 6
 - Science 9
 - Science 9 (Knowledge and Employability)
- The overall proportion of students achieving the acceptable standard in Science has remained stable over time. The proportion achieving the standard of excellence has decreased over time.

Overall Percentages of Students Who Achieved Standards on Grades 6 and 9 Provincial Achievement Tests in Science



Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall results are a weighted average based on total enrolment in Grades 6 and 9 Science courses.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

Discussion (continued):

- The overall participation rate for students taking Science Provincial Achievement Tests has remained stable.

Participation Rates for Science Provincial Achievement Tests (*in percentages*)

Subject	2011-12	2012-13	2013-14	2014-15	2015-16
Grade 6					
Science	91	91	90	90	91
Grade 9					
Science	90	89	90	90	90
Science (Knowledge and Employability)	86	87	86	87	85
Overall Science	90.4	90.2	89.8	90.0	90.2

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

1.a Achievement Test Results in Science by Individual Subject for Students in Grades 6 and 9

Rationale

- Student results on Provincial Achievement Tests in each grade and subject provide detailed information on whether elementary and junior high students are achieving high standards in Science, an important outcome for Alberta's K-12 education system.

Target

- Targets for individual Science subject results were not set in the 2015-18 Business Plan.

Discussion

- The proportion of students achieving the acceptable standard has remained stable over time for Science 6 and 9, and decreased for Science 9 (Knowledge and Employability).
- The proportion of students achieving the standard of excellence has remained stable over time for Science 9, while the proportion has decreased for Science 6 and Science 9 (Knowledge and Employability).
- Note that the flooding in southern Alberta in the summer of 2013 and the fire in Fort McMurray in May to June 2016 may have impacted the overall provincial results. Caution needs to be exercised when interpreting the results over time.

Percentages of Students in Grades 6 and 9 Who Achieved Standards on Provincial Achievement Tests in Science

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
Grade 6							
Science	excellence	28.2	25.9	24.9	25.3	27.1	
	acceptable	77.8	77.5	75.9	76.3	78.0	
Grade 9							
Science	excellence	22.4	20.0	22.1	22.8	22.4	
	acceptable	74.1	72.9	73.2	74.1	74.2	
Science (Knowledge and Employability)	excellence	17.3	17.1	14.9	15.1	14.3	
	acceptable	67.9	68.4	64.1	64.5	63.8	
Overall Science							
	excellence	25.2	23.4	23.4	24.0	24.7	24.1
	acceptable	75.9	75.6	74.4	75.1	76.0	75.2

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

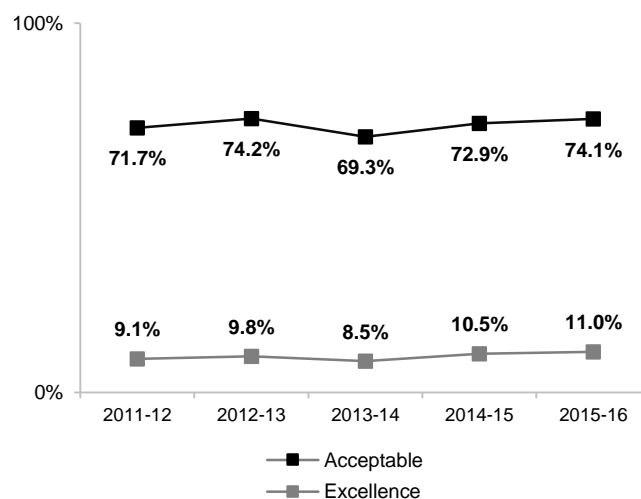
Supplementary Information:

English as a Second Language (ESL) Students Achievement Test Results in English Language Arts

Discussion

- The goal of ESL programs is to provide students with planned systematic instruction and support that will enable them to speak the English language fluently, further their education and become productive and contributing members of Albertan and Canadian society. ESL programs are funded for both Canadian-born and foreign-born students.
- The proportion of ESL students that achieved standards on English Language Arts Provincial Achievement Tests has increased over time at both the acceptable standard and the standard of excellence.
- Targets were not set for ESL students in the 2015-18 Business Plan.

Overall Percentages of ESL Students Who Achieved Standards on Grade 6 and 9 Provincial Achievement Tests in English Language Arts



Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall English Language Arts results are a weighted average based on total enrolment in Grades 6 and 9 English Language Arts courses.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

Discussion (continued):

- The participation rate for ESL students taking English Language Arts Provincial Achievement Tests, 89.1 per cent in the current year, has remained stable over time.

**ESL Participation Rates for English Language Arts Provincial Achievement Tests
(in percentages)**

Subject	2011-12	2012-13	2013-14	2014-15	2015-16
Grade 6					
English Language Arts	90	90	89	90	91
Grade 9					
English Language Arts	85	85	83	86	86
English Language Arts (Knowledge and Employability)	70	74	76	79	84
Overall Language Arts					
	87.6	88.8	86.5	88.5	89.1

Source: Alberta Education

Note:

- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).

English Language Arts Achievement Test Results by Individual Subject for ESL Students in Grades 6 and 9

Discussion

- The proportions of ESL students achieving the acceptable standard and the standard of excellence have increased since 2011-12 for English Language Arts 6.
- The proportions of students achieving the acceptable standard and the standard of excellence have remained stable over time for English Language Arts 9.

Percentages of ESL Students in Grades 6 and 9 Who Achieved Standards on Provincial Achievement Tests in English Language Arts

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16
Grade 6						
English Language Arts	excellence	10.7	10.3	9.6	13.1	14.0
	acceptable	77.2	77.8	75.0	78.8	79.8
Grade 9						
English Language Arts	excellence	6.7	8.4	7.1	6.4	6.4
	acceptable	63.4	62.6	61.0	64.2	65.1
English Language Arts (Knowledge and Employability)	excellence	0.0	3.3	1.1	5.8	4.5
	acceptable	34.5	50.0	53.3	59.9	62.0
Overall Language Arts						
	excellence	9.1	9.8	8.5	10.5	11.0
	acceptable	71.7	74.2	69.3	72.9	74.1

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

Other Subjects (ESL Students)

Discussion

- The proportion of ESL students achieving the acceptable standard has increased over time for Science 6, remained stable for Mathematics 6, Social Studies 6, Mathematics 9 and Science 9, and has decreased for Social Studies 9.
- The proportion of ESL students achieving the standard of excellence has increased over time for Science 6 and Social Studies 6, has remained stable for Science 9 and Social Studies 9, and has declined for Mathematics 6 and 9.

Percentages of ESL Students in Grades 6 and 9 Who Achieved Standards on Provincial Achievement Tests in subjects other than English Language Arts

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16
Grade 6						
French Language Arts	excellence	15.3	17.1	23.9	12.1	21.6
	acceptable	92.8	87.7	90.2	88.5	88.3
Français	excellence	21.3	21.0	16.5	14.2	19.8
	acceptable	90.0	93.5	89.3	87.5	90.7
Mathematics	excellence	15.0	15.3	13.8	13.4	13.0
	acceptable	70.4	69.8	71.2	71.8	69.4
Science	excellence	19.4	17.9	16.7	19.3	21.1
	acceptable	70.9	71.1	68.8	71.6	74.5
Social Studies	excellence	14.2	13.9	10.9	14.0	18.6
	acceptable	67.3	67.5	64.0	65.8	67.9
Grade 9						
French Language Arts	excellence	6.1	16.5	9.0	12.5	13.3
	acceptable	78.8	82.4	85.9	81.3	76.3
Français	excellence	8.8	3.4	8.3	17.6	12.3
	acceptable	73.5	64.4	72.2	76.5	80.7
Mathematics	excellence	16.3	17.9	16.2	15.1	14.3
	acceptable	59.5	58.4	61.2	58.9	61.0
Mathematics (Knowledge and Employability)	excellence	9.7	20.0	7.3	15.8	19.8
	acceptable	49.2	56.7	53.6	55.9	64.6
Science	excellence	16.9	13.4	16.2	16.5	15.5
	acceptable	64.4	60.3	60.9	63.9	65.7
Science (Knowledge and Employability)	excellence	4.9	10.6	6.1	10.9	9.1
	acceptable	45.6	59.6	53.5	60.6	63.6
Social Studies	excellence	11.7	12.2	11.2	12.7	11.6
	acceptable	58.6	53.2	52.7	57.0	54.1
Social Studies (Knowledge and Employability)	excellence	9.3	5.7	6.4	8.6	11.4
	acceptable	54.6	59.8	54.3	61.2	59.7

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

1.b Diploma Examination Results In Language Arts

Rationale

- Student results on diploma examinations are a solid indicator of whether high school students are achieving high standards.
- The Language Arts diploma examination measure is an aggregate of four Language Arts courses. This measure reflects a focus on fundamental literacy skills, an important outcome for Alberta’s K–12 education system.

