



Alberta Education

Processes to Manage the Student Class Size Initiative

February 2018

About This Audit

In the early 2000s, the Department of Education examined analysis that reducing student class sizes can have a positive impact on improving learning outcomes. In particular, the department reviewed the 2003 Alberta Commission on Learning (ACOL) report,¹ which concluded that smaller student class sizes in the lower grade levels can contribute significantly to improving academic results. The department decided in 2004 it would implement the Class Size Initiative to reduce average class size in each school jurisdiction. The department set targets for average class size, basing them on numbers set out in the ACOL report:

- K-3 classrooms: 17 students
- grade 4-6 classrooms: 23 students
- grade 7-9 classrooms: 25 students
- grade 10-12 classrooms: 27 students

The department provides funding to school jurisdictions through the Class Size Initiative to hire and retain teachers to reduce class sizes. School jurisdictions do not need to meet the guidelines in every classroom; instead, each jurisdiction is expected to meet the guidelines on average across its schools.

The Class Size Initiative is ongoing with a budget of over \$293 million for fiscal 2018.²

Audit Objective and Scope

Our audit objective was to examine the design and operating effectiveness of the Department of Education's processes to define the desired results of the Class Size Initiative, to develop an action plan to achieve those results, and to measure, monitor and report on the initiative.

We limited our audit scope to examining the department's processes related to the Class Size Initiative. We did not audit individual schools or school boards. We based our audit criteria on our Results Management Framework.³

Audit Responsibilities

Management of the Department of Education is responsible for processes to manage the Class Size Initiative. Our responsibility is to express an independent conclusion on whether the Department of Education has effective processes to define the desired results of the Class Size Initiative, to develop an action plan to achieve those results, and to measure, monitor and report on the initiative.

We conducted our audit in accordance with Canadian Standard on Assurance Engagements 3001 issued by the Auditing and Assurance Standards Board (Canada). The Office of the Auditor General applies Canadian Standard on Quality Control 1 and,

1 Alberta Commission on Learning, *Every Child Learns. Every Child Succeeds: Reports and Recommendations*, October 2003.

2 Education, 2017–18 Government Estimates, page 100.

3 *Report of the Auditor General of Alberta—October 2015*, page 176.

accordingly, maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. The Office complies with the independence and other ethical requirements of the Chartered Professional Accountants of Alberta Rules of Professional Conduct, which are founded on fundamental principles of integrity and due care, objectivity, professional competence, confidentiality and professional behaviour.

What We Examined

We examined the department's processes to define desired results, to develop an action plan, and to measure, monitor and report on the Class Size Initiative. To assess the design and operating effectiveness of these processes we:

- interviewed key staff and reviewed documents to understand goals, objectives and results
- examined the department's processes to collect and report on data
- examined the department's processes to provide oversight of the school jurisdictions and ensure accountability for results to Albertans

We conducted our field work from March to September 2017 and examined records and activities from September 2004 to July 2017.

Conclusion

Because of the significance of the findings described below, we conclude that the Department of Education did not, in all significant respects, have effective processes as of July 2017 to define the desired results of the Class Size Initiative, to develop an action plan to achieve those results, and to measure, monitor and report on the initiative. Based on our audit findings, it appears the department has, over time, converted Class Size Initiative funding to additional base instructional funding.

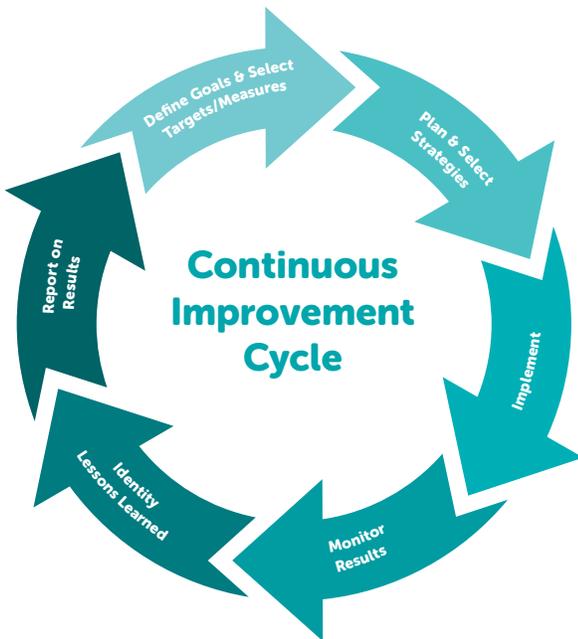
Why This Conclusion Matters to Albertans

The department has accepted that having small class sizes is most beneficial to students in their early years. The department has spent billions of dollars to reduce class sizes, but it does not know why school jurisdictions have been unable to achieve the target for the K-3 grade group over the past 13 years. The department should be reporting to Albertan families why it has not achieved its desired result and what it plans to do differently in the future.

