

Education

Annual Report Update
2013-2014



The 2013-2014 Annual Report Update is available on Alberta Education's website at www.education.alberta.ca/department/annualreport.aspx

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Printed Version: ISSN No. 1927-4971 ISBN No. 978-1-4601-1912-9

Online Version: ISSN No. 1927-4610 ISBN No. 978-1-4601-1913-6

Education

2013-2014 Annual Report Update: Results Analysis Section Related to Provincial Testing

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Review Engagement Report

To the Members of the Legislative Assembly

I have reviewed one performance measure in the Ministry of Education's Annual Report Update 2013–2014 (a subset of the two measures listed in the report—see note below). The reviewed performance measure is the responsibility of the ministry and is prepared based on the following criteria:

- *Reliability*—The information used in applying performance measure methodology agrees with underlying source data for the current and prior years' results.
- *Understandability*—The performance measure methodology and result is presented clearly.
- *Comparability*—The methodology for performance measure preparation is applied consistently for the current and prior years' results.
- *Completeness*—The goal, performance measure and related target match those included in the ministry's budget 2013.

My review was made in accordance with Canadian generally accepted standards for review engagements and, accordingly, consisted primarily of inquiry, analytical procedures and discussion related to information supplied to me by the ministry.

A review does not constitute an audit and, consequently, I do not express an audit opinion on the performance measure. Further, my review was not designed to assess the relevance and sufficiency of the reviewed performance measure in demonstrating ministry progress towards the related goal.

Based on my review, nothing has come to my attention that causes me to believe that the one performance measure identified as reviewed by the Office of the Auditor General in the ministry's annual report update 2013–2014 is not, in all material respects, presented in accordance with the criteria of reliability, understandability, comparability and completeness as described above.

[Original signed by Merwan N. Saher, FCA]

Auditor General

October 3, 2014

Edmonton, Alberta

Results Analysis

Performance Highlights

- The percentage of students achieving standards on Language Arts diploma examinations exceeded the targets at both the acceptable standard and the standard of excellence. The percentage of students achieving the acceptable standard has increased from 86.6 per cent in 2009-10 to 88.3 per cent in the current year, due primarily to the improvement in the results for English Language 30-1 and 30-2. The overall proportion of students achieving the standard of excellence also increased from 10.2 per cent in 2009-10 to 12.3 per cent in 2013-14.
- Provincial Achievement Test results in Language Arts did not meet overall targets at the acceptable standard or the standard of excellence. The percentage of students that achieved the acceptable standard has declined over time from 81.4 per cent in 2009-10 to 79.5 per cent in 2013-14, while the proportion of students who achieved the standard of excellence has declined from 16.6 per cent to 16.0 per cent.
- The participation rate for Language Arts provincial achievement tests, which is the proportion of enrolled students that write the tests, 89.7 per cent, was similar to the participation rates of previous years.
- The substantial gap between testing results for self-identified First Nations, Métis and Inuit (FNMI) students and the results for all students remains a key challenge for the Kindergarten-Grade 12 education system. In this regard, FNMI results on Language Arts diploma exams met the overall targets at the acceptable standard and at the standard of excellence. The overall percentage of FNMI students achieving the acceptable standard in 2013-14 was 84.1 per cent. In addition, the proportion of FNMI students reaching the standard of excellence has increased from 5.7 per cent in 2009-10 to 8.1 per cent in 2013-14.
- FNMI results on Language Arts provincial achievement tests did not meet the overall targets at the acceptable standard or at the standard of excellence. The proportion of FNMI students who achieved the acceptable standard has remained stable over time, with a percentage of 61.8 per cent in 2009-10 and 61.3 per cent in the current year. The percentage of FNMI students that achieved the standard of excellence, 4.7 per cent in the current year, has remained stable over the same period.
- Over the past five years, the FNMI participation rate for Language Arts provincial achievement tests, which is the proportion of enrolled self-identified FNMI students that write the tests, has risen steadily from 80.3 per cent in 2009-10 to 82.5 per cent in 2013-14.
- Alberta Education is currently working with education partners to modernize provincial curriculum (programs of study, assessments, learning and teaching resources) to reflect the 2030 vision for K-12 education Albertans provided through *Inspiring Education: A Dialogue with Albertans (2008)*. To this end, the ministry has begun phasing out Provincial Achievement Tests. The new Student Learning Assessments will better inform student learning by collecting valuable information at the beginning of the school year, while also including interactive approaches to help educators and parents understand how well students can apply what they have learned. Along with the piloting of new Student Learning Assessments for Grade 3 in 2014, authority participation in the Grade 3 Provincial Achievement Tests was optional.

Performance Measures Summary Table

Selecting measures and setting targets to assess, report and improve upon the performance of the Early Childhood Services to Grade 12 education system is key to being accountable for results. The performance measures and targets for 2013-14 are established in the Ministry of Education Business Plan for 2013-16.

Targets are considered met if the current result is not significantly different from the target value using statistical tests. Depending on the performance measure, this significant difference may vary. The table below presents a summary of performance measures reported in the Discussion and Analysis of Results section, pages 8-31, including:

- 2013-14 target and most recent results
- change over time (five-year trend).