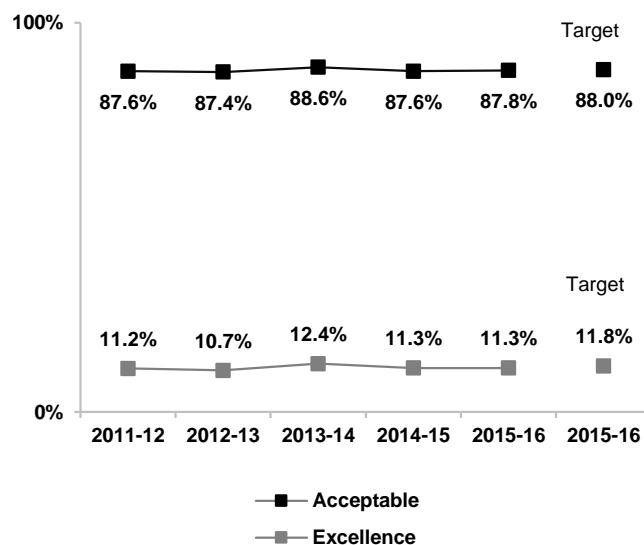
Targets

- The target for overall Language Arts results at the acceptable standard was met; the target at the standard of excellence was not met.

Discussion

- The Language Arts measure is an average of the results in the following four subjects, weighted by the total number of individuals that wrote each of the exams:
 - English Language Arts 30-1
 - English Language Arts 30-2
 - French Language Arts 30-1
 - Français 30-1
- The overall proportion of students achieving the acceptable standard in Language Arts has remained stable over time.
- The overall proportion of students achieving the standard of excellence in Language Arts has remained stable over time with some variation.

Overall Percentages of Students Who Achieved Standards on Diploma Examinations in Language Arts



Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall results for Language Arts are a weighted average of results for the four language arts subjects.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, diploma examinations, pages 61-62.

Discussion (continued):

- Results at the acceptable standard have remained stable over time for English Language Arts 30-1 and English Language Arts 30-2.
- Results at the standard of excellence have decreased for English Language Arts 30-1, and increased for English Language Arts 30-2.

Percentages of Students Writing Language Arts Diploma Examinations Who Achieved Standards

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
English Language Arts 30-1	excellence	11.3	10.4	11.8	11.4	10.7	
	acceptable	86.3	85.9	87.6	86.5	86.8	
English Language Arts 30-2	excellence	10.7	10.9	13.1	11.2	12.3	
	acceptable	89.6	89.4	89.8	88.6	89.1	
French Language Arts 30-1	excellence	13.5	12.4	14.6	9.9	8.7	
	acceptable	95.6	95.4	96.6	95.5	93.8	
Français 30-1	excellence	18.9	18.2	29.2	17.1	20.3	
	acceptable	96.5	96.8	99.3	95.3	99.3	
Overall Language Arts	excellence	11.2	10.7	12.4	11.3	11.3	11.8
	acceptable	87.6	87.4	88.6	87.6	87.8	88.0

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the percentages of students who achieved the standard of excellence.
- Equating of diploma examinations has been phased in over the past number of years making results directly comparable from year to year for the equated tests. Results are comparable for all years reported from 2011-12 to 2015-16 for English Language Arts 30-1 and 30-2, but not for French Language Arts 30-1 and Français 30-1.
- Overall results for Language Arts are a weighted average of results for the four Language Arts subjects.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets and results over time.
- See Endnote B, diploma examinations, pages 61-62.

1.b Diploma Examination Results In Social Studies

Rationale

- Student results on diploma examinations are a solid indicator of whether high school students are achieving high standards.
- The Social Studies diploma examination measure is an aggregate of two courses. This measure reflects a focus on students affirming their place as citizens in an inclusive, democratic society, an important outcome for Alberta’s K–12 education system.

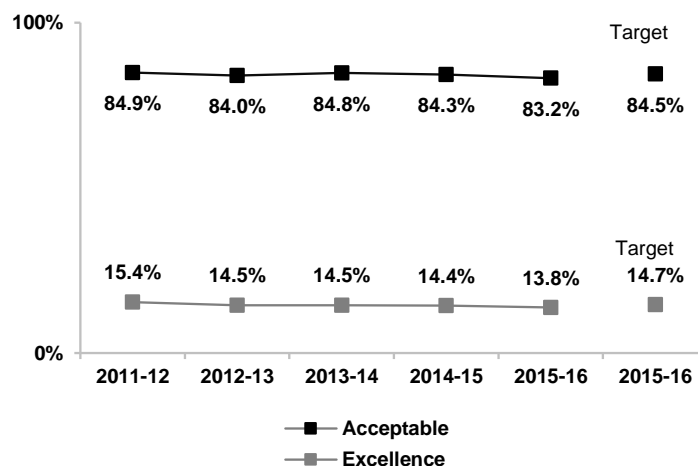
Targets

- The targets for overall Social Studies results at the acceptable standard and at the standard of excellence were not met.

Discussion

- The Social Studies measure is an average of the results in the following two subjects, weighted by the total number of individuals that wrote each of the exams:
 - Social Studies 30-1
 - Social Studies 30-2
- The overall proportions of students achieving the acceptable standard and the standard of excellence have declined over time.

Overall Percentages of Students Who Achieved Standards on Diploma Examinations in Social Studies



Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall results for Social Studies are a weighted average of results for the two Social Studies subjects.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, diploma examinations, pages 61-62.

Discussion (continued):

- Results at the acceptable standard have decreased over time, with some fluctuations, for Social Studies 30-1 and 30-2.
- Results at the standard of excellence have decreased for Social Studies 30-1, and remained stable over time for Social Studies 30-2.

Percentages of Students Writing Social Studies Diploma Examinations Who Achieved Standards

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
Social Studies 30-1	excellence	16.7	15.2	14.2	16.2	14.3	
	acceptable	86.3	85.4	85.6	87.1	84.9	
Social Studies 30-2	excellence	13.7	13.7	14.8	12.5	13.1	
	acceptable	83.0	82.2	83.9	81.3	81.1	
Overall Social Studies	excellence	15.4	14.5	14.5	14.4	13.8	14.7
	acceptable	84.9	84.0	84.8	84.3	83.2	84.5

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the percentages of students who achieved the standard of excellence.
- Equating of diploma examinations has been phased in over the past number of years making results directly comparable from year to year for the equated tests. Results are comparable for Social Studies 30-1 since 2012-13, and Social Studies 30-2 since 2011-12.
- Overall results for Social Studies are a weighted average of results for the two Social Studies subjects.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, diploma examinations, pages 61-62.

1.b Diploma Examination Results In Science

Rationale

- Student results on diploma examinations are a solid indicator of whether high school students are achieving high standards.
- The Science diploma examination measure is an aggregate of four courses. This measure reflects a focus on skills and attitudes needed to solve problems and make decisions, an important outcome for Alberta's K–12 education system.

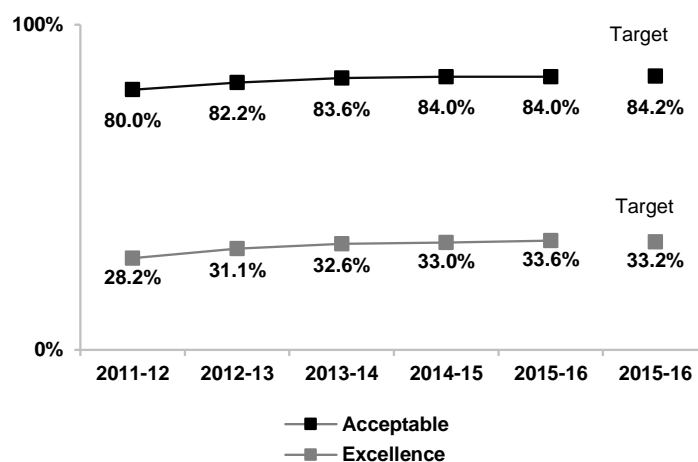
Targets

- The target for overall Science results at the acceptable standard was met; the target at the standard of excellence was exceeded.