Findings and Recommendations

Context

An initiative is an organization's way of setting a priority to improve results in a particular area. To be successful, an initiative should have effective processes for continuous improvement. Management should:



- identify desired results and strategies to achieve the results
- create relevant performance measures and targets for internal and external reporting
- analyze the current results for the performance measures against the targets, as well as analyzing trends in relation to prior years
- identify, develop and implement ways to improve
- report results in relation to desired outcomes, including lessons learned and plans for improvement

Through the Class Size Initiative the department expected all school jurisdictions to meet the department's average class size targets for all grade groups within a three-year period. School jurisdictions' use of initiative funds was to be restricted to hiring and retaining teachers in order to reduce class size averages. This restriction made the initiative different from base instructional funding, which is funding that school jurisdictions can spend at their discretion on teachers' and support staff's salaries and on classroom materials.

Criteria: the standards of performance and control

The Department of Education should have processes to:

- define a desired result for the Class Size Initiative and develop an action plan to achieve it
- regularly measure, monitor and report on the Class Size Initiative

Our audit findings

Key Findings

- Despite the \$2.7 billion in funding spent on the initiative, the number of school jurisdictions that met the department's class size targets in 2017 is lower than in 2004.
- The department's use of average class sizes as its target has an inherent limitation as it obscures the actual number of classes that have not met the ACOL suggested levels.
- The department:
 - does not have an action plan to achieve the desired results of the initiative since the end of the 2006–2007 school year
 - stopped requiring school jurisdictions, from the 2008–2009 school year onwards, to report on how they were using initiative funding
 - has not analyzed why school jurisdictions have not achieved the department's desired result for the K-3 grade group for the last 10 years

Overview

Our audit findings over the chronology of the initiative show the department does not have effective processes to achieve the desired result, to develop an action plan, and to measure, monitor and report on the Class Size Initiative.

Over the 13-year history of the initiative, the lack of planning, ongoing monitoring and reporting resulted in the targeted funding being treated as additional base instructional funding, effectively nullifying the initiative.

2004—Start of the Class Size Initiative

The department's desired result for the Class Size Initiative was to lower class size averages to levels recommended by the ACOL report, by providing funding to school jurisdictions to hire additional teachers. The department wanted to achieve these class size targets by the end of the 2006–2007 school year. At the start of the initiative, school jurisdictions were already achieving the required average class size targets for the grade groups 7-9 (69 per cent) and 10-12 (88 per cent).

The department supported the theory from various studies that, generally, reducing class sizes will have a positive impact on improving learning outcomes particularly in the early years. The department did not identify a measure that would clearly demonstrate reducing class sizes improved learning outcomes, as the improvement of learning outcomes is dependent on a number of factors. As a result, the department's desired outcome of the initiative was limited to achieving the recommended class size levels, assuming that would positively impact learning outcomes in Alberta schools.

The department's plan for the initiative estimated that school jurisdictions would need to hire 2,265 teachers at a cost growing to \$149 million annually to meet the ACOL guidelines by the end of the 2006–2007 school year. In determining funding, the department incorporated class size averages into the initiative funding model. Funding for each school jurisdiction was calculated to be the higher of:

- a dollar amount calculated based on the jurisdiction's 2003–2004 class size average, or
- a combination of per-student funding and the above dollar amount

The department required school jurisdictions to provide a three-year outline on how they would achieve the department's class size targets and also to annually report on average

class sizes by grade group. As the initiative was designed to reach the department's targets in three years through hiring additional teachers, it is important to note that maintaining those targets would require funding in perpetuity to maintain the smaller class sizes. Thus, the funding required by school jurisdictions would need to extend beyond the initiative's original three-year period.

We found the department's plan for the initiative was not effective, as it did not include:

- an action plan to be implemented if the desired result was not met within the three-year period
- how it would retain teachers hired through the initiative to maintain class size averages in perpetuity

At the end of the 2003–2004 school year, 6.9 per cent of school jurisdictions met the department's target for average class sizes in the K-3 grade group. By the end of the 2006–2007 school year, 18.8 per cent of school jurisdictions had achieved the K-3 target (see Appendix A). During the three years, school jurisdictions were able to maintain class size averages at or below the targets for the other grade groups.

At the end of the third year, the department required explanations from school jurisdictions that did not meet its targets. Analysis of how school jurisdictions used the funds would have assisted the department in considering adjustments to where funding was required and how much, and might have identified where positive improvements were made at jurisdictions that could be seen as best practices for other jurisdictions. We found the department was unable to provide any analysis it performed on the information provided by the school jurisdictions to identify, develop and implement ways to improve.