Goal/Performance Measures			Prior Years' Results				Target	Current Actual
2 Success for every student								
2.a	Overall percentages of students who achieved standards on provincial achievement tests: ^{1,2}							
	Language Arts, all students	acceptable excellence	81.4% 16.6%	81.3% 17.2%	80.3% 16.8%	80.5% 15.5%	82.5% 18.4%	79.5% 16.0%
			2009-10	2010-11	2011-12	2012-13		2013-14
	Language Arts, FNMI students	acceptable excellence	61.8% 5.2%	61.1% 5.1%	59.7% 4.7%	64.0% 4.3%	64.7% 7.9%	61.3% 4.7%
			2009-10	2010-11	2011-12	2012-13		2013-14
2.b	Overall percentages of students who achieved standards on diploma examinations: ³							
	Language Arts, all students*	acceptable excellence	86.6% 10.2%	86.1% 9.9%	87.4% 11.2%	87.2% 10.6%	87.6% 11.4%	88.3% 12.3%
			2009-10	2010-11	2011-12	2012-13		2013-14
	Language Arts, FNMI students	acceptable excellence	82.6% 5.7%	84.2% 4.4%	83.1% 7.0%	81.6% 5.7%	85.5% 8.6%	84.1% 8.1%
			2009-10	2010-11	2011-12	2012-13		2013-14

*Indicates Performance Measure that has been reviewed by the Office of the Auditor General

¹ Targets and historical results have been revised to remove Grade 3 Provincial Achievement Test results.

² Results for 2012-13 have been restated to exclude students that did not write Provincial Achievement Tests because of the flooding in southern Alberta in 2013.

³ Diploma examination results for 2012-13 have been restated to include additional diploma examination rewrite results.

The performance measure indicated with an asterisk was selected for review by ministry management based on the following criteria established by government:

- enduring measures that best represent the goal,
- measures for which new data is available, and
- measures that have well established methodology.

Notes: For information on assessing change over time and target achievement, please refer to Endnote A, page 32.

For information on the methodology employed in the test measures please refer to Endnote B, pages 33-35.

Discussion and Analysis of Results

GOAL 2

Success for Every Student

Success for every student means that students are engaged and demonstrate ethical citizenship and entrepreneurship, while being proficient in literacy and numeracy, and have achieved Alberta's student learning outcomes. The ministry, in cooperation with stakeholders and partners, assists students in achieving success by providing flexible programming options designed to address the diversity of student needs. The ministry supports First Nations, Métis and Inuit student success by raising awareness of their unique needs, developing culturally relevant learning resources and programming opportunities, focusing on continuous improvement through appropriate accountability mechanisms and working collaboratively with First Nations, Métis and Inuit communities.

Goal 2 Performance Measures

2.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.

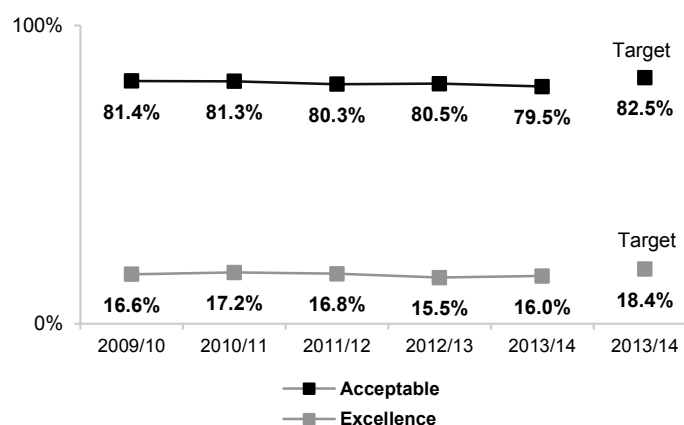
Target

- The targets for overall Language Arts provincial achievement test results at the acceptable standard and at the standard of excellence were not met.

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
 - English Language Arts 9 (Knowledge and Employability)
 - French Language Arts 6 and 9
 - Français 6 and 9
- For 2013-14, authority participation in the Grade 3 Provincial Achievement Tests was optional and the results are not comparable with prior years. Targets and historical results have been revised to remove Grade 3 Provincial Achievement Test results.
- Overall results in Language Arts at the acceptable standard and at the standard of excellence 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 Percentage of Students who Achieved Standards on Provincial Achievement Tests in English and French Language Arts and Français



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. In previous years this measure did not include results of English Language Arts 9 (Knowledge and Employability).
- See Endnote A, page 32, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 33-34.

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

Subject	2009/10	2010/11	2011/12	2012/13 ¹	2013/14
Grade 6					
English Language Arts	91	91	91	91	90
French Language Arts	98	97	97	98	98
Français	98	98	98	98	97
Grade 9					
English Language Arts	90	89	89	88	88
English Language Arts (Knowledge and Employability)	82	82	80	80	80
French Language Arts	98	97	97	97	97
Français	98	98	96	96	95
Overall Language Arts					
	90.5	90.2	90.1	90.1	89.7

¹ Results for 2012-13 have been restated to exclude students that did not write Provincial Achievement Tests because of the flooding in southern Alberta in 2013.

Source: Alberta Education

Notes:

- Participation in English Language Arts, French Language Arts and Français Provincial Achievement Tests is included in the overall participation rates to report overall participation on the same basis as the overall results.

2.a Achievement Test Results in Language Arts by 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.
- 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 remained stable over time for French Language Arts 9 and have declined for English Language Arts 9.

Target

- The targets for individual subject results were not set in the 2013-16 Business Plan.