Discussion

- The Science measure is an average of the results in the following four subjects, weighted by the total number of individuals that wrote each of the exams:
 - Biology 30
 - Chemistry 30
 - Physics 30
 - Science 30
- The overall proportions of students achieving the acceptable standard and the standard of excellence have increased over time.

Overall Percentages of Students Who Achieved Standards on Diploma Examinations in Science



Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall results for Science are a weighted average of results for the four Science subjects.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, diploma examinations, pages 61-62.

Discussion (continued):

- Results at the acceptable standard have increased over time for Biology 30, Chemistry 30, Physics 30 and Science 30.
- Results at the standard of excellence have increased over time for Biology 30, Chemistry 30, Physics 30 and Science 30.

Percentages of Students Writing Science Diploma Examinations Who Achieved Standards

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
Biology 30	excellence	28.2	32.2	31.8	33.0	32.4	
	acceptable	81.9	84.4	85.2	85.8	85.1	
Chemistry 30	excellence	28.7	31.8	35.2	34.2	34.5	
	acceptable	77.1	78.8	81.5	82.1	81.5	
Physics 30	excellence	30.5	30.4	34.3	35.8	39.8	
	acceptable	81.1	81.5	83.2	83.9	85.8	
Science 30	excellence	22.0	25.8	25.4	26.6	27.6	
	acceptable	79.8	84.1	85.0	83.9	84.4	
Overall Science	excellence	28.2	31.1	32.6	33.0	33.6	33.2
	acceptable	80.0	82.2	83.6	84.0	84.0	84.2

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the percentages of students who achieved the standard of excellence.
- Equating of diploma examinations has been phased in over the past number of years making results directly comparable from year to year for the equated tests. Results are comparable for Biology 30 since 2005-06, Science 30 and Chemistry 30 since 2010-11, and Physics 30 since 2013-14.
- Overall results for Science are a weighted average of results for the four Science subjects.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, diploma examinations, pages 61-62.

Supplementary Information:

English as a Second Language (ESL) Students Diploma Examination Results in English Language Arts

Discussion

- The goal of ESL programs is to provide students with planned systematic instruction and support that will enable them to speak the English language fluently, further their education and become productive and contributing members of Albertan and Canadian society. ESL programs are funded for both Canadian-born and foreign-born students.
- Targets were not set for ESL students in the 2015-18 Business Plan.
- The overall proportion of ESL students that achieved the acceptable standard in English Language Arts has remained stable over time; the proportion that achieved the standard of excellence has increased over time.
- ESL results at the acceptable standard have remained stable over time for English Language Arts 30-1 and English Language Arts 30-2.
- ESL results at the standard of excellence have remained stable over time for English Language Arts 30-1 and increased over time for English Language Arts 30-2.

Percentages of ESL Students Writing English Language Arts Diploma Examinations Who Achieved Standards

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16
English Language Arts 30-1	excellence	2.7	2.0	3.1	2.9	3.3
	acceptable	66.3	63.4	63.9	64.7	68.2
English Language Arts 30-2	excellence	2.6	3.1	4.8	3.1	4.5
	acceptable	72.6	71.3	70.0	72.3	74.8
Overall Language Arts	excellence	2.6	2.5	4.0	3.0	3.9
	acceptable	69.2	67.1	67.0	68.5	71.5

Source: Alberta Education

Notes

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Equating of diploma examinations has been phased in over the past number of years making results directly comparable from year to year for the equated tests. Results are comparable for all years reported from 2011-12 to 2015-16 for English Language Arts 30-1 and 30-2.
- Overall results for English Language Arts are a weighted average of results for the English Language Arts subjects.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results over time.
- See Endnote B, diploma examinations, pages 61-62.

Other Subjects (ESL Students)

Discussion

- The proportion of ESL students achieving the acceptable standard has increased since 2011-12 for Chemistry 30 and Science 30, and remained stable for Biology 30, Physics 30, Social Studies 30-1 and 30-2.
- The proportions of ESL students achieving the standard of excellence have remained stable since 2011-12 for Biology 30, Chemistry 30, Physics 30 and Science 30, and decreased for Social Studies 30-1 and 30-2.

Percentages of ESL Students Writing Diploma Examinations other than English Language Arts Who Achieved Standards

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16
French Language Arts 30-1	excellence	23.5	10.5	5.3	12.5	16.1
	acceptable	94.1	94.7	89.5	95.0	83.9
Français 30-1	excellence	20.7	0.0	6.7	14.8	11.8
	acceptable	96.6	91.7	93.3	88.9	100.0
Social Studies 30-1	excellence	11.8	7.2	8.7	8.3	8.2
	acceptable	79.0	73.3	72.6	74.8	75.0
Social Studies 30-2	excellence	13.4	10.5	11.6	9.5	10.8
	acceptable	72.4	68.7	72.7	69.7	70.9
Biology 30	excellence	25.5	29.9	26.4	26.4	25.9
	acceptable	75.6	77.9	81.0	80.9	78.8
Chemistry 30	excellence	30.2	34.2	33.4	32.2	30.8
	acceptable	71.8	78.0	78.1	76.9	78.5
Physics 30	excellence	31.1	31.4	32.2	30.4	34.6
	acceptable	79.0	75.8	77.4	77.7	78.8
Science 30	excellence	16.6	21.5	19.3	20.1	20.4
	acceptable	68.0	73.0	74.1	74.3	75.5

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the percentages of students who achieved the standard of excellence.
- Equating of diploma examinations has been phased in over the past number of years making results directly comparable from year to year for the equated tests. Results are comparable Biology 30 since 2005-06, Science 30 and Chemistry 30 since 2010-11, Social Studies 30-2 since 2011-12, Social Studies 30-1 since 2012-13, and Physics 30 since 2013-14.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be used when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results over time.
- See Endnote B, diploma examinations, pages 61-62.

DESIRED OUTCOME TWO

The achievement gap between First Nations, Métis and Inuit students and all other students is eliminated

There is work to be done to close the significant achievement gap of First Nations, Métis, and Inuit students. Alberta Education's goal is to ensure all children have equitable opportunities for success. Targeted supports and close collaboration with partners in Alberta and the federal government are required to realize the vision that all First Nations, Métis, and Inuit students in Alberta, including First Nations residing on reserve, achieve or exceed the educational outcomes set for all Alberta students.

2.a First Nations, Métis and Inuit Achievement Test Results in Language Arts

Rationale

- Overall First Nations, Métis and Inuit student achievement of standards on Provincial Achievement Tests is a sound indicator of whether elementary and junior high self-identified First Nations, Métis and Inuit students are achieving high standards in Language Arts, an important outcome for Alberta's K–12 education system.

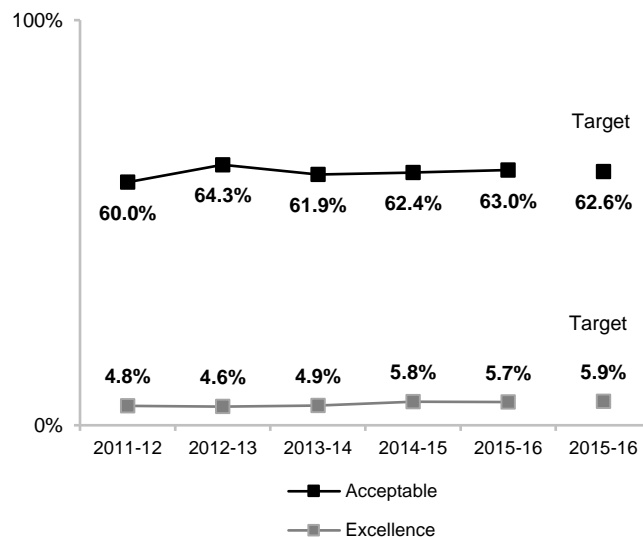
Target

- The target for overall Language Arts Provincial Achievement Test results at the acceptable standard was met. The target at the standard of excellence was met as the current result is not significantly different from the target value.

Discussion

- Overall results in Language Arts are calculated as an average of the results in the following seven subjects, weighted by the number of individuals that were enrolled:
 - English Language Arts 6 and 9
 - French Language Arts 6 and 9
 - Français 6 and 9
 - English Language Arts 9 (Knowledge and Employability)
- The overall proportions of self-identified First Nations, Métis and Inuit students achieving the acceptable standard and the standard of excellence in Language Arts have increased over time.

Overall Percentages of Self-Identified First Nations, Métis and Inuit Students Who Achieved Standards on Grade 6 and 9 Provincial Achievement Tests in Language Arts



Source: Alberta Education

Notes:

- The results reported are solely based on students who identified themselves as Indian/First Nations, Métis, and Inuit. These students may not be fully representative of the population of Aboriginal students. Discretion should be applied when interpreting the results over time.
- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall Language Arts results are a weighted average based on total enrolment in Grades 6 and 9 Language Arts courses.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

Discussion (continued):

- The overall participation rate for self-identified First Nations, Métis and Inuit students taking Language Arts Provincial Achievement Tests increased from 81.4 per cent to 83.8 per cent.

Self-Identified First Nations, Métis and Inuit Participation Rates for Language Arts Provincial Achievement Tests (in percentages)

Subject	2011-12	2012-13	2013-14	2014-15	2015-16
Grade 6					
English Language Arts	87	87	86	87	88
French Language Arts	95	99	93	94	97
Français	*	*	100	100	*
Grade 9					
English Language Arts	76	79	79	80	80
English Language Arts (Knowledge and Employability)	71	76	76	75	74
French Language Arts	100	92	97	89	96
Français	*	*	*	*	*
Overall Language Arts					
	81.4	83.5	82.9	83.3	83.8

Source: Alberta Education

Notes:

- An asterisk (*) indicates data suppression has been applied because fewer than six self-identified First Nations, Métis and Inuit students wrote the test.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).

2.a First Nations, Métis and Inuit Achievement Test Results in Language Arts by Individual Subject for Students in Grades 6 and 9

Rationale

- Self-identified First Nations, Métis and Inuit student results on Provincial Achievement Tests in each grade and subject provide detailed information on whether elementary and junior high self-identified First Nations, Métis and Inuit students are achieving high standards in Language Arts, an important outcome for Alberta's K-12 education system.

Target

- Targets for individual Language Arts subject results were not set for self-identified First Nations, Métis and Inuit students in the 2015-18 Business Plan.

Discussion

- The proportion of self-identified First Nations, Métis and Inuit students achieving the acceptable standard has increased over time for English Language Arts 9 and remained stable for English Language Arts 6.
- The proportion of self-identified First Nations, Métis and Inuit students achieving the standard of excellence has increased for English Language Arts 6 and remained stable for English Language Arts 9.
- As adult literacy studies are not conducted regularly, Grade 9 results in Language Arts are regarded as indicators of literacy. Self-identified First Nations, Métis and Inuit students who achieve the acceptable standard have developed the foundational skills needed to become literate adults. As indicated above, results at the acceptable standard have increased for English Language Arts 9.
- Note that the flooding in southern Alberta in the summer of 2013 and the fire in Fort McMurray in May to June 2016 may have impacted the overall provincial results. Caution needs to be exercised when interpreting the results over time.

Percentages of Self-Identified First Nations, Métis and Inuit Students in Grades 6 and 9 Who Achieved Standards on Provincial Achievement Tests in Language Arts

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
Grade 6							
English Language Arts	excellence	5.1	4.7	5.3	7.3	7.1	
	acceptable	67.7	68.5	68.0	69.0	69.3	
French Language Arts	excellence	14.8	7.9	7.2	10.1	7.8	
	acceptable	85.2	76.4	77.1	76.4	78.9	
Français	excellence	*	*	0.0	0.0	*	
	acceptable	*	*	83.3	85.7	*	
Grade 9							
English Language Arts	excellence	4.1	4.6	4.5	4.0	4.4	
	acceptable	51.9	58.8	55.3	54.5	56.2	
English Language Arts (Knowledge and Employability)	excellence	4.4	2.4	3.8	5.1	3.2	
	acceptable	48.4	57.1	58.2	57.2	54.5	
French Language Arts	excellence	7.7	6.3	3.0	3.7	1.3	
	acceptable	83.1	77.8	73.1	74.1	58.7	
Français	excellence	*	*	*	*	*	
	acceptable	*	*	*	*	*	
Overall Language Arts							
	excellence	4.8	4.6	4.9	5.8	5.7	5.9
	acceptable	60.0	64.3	61.9	62.4	63.0	62.6

Source: Alberta Education

Notes:

- The results reported are solely based on students who identified themselves as Indian/First Nations, Métis, and Inuit. These students may not be fully representative of the population of Aboriginal students. Discretion should be applied when interpreting the results over time.
- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- An asterisk (*) indicates data suppression has been applied because fewer than six self-identified First Nations, Métis and Inuit students wrote the test.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for assessing results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

2.a First Nations, Métis and Inuit Achievement Test Results in Mathematics

Rationale

- Overall First Nations, Métis and Inuit student achievement of standards on Provincial Achievement Tests is a sound indicator of whether elementary and junior high self-identified First Nations, Métis and Inuit students are achieving high standards in Mathematics, an important outcome for Alberta's K–12 education system.

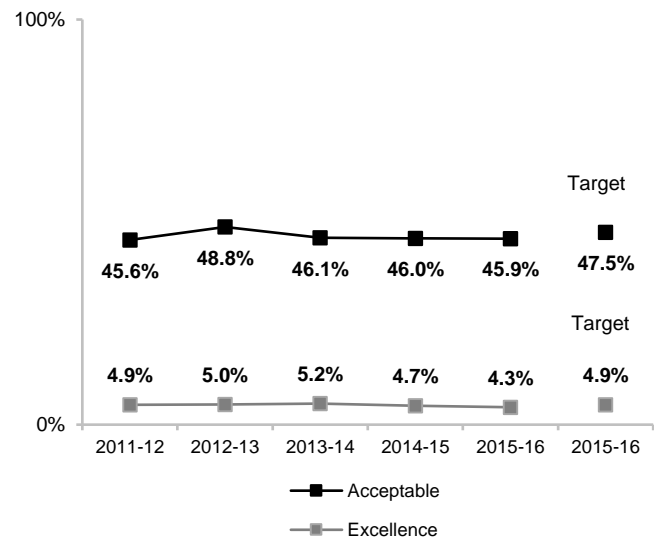
Target

- Targets for overall Mathematics Provincial Achievement Test results at the acceptable standard and at the standard of excellence were not met.

Discussion

- Overall results in Mathematics are calculated as an average of the results in the following three subjects weighted by the number of individuals that were enrolled:
 - Mathematics 6
 - Mathematics 9
 - Mathematics 9 (Knowledge and Employability)
- The overall proportions of self-identified First Nations, Métis and Inuit students achieving the acceptable standard and the standard of excellence in Mathematics have remained stable over time.
- To support student learning in core subjects, the ministry provides programs of study and implementation guides for teachers and develops or authorizes learning resources for students in all grades and subjects.

Overall Percentages of Self-Identified First Nations, Métis and Inuit Students Who Achieved Standards on Grade 6 and 9 Provincial Achievement Tests in Mathematics



Source: Alberta Education

Notes:

- The results reported are solely based on students who identified themselves as Indian/First Nations, Métis, and Inuit. These students may not be fully representative of the population of Aboriginal students. Discretion should be applied when interpreting the results over time.
- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall Mathematics results are a weighted average based on total enrolment in Grades 6 and 9 Mathematics courses.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

Discussion (continued):

- The overall participation rate for self-identified First Nations, Métis and Inuit students taking Mathematics Provincial Achievement Tests increased from 81.8 per cent to 83.9 per cent.