Discussion

- The proportion of students achieving the acceptable standard has decreased over time for English Language Arts 6 and 9 and English Language Arts 9 (Knowledge and Employability). Results for French Language Arts 6 and 9, and Français 6 and 9 have remained stable.
- The proportion of students achieving the standard of excellence has decreased over time for English Language Arts 6 and English Language Arts 9 (Knowledge and Employability). Results for English Language Arts 9, French Language Arts 6 and 9, and Français 6 have remained stable, while the proportion of students achieving the standard of excellence has increased for Français 9.
- Note that the flooding in southern Alberta in the summer of 2013 resulted in a reduction of approximately one-third in the number of students writing the Grade 9 English Language Arts Provincial Achievement Test and this may have impacted the overall provincial result for that year. Caution needs to be exercised when comparing this result with current and prior years.
- For 2013-14, authority participation in the Grade 3 Provincial Achievement Tests was optional and the results are not comparable with prior years.

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

Subject	Standard	2009/10	2010/11	2011/12	2012/13 ¹	2013/14 ²	Targets 2013/14
Grade 6							
English Language Arts	excellence	19	19	18	16	18	
	acceptable	83	83	83	83	82	
French Language Arts	excellence	16	17	17	16	16	
	acceptable	88	89	89	89	88	
Français	excellence	18	18	22	22	17	
	acceptable	91	92	91	94	91	
Grade 9							
English Language Arts	excellence	15	16	16	15	15	
	acceptable	79	79	77	77	76	
English Language Arts (Knowledge and Employability)	excellence	8	8	6	4	4	
	acceptable	67	67	61	62	63	
French Language Arts	excellence	12	15	12	14	11	
	acceptable	86	89	88	87	86	
Français	excellence	13	16	16	15	18	
	acceptable	84	90	85	84	86	
Overall Language Arts							
	excellence	16.6	17.2	16.8	15.5	16.0	18.4
	acceptable	81.4	81.3	80.3	80.5	79.5	82.5

¹ Results for 2012-13 have been restated to exclude students that did not write Provincial Achievement Tests because of the flooding in southern Alberta in 2013.

² For 2013-14, authority participation in the Grade 3 Provincial Achievement Tests was optional and the results are not comparable with prior years. Targets and historical results have been revised to remove Grade 3 Provincial Achievement Test results.

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- See Endnote A, page 32, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, page 33-34.

Supplementary Information: Other Subjects

Discussion

- The proportion of students achieving the acceptable standard has remained stable since 2009-10 for Science 9, and decreased for Science 6 and Science 9 (Knowledge and Employability).
- The proportion of students achieving the standard of excellence has increased since 2009-10 for Science 9, remained stable for Science 9 (Knowledge and Employability) and decreased for Science 6.
- The proportion of students achieving the acceptable standard has remained stable since 2009-10 for Social Studies 6 and Social Studies 9 (Knowledge and Employability) and decreased for Social Studies 9.
- The proportion of students that achieved the standard of excellence has increased since 2009-10 for Social Studies 9, remained stable for Social Studies 6, and declined for Social Studies 9 (Knowledge and Employability).
- The proportion of students that achieved the acceptable standard and the proportion of students that achieved the standard of excellence have remained stable since 2009-10 for Mathematics 9 (Knowledge and Employability).

Participation Rates for Provincial Achievement Tests in Other Subjects (*in percentages*)

Subject	2009/10	2010/11	2011/12	2012/13 ¹	2013/14
Grade 6					
Mathematics	–	91	91	91	91
Science	90	90	91	91	90
Social Studies	90	91	91	90	90
Grade 9					
Mathematics	–	89	90	89	89
Mathematics (Knowledge & Employability)	87	87	87	88	86
Science	90	90	90	89	90
Science (Knowledge & Employability)	87	87	86	87	86
Social Studies	90	89	89	89	89
Social Studies (Knowledge & Employability)	85	84	84	87	85

¹ Results for 2012-13 have been restated to exclude students that did not write Provincial Achievement Tests because of the flooding in southern Alberta in 2013.

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.
- A dash (–) indicates that data are not available.

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

Subject	Standard	2009/10	2010/11	2011/12	2012/13 ¹	2013/14 ²
Grade 6						
Mathematics	excellence	–	18	17	16	15
	acceptable	–	74	75	73	73
Science	excellence	26	25	28	26	25
	acceptable	77	76	78	77	76
Social Studies	excellence	16	19	19	19	17
	acceptable	71	71	73	73	70
Grade 9						
Mathematics	excellence	–	17	18	18	17
	acceptable	–	66	66	67	67
Mathematics (Knowledge & Employability)	excellence	15	15	15	15	15
	acceptable	66	65	62	66	63
Science	excellence	18	21	22	20	22
	acceptable	74	75	74	73	73
Science (Knowledge & Employability)	excellence	14	15	17	17	15
	acceptable	67	69	68	68	64
Social Studies	excellence	19	19	19	19	20
	acceptable	69	67	69	66	66
Social Studies (Knowledge & Employability)	excellence	16	14	14	13	11
	acceptable	65	62	64	65	62

¹ Results for 2012-13 have been restated to exclude students that did not write Provincial Achievement Tests because of the flooding in southern Alberta in 2013.

² For 2013-14, authority participation in the Grade 3 Provincial Achievement Tests was optional and the results are not comparable with prior years.

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.
- A dash (–) indicates that data are not available.
- See Endnote A, page 32, for information on assessing results over time.
- See Endnote B, Provincial Achievement Tests, pages 33-34.