Self-Identified First Nations, Métis and Inuit Participation Rates for Mathematics Provincial Achievement Tests (*in percentages*)

Subject	2011-12	2012-13	2013-14	2014-15	2015-16
Grade 6					
Mathematics	86	87	86	86	87
Grade 9					
Mathematics	77	81	80	81	81
Mathematics (Knowledge and Employability)	79	84	82	82	81
Overall Mathematics					
	81.8	84.4	83.2	83.7	83.9

Source: Alberta Education

Note:

- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).

2.a First Nations, Métis and Inuit Achievement Test Results in Mathematics by Individual Subject for Students in Grades 6 and 9

Rationale

- Self-identified First Nations, Métis and Inuit student results on Provincial Achievement Tests in each grade and subject provide detailed information on whether self-identified elementary and junior high self-identified First Nations, Métis and Inuit students are achieving high standards in Mathematics, an important outcome for Alberta's K-12 education system.

Target

- Targets for individual Mathematics subject results were not set for self-identified First Nations, Métis and Inuit students in the 2015-18 Business Plan.

Discussion

- The proportion of self-identified First Nations, Métis and Inuit students achieving the acceptable standard has increased over time for Mathematics 9 and decreased for Mathematics 6.
- The proportion of self-identified First Nations, Métis and Inuit students achieving the standard of excellence has remained stable over time for Mathematics 6 and 9.

Percentages of Self-Identified First Nations, Métis and Inuit Students in Grades 6 and 9 Who Achieved Standards on Provincial Achievement Tests in Mathematics

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
Grade 6							
Mathematics	excellence	4.4	4.5	4.4	3.9	3.6	
	acceptable	52.3	51.9	50.0	51.2	49.0	
Grade 9							
Mathematics	excellence	4.5	5.1	4.8	4.7	4.7	
	acceptable	37.0	43.0	40.1	37.9	41.1	
Mathematics (Knowledge and Employability)	excellence	10.0	8.8	13.4	10.4	6.1	
	acceptable	50.7	59.1	56.9	58.3	51.6	
Overall Mathematics							
	excellence	4.9	5.0	5.2	4.7	4.3	4.9
	acceptable	45.6	48.8	46.1	46.0	45.9	47.5

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

2.a First Nations, Métis and Inuit Achievement Test Results in Social Studies

Rationale

- Overall First Nations, Métis and Inuit student achievement of standards on Provincial Achievement Tests is a sound indicator of whether elementary and junior high self-identified First Nations, Métis and Inuit students are achieving high standards in Social Studies, an important outcome for Alberta's K–12 education system.

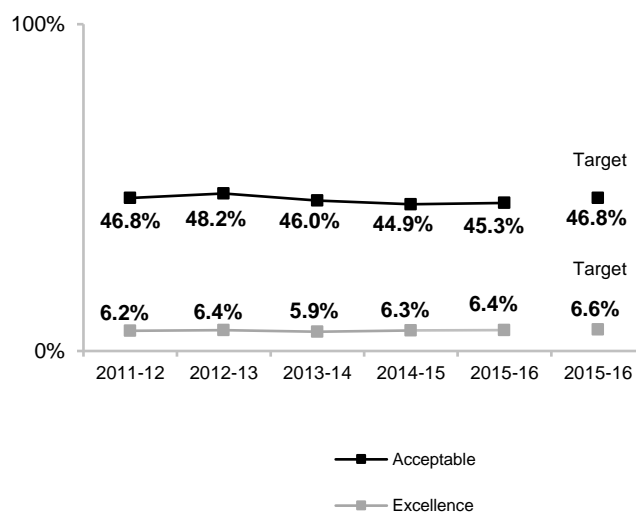
Target

- The target for overall Social Studies Provincial Achievement Test results at the acceptable standard was not met; the target at the standard of excellence was met as the current result is not significantly different from the target value.

Discussion:

- Overall results in Social Studies are calculated as an average of the results in the following three subjects, weighted by the number of individuals that were enrolled:
 - Social Studies 6
 - Social Studies 9
 - Social Studies 9 (Knowledge and Employability)
- The overall proportions of self-identified First Nations, Métis and Inuit students achieving the acceptable standard and the standard of excellence in Social Studies have remained stable over time.

Overall Percentages of Self-Identified First Nations, Métis and Inuit Students Who Achieved Standards on Grades 6 and 9 Provincial Achievement Tests in Social Studies



Source: Alberta Education

Notes:

- The results reported are solely based on students who identified themselves as Indian/First Nations, Métis, and Inuit. These students may not be fully representative of the population of Aboriginal students. Discretion should be applied when interpreting the results over time.
- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall Social Studies results are a weighted average based on total enrolment in Grades 6 and 9 Social Studies courses.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

Discussion (continued):

- The overall participation rate for self-identified First Nations, Métis and Inuit students taking Social Studies Provincial Achievement Tests increased from 82.1 per cent to 83.4 per cent.

Self-Identified First Nations, Métis and Inuit Participation Rates for Social Studies Provincial Achievement Tests (*in percentages*)

Subject	2011-12	2012-13	2013-14	2014-15	2015-16
Grade 6					
Social Studies	88	86	85	85	87
Grade 9					
Social Studies	76	81	80	80	81
Social Studies (Knowledge and Employability)	75	82	79	80	77
Overall Social Studies					
	82.1	84.0	82.6	82.6	83.4

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).

2.a First Nations, Métis and Inuit Achievement Test Results in Social Studies by Individual Subject for Students in Grades 6 and 9

Rationale

- Self-identified First Nations, Métis and Inuit Student results on Provincial Achievement Tests in each grade and subject provide detailed information on whether elementary and junior high self-identified First Nations, Métis and Inuit students are achieving high standards in Social Studies, an important outcome for Alberta's K-12 education system.

Target

- Targets for individual Social Studies subject results were not set for self-identified First Nations, Métis and Inuit students in the 2015-18 Business Plan.

Discussion

- The proportion of self-identified First Nations, Métis and Inuit students achieving the acceptable standard decreased over time for Social Studies 6, and remained stable for Social Studies 9 and Social Studies 9 (Knowledge and Employability).
- The proportion of self-identified First Nations, Métis and Inuit students achieving the standard of excellence has remained stable over time for Social Studies 6 and 9, and Social Studies 9 (Knowledge and Employability).
- Note that the flooding in southern Alberta in the summer of 2013 and the fire in Fort McMurray in May to June 2016 may have impacted the overall provincial results. Caution needs to be exercised when interpreting the results over time.

Percentages of Self-Identified First Nations, Métis and Inuit Students in Grades 6 and 9 Who Achieved Standards on Provincial Achievement Tests in Social Studies

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
Grade 6							
Social Studies	excellence	6.3	5.3	4.7	5.9	6.7	
	acceptable	51.9	50.5	47.9	47.6	49.0	
Grade 9							
Social Studies	excellence	5.8	7.4	7.0	6.7	5.8	
	acceptable	40.2	43.6	42.7	40.6	40.5	
Social Studies (Knowledge and Employability)	excellence	8.4	9.9	7.1	8.4	7.2	
	acceptable	53.6	59.9	58.0	55.2	49.4	
Overall Social Studies							
	excellence	6.2	6.4	5.9	6.3	6.4	6.6
	acceptable	46.8	48.2	46.0	44.9	45.3	46.8

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

2.a First Nations, Métis and Inuit Achievement Test Results in Science

Rationale

- Overall First Nations, Métis and Inuit student achievement of standards on Provincial Achievement Tests is a sound indicator of whether elementary and junior high self-identified First Nations, Métis and Inuit students are achieving high standards in Science, an important outcome for Alberta's K–12 education system.

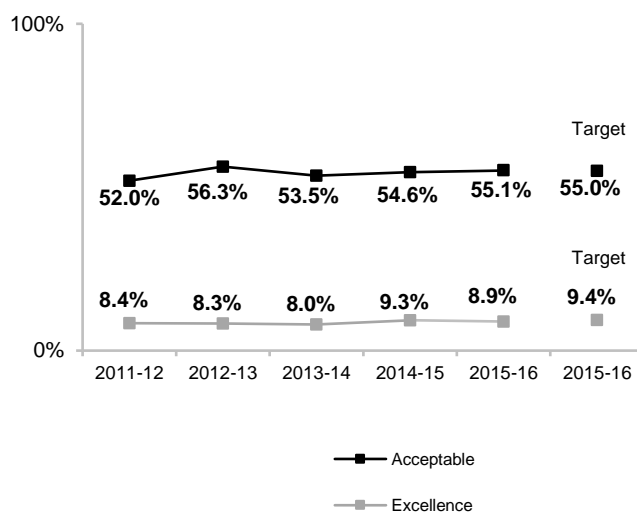
Target

- The target for overall Science Provincial Achievement Test results at the acceptable standard was met. The target at the standard of excellence was met as the current result is not significantly different from the target value.