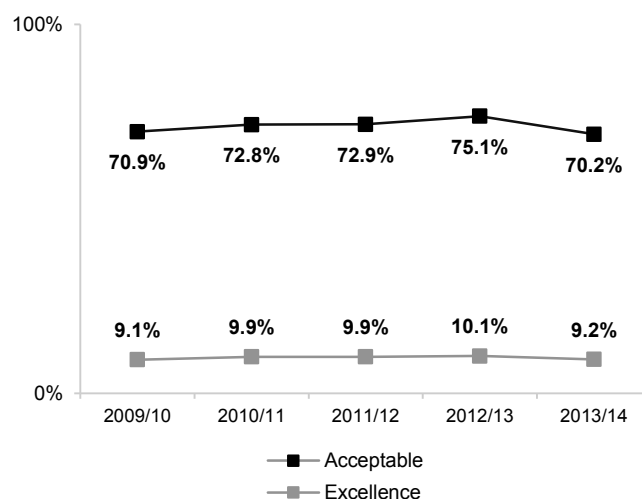
Supplementary Information:

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 programming is 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 remained stable over time at both the acceptable and excellence levels.
- No targets were set for this subgroup.

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



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.
- See Endnote A, page 32, for information on assessing results over time.
- See Endnote B, Provincial Achievement Tests, pages 33-34.

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

Discussion:

- The participation rate for ESL students taking English Language Arts provincial achievement tests, 86.9 per cent in the current year, has remained stable.
- The proportions of ESL students achieving the acceptable standard and the proportion achieving the standard of excellence in English Language Arts subjects have remained stable over time.

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

Subject	2009/10	2010/11	2011/12	2012/13 ¹	2013/14
Grade 6					
English Language Arts	89	89	90	91	89
Grade 9					
English Language Arts	84	85	86	87	83
English Language Arts (Knowledge & Employability)	82	84	71	75	77
Overall English Language Arts					
	87.1	87.6	88.1	89.5	86.9

¹ Results for 2012-13 have been restated to exclude students that did not write Provincial Achievement Tests because of the flooding in southern Alberta in 2013.

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

Subject	Standard	2009/10	2010/11	2011/12	2012/13 ¹	2013/14 ²
Grade 6						
English Language Arts	excellence	11	12	11	11	10
	acceptable	75	77	78	78	76
Grade 9						
English Language Arts	excellence	7	8	8	9	8
	acceptable	64	67	67	65	62
English Language Arts (Knowledge & Employability)	excellence	4	2	0	3	1
	acceptable	52	61	38	52	56
Overall English Language Arts						
	excellence	9.1	9.9	9.9	10.1	9.2
	acceptable	70.9	72.8	72.9	75.1	70.2

¹ Results for 2012-13 have been restated to exclude students that did not write Provincial Achievement Tests because of the flooding in southern Alberta in 2013.

² For 2013-14, authority participation in the Grade 3 Provincial Achievement Tests was optional and the results are not comparable with prior years.

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the students who achieved the standard of excellence.
- See Endnote A, page 32, for information on assessing results over time.
- See Endnote B, Provincial Achievement Tests, pages 33-34

Other Subjects (ESL Students)

Discussion

- The proportion of ESL students achieving the acceptable standard has remained stable since 2009-10 in the subjects listed in the table below, except for Social Studies 9 where it has declined.
- The proportion of ESL students reaching the standard of excellence has been stable with some fluctuations since 2009-10 in the subjects listed in the table below.

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	2009/10	2010/11	2011/12	2012/13 ¹	2013/14 ²
Grade 6						
French Language Arts	excellence	15	14	17	17	25
	acceptable	80	80	92	87	89
Français	excellence	14	13	21	21	16
	acceptable	87	87	89	93	89
Mathematics	excellence	–	17	15	16	14
	acceptable	–	68	71	70	71
Science	excellence	18	17	20	19	17
	acceptable	69	68	71	72	69
Social Studies	excellence	11	13	15	15	11
	acceptable	63	64	68	68	64
Grade 9						
French Language Arts	excellence	10	20	11	15	10
	acceptable	80	78	82	82	85
Français	excellence	9	15	8	3	8
	acceptable	79	85	73	66	72
Mathematics	excellence	–	19	18	19	17
	acceptable	–	63	62	61	61
Mathematics (Knowledge & Employability)	excellence	15	11	9	19	11
	acceptable	51	50	52	54	55
Science	excellence	15	18	19	15	17
	acceptable	62	68	67	64	62
Science (Knowledge & Employability)	excellence	7	9	5	12	7
	acceptable	56	62	47	59	56
Social Studies	excellence	13	13	13	13	12
	acceptable	58	60	62	56	54
Social Studies (Knowledge & Employability)	excellence	14	13	10	6	8
	acceptable	60	54	58	60	56

¹ Results for 2012-13 have been restated to exclude students that did not write Provincial Achievement Tests because of the flooding in southern Alberta in 2013.

² For 2013-14, authority participation in the Grade 3 Provincial Achievement Tests was optional and the results are not comparable with prior years.

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.
- A dash (–) indicates that data are not available.
- See Endnote A, page 32, for information on assessing results over time.
- See Endnote B, Provincial Achievement Tests, pages 33-34.

2.a Overall First Nations, Métis and Inuit (FNMI) Achievement Test Results in Language Arts

Rationale:

- Overall FNMI student achievement of standards on provincial achievement tests is a sound indicator of whether self-identified FNMI elementary and junior high students are achieving high standards in language arts (English and French Language Arts and Français), an important outcome for Alberta's K–12 education system.