Discussion

- Overall results in Science are calculated as an average of the results in the following three subjects, weighted by the number of individuals that were enrolled:
 - Science 6
 - Science 9
 - Science 9 (Knowledge and Employability)
- The overall proportion of self-identified First Nations, Métis and Inuit students achieving the acceptable standard in Science has increased over time. The proportion achieving the standard of excellence has remained stable over time.

Overall Percentages of Self-Identified First Nations, Métis and Inuit Students Who Achieved Standards on Grades 6 and 9 Provincial Achievement Tests in Science



Source: Alberta Education

Notes:

- The results reported are solely based on students who identified themselves as Indian/First Nations, Métis, and Inuit. These students may not be fully representative of the population of Aboriginal students. Discretion should be applied when interpreting the results over time.
- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall Science results are a weighted average based on total enrolment in Grades 6 and 9 Science courses.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

Discussion (continued):

- The overall participation rate for self-identified First Nations, Métis and Inuit students taking Science Provincial Achievement Tests increased from 82.9 per cent to 85.0 per cent.

Self-Identified First Nations, Métis and Inuit Participation Rates for Science Provincial Achievement Tests (in percentages)

Subject	2011-12	2012-13	2013-14	2014-15	2015-16
Grade 6					
Science	88	88	86	87	88
Grade 9					
Science	78	82	81	82	83
Science (Knowledge and Employability)	78	85	83	81	80
Overall Science					
	82.9	85.3	83.5	84.4	85.0

Source: Alberta Education

Notes:

- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).

2.a First Nations, Métis and Inuit Achievement Test Results in Science by Individual Subject for Students in Grades 6 and 9

Rationale

- Self-identified First Nations, Métis and Inuit Student results on Provincial Achievement Tests in each grade and subject provide detailed information on whether elementary and junior high self-identified First Nations, Métis and Inuit students are achieving high standards in Science, an important outcome for Alberta's K-12 education system.

Target

- Targets for individual Science subject results were not set for self-identified First Nations, Métis and Inuit students in the 2015-18 Business Plan.

Discussion

- The proportion of self-identified First Nations, Métis and Inuit students achieving the acceptable standard has increased for Science 9, and has remained stable over time for Science 6 and Science 9 (Knowledge and Employability).
- The proportion of self-identified First Nations, Métis and Inuit students achieving the standard of excellence has increased for Science 9, has remained stable over time for Science 6, and has decreased for Science 9 (Knowledge and Employability).
- Note that the flooding in southern Alberta in the summer of 2013 and the fire in Fort McMurray in May to June 2016 may have impacted the overall provincial results. Caution needs to be exercised when interpreting the results over time.

Percentages of Self-identified First Nations, Métis and Inuit Students in Grades 6 and 9 Who Achieved Standards on Provincial Achievement Tests in Science

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
Grade 6							
Science	excellence	10.4	8.8	8.3	10.6	10.3	
	acceptable	57.3	59.0	55.7	57.8	58.6	
Grade 9							
Science	excellence	5.7	7.0	7.4	7.5	7.3	
	acceptable	45.2	51.9	50.4	50.0	50.6	
Science (Knowledge and Employability)	excellence	12.3	13.5	10.8	12.3	8.0	
	acceptable	59.9	64.2	61.4	62.0	58.8	
Overall Science							
	excellence	8.4	8.3	8.0	9.3	8.9	9.4
	acceptable	52.0	56.3	53.5	54.6	55.1	55.0

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Knowledge and Employability courses are designed for students who meet enrollment criteria and learn best through experiences that integrate essential and employability skills in occupational contexts.
- Participation in Provincial Achievement Tests was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 60-61.

2.b First Nations, Métis and Inuit Diploma Examination Results In Language Arts

Rationale

- Self-identified First Nations, Métis and Inuit student results on diploma examinations are a solid indicator of whether high school students are achieving high standards.
- The Language Arts diploma examination measure is an aggregate of four Language Arts courses. This measure reflects a focus on fundamental literacy skills, an important outcome for Alberta's K–12 education system.

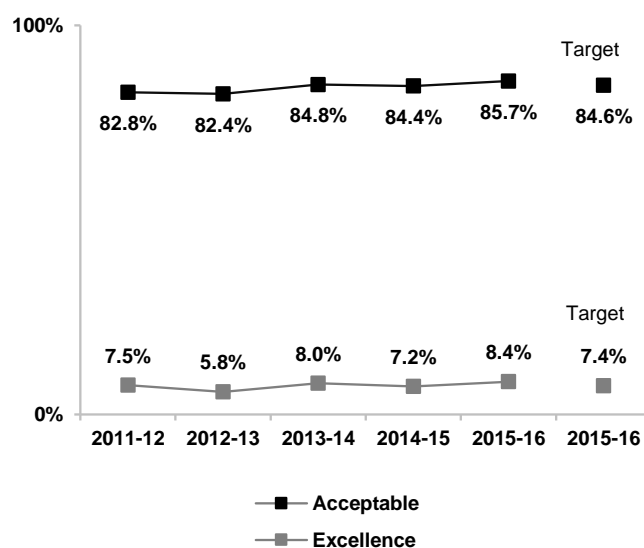
Targets

- The target for overall Language Arts results at the acceptable standard was met and the target at the standard of excellence was exceeded.

Discussion

- The Language Arts measure is an average of the results in the following four subjects, weighted by the total number of individuals that wrote each of the exams:
 - English Language Arts 30-1
 - English Language Arts 30-2
 - French Language Arts 30-1
 - Français 30-1
- The overall proportion of self-identified First Nations, Métis and Inuit students achieving the acceptable standard in Language Arts has increased over time, primarily due to higher results in English Language Arts 30-1.
- The overall proportion of self-identified First Nations, Métis and Inuit students achieving the standard of excellence in Language Arts has remained stable over time.

Overall Percentages of Self-Identified First Nations, Métis and Inuit Students Who Achieved Standards on Diploma Examinations in Language Arts



Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall results for Language Arts are a weighted average of results for the four Language Arts subjects.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, diploma examinations, pages 61-62.

Discussion (continued):

- Results at the acceptable standard have improved over time for English Language Arts 30-1, and have remained stable for English Language Arts 30-2.
- Results at the standard of excellence have remained stable over time for English Language Arts 30-1 and 30-2.

Percentages of Self-Identified First Nations, Métis and Inuit Students Writing Language Arts Diploma Examinations Who Achieved Standards

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
English Language Arts 30-1	excellence	5.1	4.1	5.4	5.4	4.7	
	acceptable	75.1	74.5	79.6	79.4	80.7	
English Language Arts 30-2	excellence	9.3	7.1	9.7	8.4	11.2	
	acceptable	88.3	87.6	88.2	87.4	89.2	
French Language Arts 30-1	excellence	4.8	0.0	7.4	3.1	4.3	
	acceptable	85.7	100.0	92.6	93.8	91.3	
Français 30-1	excellence	n/a	n/a	*	*	*	
	acceptable	n/a	n/a	*	*	*	
Overall Language Arts	excellence	7.5	5.8	8.0	7.2	8.4	7.4
	acceptable	82.8	82.4	84.8	84.4	85.7	84.6

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the percentages of students who achieved the standard of excellence.
- Equating of diploma examinations has been phased in over the past number of years making results directly comparable from year to year for the equated tests. Results are comparable for all years reported from 2011-12 to 2015-16 for English Language Arts 30-1 and 30-2, but not for French Language Arts 30-1 and Français 30-1.
- Overall results for language arts are a weighted average of results for the four language arts subjects.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets and results over time.
- See Endnote B, diploma examinations, pages 61-62.

2.b First Nations, Métis and Inuit Diploma Examination Results In Social Studies

Rationale

- Self-identified First Nations, Métis and Inuit student results on diploma examinations are a solid indicator of whether high school students are achieving high standards.
- The Social Studies diploma examination measure is an aggregate of two courses. This measure reflects a focus on students affirming their place as citizens in an inclusive, democratic society, an important outcome for Alberta's K–12 education system.

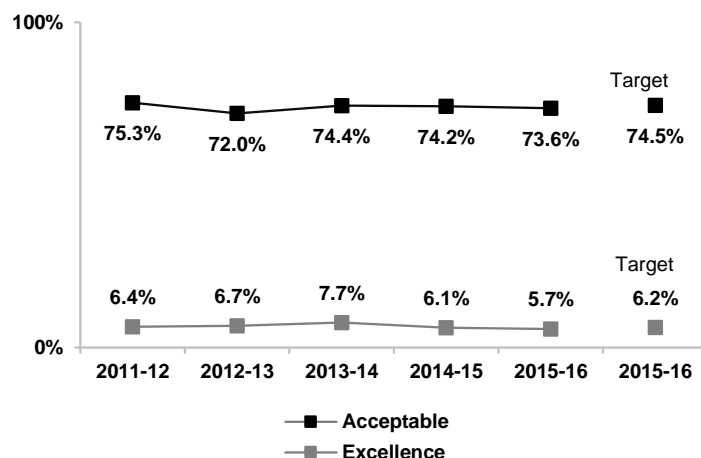
Targets

- The targets for overall Social Studies results at the acceptable standard and at the standard of excellence were met as the current results are not significantly different from the target values.

Discussion

- The Social Studies measure is an average of the results in the following two subjects, weighted by the total number of individuals that wrote each of the exams:
 - Social Studies 30-1
 - Social Studies 30-2
- The overall proportions of self-identified First Nations, Métis and Inuit students achieving the acceptable standard and the standard of excellence in Social Studies have remained stable over time.

Overall Percentages of Self-identified First Nations, Métis and Inuit Students Who Achieved Standards on Diploma Examinations in Social Studies



Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall results for Social Studies are a weighted average of results for the two Social Studies subjects.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, diploma examinations, pages 61-62.

Discussion (continued):

- Results at the acceptable standard have remained stable over time for Social Studies 30-1 and 30-2.
- Results at the standard of excellence have remained stable over time for Social Studies 30-1 and 30-2.

Percentages of Self-identified First Nations, Métis and Inuit Students Writing Social Studies Diploma Examinations Who Achieved Standards

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
Social Studies 30-1	excellence	6.3	5.5	4.8	6.4	6.6	
	acceptable	75.7	72.0	72.3	77.6	72.5	
Social Studies 30-2	excellence	6.5	7.3	9.1	5.9	5.3	
	acceptable	75.1	72.0	75.4	72.7	74.1	
Overall Social Studies	excellence	6.4	6.7	7.7	6.1	5.7	6.2
	acceptable	75.3	72.0	74.4	74.2	73.6	74.5

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the percentages of students who achieved the standard of excellence.
- Equating of diploma examinations has been phased in over the past number of years making results directly comparable from year to year for the equated tests. Results are comparable for Social Studies 30-1 since 2012-13, and Social Studies 30-2 since 2011-12.
- Overall results for Social Studies are a weighted average of results for the two Social Studies subjects.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be used when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, diploma examinations, pages 61-62.

2.b First Nations, Métis and Inuit Diploma Examination Results In Science

Rationale

- Self-identified First Nations, Métis and Inuit Student results on diploma examinations are a solid indicator of whether high school students are achieving high standards.
- The Science diploma examination measure is an aggregate of four courses. This measure reflects a focus on skills and attitudes needed to solve problems and make decisions, an important outcome for Alberta's K-12 education system.

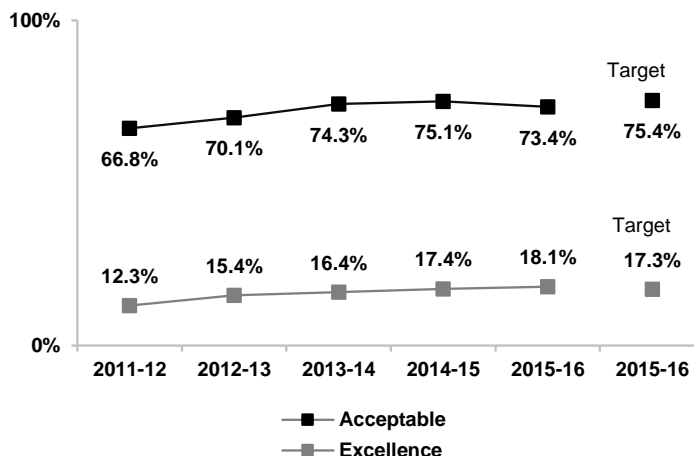
Targets

- The targets for overall Science results at the acceptable standard was met as the current result is not significantly different from the target value; the target at the standard of excellence was met.

Discussion

- The Science measure is an average of the results in the following four subjects, weighted by the total number of individuals that wrote each of the exams:
 - Biology 30
 - Chemistry 30
 - Physics 30
 - Science 30
- The overall proportions of self-identified First Nations, Métis and Inuit students achieving the acceptable standard and the standard of excellence in Science have increased over time.

Overall Percentages of Self-identified First Nations, Métis and Inuit Students Who Achieved Standards on Diploma Examinations in Science



Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- Overall results for Science are a weighted average of results for the four Science subjects.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, diploma examinations, pages 61-62.

Discussion (continued):

- Results at the acceptable standard have remained stable for Biology 30 and Science 30, and have increased over time for Chemistry 30 and Physics 30.
- Results at the standard of excellence have remained stable over time for Science 30, and have increased for Biology 30, Chemistry 30 and Physics 30.

Percentages of Self-identified First Nations, Métis and Inuit Students Writing Science Diploma Examinations Who Achieved Standards

Subject	Standard	2011-12	2012-13	2013-14	2014-15	2015-16	Targets 2015-16
Biology 30	excellence	11.3	14.5	14.3	17.4	16.1	
	acceptable	68.1	72.0	74.9	75.9	72.2	
Chemistry 30	excellence	12.1	14.3	16.4	16.5	17.6	
	acceptable	61.0	59.9	71.5	71.6	72.2	
Physics 30	excellence	11.4	17.5	18.7	20.6	24.5	
	acceptable	63.2	72.2	67.7	78.4	75.5	
Science 30	excellence	16.1	17.7	19.6	16.6	19.2	
	acceptable	77.2	79.1	81.5	76.1	76.1	
Overall Science	excellence	12.3	15.4	16.4	17.4	18.1	17.3
	acceptable	66.8	70.1	74.3	75.1	73.4	75.4

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the percentages of students who achieved the standard of excellence.
- Equating of diploma examinations has been phased in over the past number of years making results directly comparable from year to year for the equated tests. Results are comparable for Biology 30 since 2005-06, Science 30 and Chemistry 30 since 2010-11, and Physics 30 since 2013-14.
- Overall results for Science are a weighted average of results for the four Science subjects.
- Participation in diploma examinations was impacted by the flooding in southern Alberta in June 2013 and by the fire in Fort McMurray in May to June 2016. Caution should be exercised when interpreting the results over time.
- All results have been adjusted to reflect the change from previous data source systems to the Provincial Approach to Student Information (PASI).
- See Endnote A, page 59, for information on assessing results relative to targets, and results over time.
- See Endnote B, diploma examinations, pages 61-62.

Endnotes for Performance Measures

Endnote A: Technical Notes

Assessing Results Over Time

Changes over time are assessed with a two sample Chi-square statistical test for measures based on Provincial Achievement Test and diploma examination results. The test determines whether the difference between two proportions is significant. The calculation of Chi-square is based on the difference between what was observed and what would be expected assuming that the proportions were the same. Under a simple test of proportions, a Chi-square value of 1 represents a difference of one standard deviation, while a Chi-square value of 3.84 is significant at the 5% level. Discussion of results over time is supported by this test of significant difference.