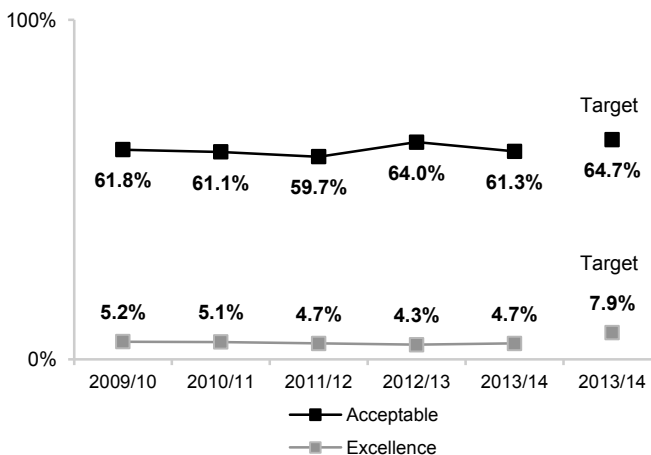
Target:

- The targets for overall Language Arts provincial achievement test results at the acceptable standard and at the standard of excellence were not met.

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 (Note that two subjects, Français 6 and 9, were excluded from the calculations as either no students or less than six students wrote these tests):
 - English Language Arts 6 and 9
 - English Language Arts 9 (Knowledge and Employability)
 - French Language Arts 6 and 9
 - Français 6 and 9
- For 2013-14, authority participation in the Grade 3 Provincial Achievement Tests was optional and the results are not comparable with prior years. Targets and historical results have been revised to remove Grade 3 Provincial Achievement Test results.
- Overall FNMI results in Language Arts at the acceptable standard and at the standard of excellence have remained stable over time with minor fluctuations.

Overall Percentages of Self-Identified FNMI Students who Achieved Standards on Grades 6 and 9 Language Arts Provincial Achievement Tests



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 results are a weighted average based on total enrolment in Grades 6 and 9 Language Arts courses.
- Due to the flooding in southern Alberta in the summer of 2013, the number of students writing the Grade 9 English Language Arts Provincial Achievement Test was reduced and this may have impacted the overall average for that year.
- See Endnote A, page 32, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 33-34.

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

Subject	2009/10	2010/11	2011/12	2012/13 ¹	2013/14
Grade 6					
English Language Arts	84	86	87	87	86
French Language Arts	95	97	95	98	92
Français	*	*	*	*	*
Grade 9					
English Language Arts	76	76	76	79	79
English Language Arts (Knowledge & Employability)	75	73	70	76	77
French Language Arts	98	95	100	92	97
Français	n/a	*	n/a	*	*
Overall Language Arts					
	80.3	80.9	81.4	83.3	82.5

¹Results for 2012-13 have been restated to exclude students that did not write Provincial Achievement Tests because of the flooding in southern Alberta in 2013.

Source: Alberta Education

Notes:

- Participation in English Language Arts, French Language Arts and Français Provincial Achievement Tests is included in the overall participation rates to report overall participation on the same basis as the overall results.
- An asterisk (*) indicates suppression has been applied because fewer than six students wrote the test, while n/a indicates no FNMI students wrote the test.

2.a FNMI Achievement Test Results in Language Arts—by Subject and Grade

Rationale:

- FNMI student results on provincial achievement tests in each grade and subject provide detailed information on whether self-identified FNMI 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 2013-16 Business Plan.

Discussion:

- From 2009-10 to 2013-14, the participation rate for FNMI students taking Language Arts provincial achievement tests increased from 80.3 per cent to 82.5 per cent.
- The proportion of FNMI students achieving the acceptable standard and the standard of excellence has remained stable for English Language Arts 6 and 9, French Language Arts 6 and 9, and English Language Arts 9 (Knowledge and Employability).
- As adult literacy studies are not conducted regularly, Grade 9 results in Language Arts are regarded as indicators of literacy. FNMI 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 remained stable for English Language Arts 9 and French Language Arts 9.
- Note that the flooding in southern Alberta in the summer of 2013 resulted in a reduction in the number of students writing the Grade 9 English Language Arts Provincial Achievement Test and this may have impacted the overall result for that year.

Percentages of Self-Identified FNMI Students in Grades 6 and 9 who Achieved Standards on Provincial Achievement Tests in Language Arts

Subject	Standard	2009/10	2010/11	2011/12	2012/13 ¹	2013/14 ²	Targets 2013/14
Grade 6							
English Language Arts	excellence	6	6	5	4	5	
	acceptable	68	66	67	68	67	
French Language Arts	excellence	3	3	14	9	8	
	acceptable	70	80	85	78	75	
Français	excellence	n/a	*	*	*	*	
	acceptable	n/a	*	*	*	*	
Grade 9							
English Language Arts	excellence	4	4	4	4	4	
	acceptable	55	55	51	59	55	
English Language Arts (Knowledge and Employability)	excellence	5	7	4	2	4	
	acceptable	59	57	49	56	58	
French Language Arts	excellence	11	2	8	5	3	
	acceptable	71	75	83	79	74	
Français	excellence	n/a	*	n/a	*	*	
	acceptable	n/a	*	n/a	*	*	
Overall Language Arts							
	excellence	5.2	5.1	4.7	4.3	4.7	7.9
	acceptable	61.8	61.1	59.7	64.0	61.3	64.7

¹ Results for 2012-13 have been restated to exclude students that did not write Provincial Achievement Tests because of the flooding in southern Alberta in 2013.

² For 2013-14, authority participation in the Grade 3 Provincial Achievement Tests was optional and the results are not comparable with prior years. Targets and historical results have been revised to remove Grade 3 Provincial Achievement Test results.

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 suppression has been applied because fewer than six self-identified FNMI students wrote the test, while n/a indicates no self-identified FNMI students wrote the test.
- Overall language arts measure results include only English Language Arts 6 and 9, French Language Arts 6 and 9, and English Language Arts 9 (Knowledge and Employability).
- See Endnote A, page 32, for assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 33-34.

Supplementary Information: Other Subjects (FNMI Students)

Discussion:

- The participation rate for FNMI students taking provincial achievement tests has increased significantly for a number of subjects including Mathematics 9, Social Studies 9 and Science 9.
- The proportion of students achieving the acceptable standard and the standard of excellence has increased since 2009-10 for Science 9, remained stable for Science 9 (Knowledge and Employability) and declined for Science 6.
- The proportion of students achieving the acceptable standard and the standard of excellence remained stable since 2009-10 for both Social Studies 6 and 9. For Social Studies 9 (Knowledge and Employability) the proportion of students achieving the acceptable standard has remained stable since 2009-10 while the proportion achieving the standard of excellence has declined.

FNMI Participation Rates for Provincial Achievement Tests in Other Subjects (*in percentages*)

Subject	2009/10	2010/11	2011/12	2012/13 ¹	2013/14
Grade 6					
Mathematics	–	84	86	87	86
Science	84	86	88	88	86
Social Studies	85	86	88	86	85
Grade 9					
Mathematics	–	76	77	81	80
Mathematics (Knowledge & Employability)	82	80	79	84	82
Science	77	78	78	82	81
Science (Knowledge & Employability)	82	80	78	85	82
Social Studies	77	75	76	81	80
Social Studies (Knowledge & Employability)	82	73	75	82	79

¹ Results for 2012-13 have been restated to exclude students that did not write Provincial Achievement Tests because of the flooding in southern Alberta in 2013.

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.
- A dash (–) indicates that data are not available.

Percentages of Self-Identified FNMI Students in Grades 6 and 9 who Achieved Standards on Provincial Achievement Tests in Other Subjects

Subject	Standard	2009/10	2010/11	2011/12	2012/13 ¹	2013/14 ²
Grade 6						
Mathematics	excellence	–	5	4	5	4
	acceptable	–	49	52	52	49
Science	excellence	10	9	10	9	8
	acceptable	58	54	57	59	55
Social Studies	excellence	5	6	6	5	5
	acceptable	49	48	52	50	47
Grade 9						
Mathematics	excellence	–	4	4	5	5
	acceptable	–	34	37	43	40
Mathematics (Knowledge & Employability)	excellence	11	13	10	9	14
	acceptable	54	55	51	60	57
Science	excellence	5	6	6	7	7
	acceptable	45	46	45	52	50
Science (Knowledge & Employability)	excellence	10	11	12	13	11
	acceptable	58	63	60	64	62
Social Studies	excellence	6	5	6	7	7
	acceptable	41	38	40	44	42
Social Studies (Knowledge & Employability)	excellence	12	10	8	10	7
	acceptable	56	51	53	60	58

¹ Results for 2012-13 have been restated to exclude students that did not write Provincial Achievement Tests because of the flooding in southern Alberta in 2013.

² For 2013-14, authority participation in the Grade 3 Provincial Achievement Tests was optional and the results are not comparable with prior years.

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.
- A dash (–) indicates that data are not available.
- See Endnote A, page 32, for information on assessing results relative to targets, and results over time.
- See Endnote B, Provincial Achievement Tests, pages 33-34.

2.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 reflects a focus on fundamental literacy skills, an important outcome for Alberta's K–12 education system.

Targets:

- The targets for overall Language Arts results at the acceptable standard and at the standard of excellence were 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 proportion of students achieving the acceptable standard and the proportion achieving the standard of excellence have increased over time, primarily due to higher results in English Language Arts 30-1 and 30-2.

Percentages of Students Writing Language Arts Diploma Examinations who Achieved Standards

Subject	Standard	2009/10	2010/11	2011/12	2012/13 ¹	2013/14	Targets 2013/14
English Language Arts 30-1	excellence	10	10	11	10	12	
	acceptable	85	84	86	86	87	
English Language Arts 30-2	excellence	10	9	11	11	13	
	acceptable	89	89	90	89	90	
French Language Arts 30-1	excellence	16	14	13	12	14	
	acceptable	94	95	96	95	97	
Français 30-1	excellence	16	20	19	18	29	
	acceptable	94	94	96	97	99	
Overall Language Arts	excellence	10.2	9.9	11.2	10.6	12.3	11.4
	acceptable	86.6	86.1	87.4	87.2	88.3	87.6

¹Restated to include additional diploma examination rewrite results.

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 2009-10 to 2013-14 for English Language Arts 30-1 and 30-2.
- Overall results for language arts are a weighted average of results for the four language arts subjects.
- See Endnote A, page 32, for information on assessing results relative to targets, and results over time.
- See Endnote B, Diploma Examinations, pages 34-35.

Supplementary Information:

Other Subjects

Discussion:

- The proportion of students that achieved the acceptable standard has increased since 2009-10 for Social Studies 30-1, Biology 30, Chemistry 30, Physics 30 and Science 30; the proportion has declined for Social Studies 30-2.
- The proportion of students that achieved the standard of excellence has increased since 2009-10 for Social Studies 30-2, Biology 30, Chemistry 30, Physics 30 and Science 30; the proportion has declined for Social Studies 30-1.