Assessing Results Relative to Targets

Performance targets set expectations for results within specific time frames and are the basis for planning improvements and assessing results that are within the sphere of influence of the ministry and school authorities. They are an important way to gauge whether the education system is improving or falling behind in obtaining desired results in key areas. Targets clearly establish desired levels of performance better than recent performance, to be attained within a specific timeframe. Targets are quantifiable and expressed in numerical terms, such as percentages or ratios. They are used as a key tool to drive, measure, improve and manage performance.

For measures based on achievement tests and on diploma exams, a one sample Chi-square statistical test is used to determine whether the result is significantly different from the target and whether the target is met, not met or exceeded. The magnitude of the difference required between the result and the target to establish significance depends on the sample size, e.g., the number of students writing an exam, and the proportion of students meeting standards.

Trend Lines

Although not appearing in the Annual Report Update, trend lines are an aid to interpreting the results for measures reported. Trend lines augment data interpretation techniques already in use to determine the significance of changes in measure results over time.

Trend lines are used to develop an expected value for a current result given historical results. The expected value can then be compared with the actual result. In this way, trend lines provide a useful method of understanding year-to-year fluctuations and shift the focus from smaller year-to-year changes to providing information about the direction of results over the longer-term. In particular it is of interest whether results are tracking towards the performance target for the measures that have not met targets.

Discussion of results over time for measures with at least three data points are supported by trend lines. The type of trend line used is selected based on an informed interpretation of the data series underlying the trend.

Logarithmic trend lines are appropriate for proportional data, i.e., data expressed as percentages of a whole, and therefore ranging between 0 per cent and 100 per cent, such as the performance measures in this report. A logarithmic trend line is a best-fit straight line that is most useful when the rate of change in the data increases or decreases quickly, then levels out. The leveling out can be seen in the results for some measures in the report, along with examples of year-to-year increases or decreases on other measures.

A logarithmic trend line is calculated using the following formula:

$Y = c \ln(x) + b$, where c and b are constants and $\ln()$ is the natural logarithm function and x is the year of the series.

Endnote B: Methodology for Performance Measures

Described below are the methodologies used to calculate the measures that are derived from provincial assessments of student learning and from other information about Alberta students in the Ministry of Education's data systems.

Definition of Alberta Student

Starting in 2013-14, the definition of an Alberta student is an individual who is registered as of September 30 of the school year in a school located in Alberta, where "school" means a structured learning environment through which an education program is offered to a student by: a board (includes public, separate, Francophone, Lloydminster); an operator of a private school; an early childhood services (ECS) program private operator; the operator of a charter school; a parent giving a home education program; the Minister. It also includes other Alberta-located educational institutions providing ECS to Grade 12 curriculum instruction, specifically Federal (First Nations schools and those operated by Corrections Canada); and provincial authorities (such as Bow Valley College and NorQuest College).

Results for First Nations, Métis and Inuit Students

Calculating results for First Nations, Métis and Inuit students is possible because school jurisdictions have been required to include a voluntary First Nations, Métis and Inuit self-identification question on school registration forms for several years and to report the identifier to the ministry's student data system. Self-identification of students has increased each year. Students' First Nations, Métis and Inuit self-identification information associated with their most recent school registration is used to calculate results. This provides the most complete results and reflects the student's intent to be identified.

Results for English as a Second Language (ESL) Students

The calculation of results for ESL students is based on the number of ESL students for whom funding was provided to school authorities for ESL programming. ESL programming is designed for children/students who require additional English language supports and instruction to achieve grade level expectations in English and other subject areas. This group includes both Canadian-born and foreign-born students. Students funded for an ESL program in the year reflected in the measure are included in the ESL results. For example, Grade 6 students funded for ESL in 2015-16 are included in the Grade 6 ESL Provincial Achievement Test results.

Provincial Achievement Tests

Students in Grades 6 and 9 write Provincial Achievement Tests annually in Language Arts, Mathematics, Science and Social Studies. The results for Grades 6 and 9 provide information on how well Alberta students in public, separate, francophone, charter and accredited private schools are meeting provincial standards in the core academic subjects. Tests are developed and administered by teachers and educators and are based on the provincial curriculum. Results are reported in relation to the acceptable standard and the standard of excellence.

A student achieving the acceptable standard in a specific grade shows an adequate understanding of the core knowledge and adequate basic skills essential to that course. A student achieving the standard of excellence consistently shows a deeper understanding of the concepts of the course by demonstrating an ability to integrate information and evaluate it from various points of view.

For each achievement test, the cut scores for the acceptable standard and the standard of excellence are set initially by a standard-setting committee of about 20 teachers using the Modified Angoff and Bookmark Standard

Setting Procedures. These procedures use teachers' judgment to determine a minimum number of items a student must answer correctly – the cut score – to achieve each standard. In subsequent years, the cut scores for each test are adjusted through test equating. This ensures the standards remain constant even if test difficulty varies slightly from year to year. Whenever curriculum is revised, the standard-setting process is done again.

Results on Provincial Achievement Tests are calculated and presented on the basis of the total number of students in each grade who demonstrated the standards. Results for mathematics, science and social studies include student results on both English and French versions of the tests. Given the large number of students in each grade (more than 40,000), differences in results from year to year of more than 0.4 percentage points on each test are considered significant. French Language Arts and Français courses have higher significant difference values (1.2 to 3.8 percentage points, depending on the number of students in each course), because fewer students are in these courses.

Not all students write the Provincial Achievement Tests. Achievement test results are not available for students who:

- were absent
- were excused from writing by the superintendent because participation would be harmful to the student or the student could not respond to the test instrument
- wrote but whose results were withheld or invalidated
- wrote only one part of the two-part Language Arts test.

It is possible that some of these students, under different circumstances, could have demonstrated achievement of standards on the test.

Participation rates in achievement tests are calculated by dividing the number of students in the grade who wrote the test by the sum of total enrolment in the grade plus the ungraded students who are in the corresponding year of schooling.

Provincial overall results in Language Arts, Mathematics, Social Studies and Science present weighted averages based on the number of students

enrolled in each course. Test results and participation are recorded and aggregated in ministry systems. Provincial, school authority and school results are available at <https://education.alberta.ca/provincial-achievement-tests/about-the-pats/>.

Diploma Examinations

Examinations are administered in all diploma examination courses in January, June and August each year. Examinations are administered in selected courses in November and April. Provincial Assessments are meant to complement but not to replace day-to-day classroom assessment. Results on diploma examinations show how well Alberta students in public, separate, francophone, charter and accredited private schools are meeting provincial expectations as outlined in the Programs of Study. Examination items are developed and standards are established by committees of teachers. The examination design is vetted through committees of stakeholders and by a standard-setting committee of teachers.

A test equating initiative has been phased in for the diploma examination Program so that over time examinations are consistent and the results are comparable. The multiple-choice portion of the examinations contains a set of items common to administrations in subsequent years. By comparing the achievement of students writing in a baseline session with those writing in any subsequent administration on the common items and on the unique items, Alberta Education is able to determine whether or not the examinations are of equal difficulty. Student scores on the subsequent examinations can then be equated back to the baseline examinations to remove any influence that differences in examination difficulty may have on student scores.

Through equating, test results for a particular course are based on an identical standard and, consequently, can be directly compared over time. As a result of implementing the equating process, diploma examination results are comparable over time as follows:

- Biology 30, English Language Arts 30-1, and English Language Arts 30-2 since 2005-06
- Science 30 and Chemistry 30 since 2010-11
- Social Studies 30-2 since 2011-12,
- Social Studies 30-1 since 2012-13 and
- Physics 30 since 2013-14.

Diploma examination results are reported in relation to the acceptable standard and the standard of excellence. Results for mathematics, sciences and social studies include results for both English and French versions of the tests. Provincial overall results present weighted averages based on the numbers of students achieving standards in all diploma examinations. Students achieving the acceptable standard demonstrate that they have met the basic requirements of the course. A mark of 50 per cent on the examination represents the acceptable standard in a diploma examination course. A mark of 80 per cent on the examination represents the standard of excellence and indicates the student has demonstrated performance significantly beyond the minimum requirements of the course. Starting from 2015-16, diploma exams are worth 30% of the overall mark for the diploma course. The school-awarded mark is worth 70%.

Diploma examination results are recorded and aggregated in ministry systems. Provincial, school authority and school results reports are available at

<https://education.alberta.ca/diploma-examination-administration/diploma-examinations-program/>.