Percentages of Students Writing Diploma Examinations other than Language Arts who Achieved Standards

Subject	Standard	2009/10	2010/11	2011/12	2012/13 ¹	2013/14
Mathematics 30-1	excellence	–	–	–	35	27
	acceptable	–	–	–	80	75
Mathematics 30-2	excellence	–	–	–	10	15
	acceptable	–	–	–	69	71
Social Studies 30-1	excellence	16	15	17	15	14
	acceptable	84	83	86	85	86
Social Studies 30-2	excellence	14	16	14	14	15
	acceptable	85	86	83	82	84
Biology 30	excellence	28	30	28	32	32
	acceptable	81	82	82	84	85
Chemistry 30	excellence	30	28	28	32	35
	acceptable	79	75	77	79	81
Physics 30	excellence	20	28	30	30	34
	acceptable	74	77	81	81	83
Science 30	excellence	23	21	22	26	26
	acceptable	80	80	80	84	85

¹Restated to include additional diploma examination rewrite results.

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the percentages of students who achieved the standard of excellence.
- A dash (–) indicates data are not available.
- 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, Social Studies 30-2 since 2011-12, Social Studies 30-1 since 2012-13 and Physics 30 since 2013-14.
- See Endnote A, page 32, for information on assessing results over time.
- See Endnote B, Diploma Examinations, pages 34-35.

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 programming is funded for both Canadian-born and foreign-born students.
- Targets were not set in the 2013-16 Business Plan for ESL students.
- The proportions of ESL students that achieved the acceptable standard and the standard of excellence in English Language Arts diploma examinations have increased over time.
- ESL results at the acceptable standard have improved over time for English Language Arts 30-2 and remained stable for English Language Arts 30-1.
- ESL results at the standard of excellence have improved over time for English Language Arts 30-1 and 30-2.

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

Subject	Standard	2009/10	2010/11	2011/12	2012/13 ¹	2013/14
English Language Arts 30-1	excellence	1	2	4	3	3
	acceptable	60	57	65	65	63
English Language Arts 30-2	excellence	2	2	3	3	5
	acceptable	64	68	72	73	71
Overall English Language Arts	excellence	1.7	1.7	3.3	3.3	3.9
	acceptable	62.2	61.7	68.4	68.4	67.3

¹Restated to include additional diploma examination rewrite results.

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 2009-10 to 2013-14 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.
- See Endnote A, page 32, for information on assessing results over time.
- See Endnote B, Diploma Examinations, pages 34-35.

Other Subjects (ESL Students)

Discussion:

- The proportion of ESL students achieving the acceptable standard has increased since 2009-10 for Biology 30, Physics 30 and Science 30 and remained stable for French Language Arts 30, Français 30, Social Studies 30-1, Social Studies 30-2 and Chemistry 30.
- The proportion of ESL students achieving the standard of excellence has increased since 2009-10 for Physics 30 and remained stable for Social Studies 30-1, Social Studies 30-2, Biology 30, Chemistry 30 and Science 30.

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

Subject	Standard	2009/10	2010/11	2011/12	2012/13	2013/14
French Language Arts 30-1	excellence	20	24	25	18	5
	acceptable	88	82	90	95	90
Français 30-1	excellence	4	20	24	10	0
	acceptable	93	83	97	100	92
Mathematics 30-1	excellence	–	–	–	37	28
	acceptable	–	–	–	78	71
Mathematics 30-2	excellence	–	–	–	4	13
	acceptable	–	–	–	56	64
Social Studies 30-1	excellence	10	8	13	9	9
	acceptable	75	72	79	74	73
Social Studies 30-2	excellence	11	11	13	11	11
	acceptable	75	74	73	70	73
Biology 30	excellence	27	28	28	33	27
	acceptable	76	75	76	79	81
Chemistry 30	excellence	35	29	30	35	33
	acceptable	77	73	71	78	78
Physics 30	excellence	23	29	33	32	31
	acceptable	70	71	79	76	77
Science 30	excellence	15	14	17	19	20
	acceptable	63	68	68	71	75

Source: Alberta Education

Notes:

- The percentages of students who achieved the acceptable standard include the percentages of students who achieved the standard of excellence.
- A dash (–) indicates that data are not available.
- 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 the new Chemistry 30 since 2010-11, Social Studies 30-2 since 2011-12, and Social Studies 30-1 since 2012-13.
- See Endnote A, page 32, for information on assessing results over time.
- See Endnote B, Diploma Examinations, pages 34-35.

2.b First Nations, Métis and Inuit (FNMI) Diploma Examination Results in Language Arts

Rationale:

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

Targets:

- The targets for self-identified FNMI students for overall Language Arts results at the acceptable standard and at the standard of excellence were 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 proportion of FNMI students achieving the acceptable standard has been stable over time.
- The proportion of FNMI students achieving the standard of excellence has increased over time, primarily due to higher results in English Language Arts 30-2.
- Results at the acceptable standard have been stable over time for English Language Arts 30-1 and 30-2 and French Language Arts 30-1. Note that no self-identified FNMI students wrote the Français 30-1 exam in 2013-14.
- Results at the standard of excellence have improved over time for English Language Arts 30-2 and remained stable for English Language Arts 30-1 and French Language Arts 30-1.

Percentages of Self-Identified FNMI Students Writing Language Arts Diploma Examinations who Achieved Standards

Subject	Standard	2009/10	2010/11	2011/12	2012/13 ¹	2013/14	Targets 2013/14
English Language Arts 30-1	excellence	4	1	5	4	5	
	acceptable	75	80	75	73	79	
English Language Arts 30-2	excellence	7	7	9	7	10	
	acceptable	88	87	89	87	88	
French Language Arts 30-1	excellence	0	0	10	0	8	
	acceptable	75	95	90	100	92	
Français 30-1	excellence	n/a	n/a	n/a	*	n/a	
	acceptable	n/a	n/a	n/a	*	n/a	
Overall Language Arts	excellence	5.7	4.4	7.0	5.7	8.1	8.6
	acceptable	82.6	84.2	83.1	81.6	84.1	85.5

¹Restated to include additional diploma examination rewrite results.

Source: Alberta Education

Notes

- The results reported are based solely 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 suppression has been applied because fewer than six self-identified FNMI students wrote the test, while n/a indicates no self-identified FNMI students wrote the test.
- 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 2009-10 to 2013-14 for English Language Arts 30-1 and 30-2.
- See Endnote A, page 32, for information on assessing results relative to targets, and results over time.
- See Endnote B, Diploma Examinations, page 34-35.

Supplementary Information: Other Subjects (FNMI Students)

Discussion:

- The proportion of students achieving the acceptable standard has increased since 2009-10 for Biology 30 and Chemistry 30 and remained stable for Social Studies 30-1, Social Studies 30-2, Physics 30 and Science 30.
- The proportion of students achieving the standard of excellence has increased since 2009-10 for Social Studies 30-2 and Physics 30 and has remained stable for Social Studies 30-1, Biology 30, Chemistry 30 and Science 30.

Percentages of Self-Identified FNMI Students Writing Diploma Examinations other than Language Arts that Achieved Standards

Subject	Standard	2009/10	2010/11	2011/12	2012/13 ¹	2013/14
Mathematics 30-1	excellence	–	–	–	18	15
	acceptable	–	–	–	66	59
Mathematics 30-2	excellence	–	–	–	7	10
	acceptable	–	–	–	63	64
Social Studies 30-1	excellence	7	3	6	5	5
	acceptable	72	71	75	73	73
Social Studies 30-2	excellence	7	10	6	7	9
	acceptable	77	78	75	72	75
Biology 30	excellence	13	12	11	14	15
	acceptable	64	71	67	72	76
Chemistry 30	excellence	12	10	12	13	16
	acceptable	64	56	59	59	71
Physics 30	excellence	11	15	11	16	20
	acceptable	61	66	61	71	69
Science 30	excellence	15	11	17	19	19
	acceptable	77	73	79	82	83

¹Restated to include additional diploma examination rewrite results.

Source: Alberta Education

Notes

- The percentages of students who achieved the acceptable standard include the percentages of students who achieved the standard of excellence.
- A dash (–) indicates data are not available.
- 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, Social Studies 30-2 since 2011-12, Social Studies 30-1 since 2012-13, and Physics 30 since 2013-14.
- See Endnote A, page 32, for information on assessing results over time.
- See Endnote B, Diploma Examinations, pages 34-35.

Endnotes for Performance Measures

Endnote A: Technical Notes

Assessing Results Over Time

Changes over time are assessed with a Chi-square statistical test for measures based on tests of student learning. 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 five per cent level. Discussion of results over time for test measures 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, on diploma exams and on administrative data, the Chi-square statistical test is used to determine whether the result is significantly different from the target. The magnitude of the difference required to establish significance between the result and the target for each test depends on the sample size, e.g., the number of students writing an exam, and the proportion, e.g., the percentage of students meeting standards.

Trend Lines

Although not appearing in the annual report, trend lines are an aid to interpreting the results for measures reported in the annual report. Trend lines augment data interpretation techniques already in use such as the calculation of Chi-square values, which are used 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.

Definition of Alberta Student

From 2008-09 to 2012-13, the definition of an Alberta Education student is an individual who is 19 years of age or younger on September 1 of the school year and is registered as of September 30th of the school year in an Alberta Education School operated by a public, separate, francophone, charter or accredited funded private school authority. The definition includes children registered in an ECS program in an Alberta Education School operated by a public, separate, francophone, charter or accredited funded private school authority or approved private ECS operator as of September 30th of the school year.

Starting with 2013-14, the definition of an Alberta student is an individual who is registered as of September 30th 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 the four former Alberta Vocational Colleges).

Results for FNMI Students

Calculating results for FNMI students is possible because school jurisdictions have been required to include a voluntary FNMI 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’ FNMI 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, so that, for example, Grade 6 students funded for ESL in 2013-14 are included in the Grade 6 ESL Provincial Achievement Test results.

Provincial Achievement Tests

Students in Grades 3, 6 and 9 write Provincial Achievement Tests annually in language arts and mathematics. For 2013-14, authority participation in the Grade 3 Provincial Achievement Tests was optional and the results are not comparable with prior years. Performance measure targets and historical results have been revised to remove Grade 3 Provincial Achievement Test results.

Grades 6 and 9 students also write tests in science and social studies. The achievement test 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 standards of acceptable and 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 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 point 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, or
- 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 present weighted averages based on the number of students enrolled in each Language Arts course. Test results and participation are recorded and aggregated in ministry systems. Provincial, school authority and school results are available at <http://www.education.alberta.ca/admin/testing.aspx>.

Diploma Examinations

Examinations are administered in all Diploma Examination courses in January, June and August each year. Examinations are administered in three courses in both November and April, for a total of six courses. 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 30-1, and English 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 include results for both English and French versions of the tests. The 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. For student marks in Diploma Examination courses, the diploma examination mark is worth 50 per cent of the final mark in a course and the school-awarded mark contributes the other 50 per cent.

Starting from the 2009-10 school year, the written response component has been removed from the mathematics Diploma Examinations. More machine-scored items, particularly numerical response items, have been added to these examinations to maintain the same quality and standards.

Diploma Examination results are recorded and aggregated in ministry systems. Provincial, school authority and school results reports are available at <http://www.education.alberta.ca/admin/testing.aspx>.