2007—Continuation of the Class Size Initiative

With the desired results not achieved by the end of the original three-year period, the department decided to continue with the Class Size Initiative. We would have expected that the department, having decided to continue, would analyze how to achieve the desired result—for example, by:

- considering whether the original class size targets are achievable
- incorporating lessons learned over the first three years
- establishing new timelines
- performing a cost-benefit analysis
- identifying how to retain teachers to maintain class size averages
- assessing the effectiveness of reporting requirements

However, department management was unable to provide us evidence it completed this analysis to support the decision to continue the initiative.

School jurisdictions had informed department management that the initiative's reporting requirements were too burdensome as they required jurisdictions to track teachers hired through the initiative and provide reasons for not achieving the targets. In response, department management decided to no longer require school jurisdictions to report on anything other than publicly posting annual grade-group class size averages.

The department's internal reporting consists of management providing the minister with annual briefing notes containing information on class sizes but no assessment on continuing or improving the initiative. We would have expected the department to have effective monitoring processes that analyze current results against targets and identify specific trends. Effective processes would also identify what works and where improvements can be made.

2011—Change in Class Size Initiative funding model

By the end of the 2010–2011 school year, only 24.3 per cent of school jurisdictions had achieved the average class size target for the K-3 grade group (see Appendix A). Similar to the first three years of the initiative, school jurisdictions were able to maintain the average class size targets for the three other grade groups during this time.

At the end of the 2010–2011 school year, department management re-examined how school jurisdictions received funding under the initiative. School jurisdictions felt the department’s funding model penalized jurisdictions that had made a conscious effort to reduce class sizes, as jurisdictions with lower class size averages received less funding.

In response, the department changed the Class Size Initiative funding formula from one that incorporated class size averages to a simple per-student allocation, as it believed this would be more equitable for jurisdictions. The department also changed its funding to focus solely on the grade groups K-3 and 4-6 rather than all grade groups. Funding was further refined the following year to focus strictly on the K-3 grade group.

As a result of the funding formula change, the department now provides funding to school jurisdictions based on the number of students (in K-3) rather than which specific jurisdictions need assistance to reduce student class size levels. If two schools in a particular jurisdiction had the same number of K-3 students, they would be allocated the same amount of initiative funding from the department regardless of their class size averages.

For example:

	School A	School B
Number of K-3 students	240	240
Number of K-3 classes	15	10
Class size average per K-3 class	16	24
Department’s K-3 target	17	17
Meeting K-3 target?	YES	NO
Funding provided to jurisdiction*	\$46,792	\$46,792

*Based on the *Funding Manual for School Authorities for the 2016–2017 School Year*.

By no longer incorporating current class size averages as a determining factor in the initiative funding calculation, it is unclear how the department intends school jurisdictions to achieve its class size targets. With the initiative funding now based solely on number of students, it has evolved to mirror the department’s base instructional funding.

In the year following the change in how the department determined eligible funding, the number of school jurisdictions achieving the K-3 target decreased from 24.3 per cent to 14.3 per cent (see Appendix A).

Current Class Size Initiative

The department has provided over \$2.7 billion to school jurisdictions since 2004 to achieve and maintain the average class size targets. The K-3 grade group on average has never achieved the department’s desired result of 17 students in a classroom. Only 7.2 per cent of school jurisdictions have achieved the department’s target in the K-3

grade group, a slight decrease from the percentage at the start of the initiative. The provincial averages for the 4-6, 7-9 and 10-12 grade groups have met the department's jurisdictional targets throughout the 13 years of the initiative. While this is positive, the number of school jurisdictions that have achieved the grade group targets has decreased since year one of the initiative (see Appendix A). The department's use of average class sizes as its target has an inherent limitation as it obscures the actual number of classes that have not met the ACOL suggested levels. For example, it is possible for a school jurisdiction to meet the department's average target while more than half of the classes in that jurisdiction do not meet the class size target.

We also analyzed the provincial class size averages and noted that class size averages in all grade groups have increased since year one (see Appendix B). We have been unable to find in the department's annual report or other public reporting the department's analysis of these trends and resulting changes to the Class Size Initiative. Because of the department's lack of public reporting throughout the initiative, Albertan families have remained uninformed about how effective that funding has been in achieving the desired class size targets.

Department management told us that "the government remains committed to the Class Size Initiative, recognizing that small class sizes are most beneficial to students in their early years." However, we found no evidence that the department has incorporated key components of the continuous improvement cycle, such as:

- identifying strategies to achieve results
- analyzing current results and trends in relation to prior years
- identifying, developing and implementing ways to improve

Since 2004, changes to how the department funds, monitors and reports on the initiative have resulted in funding restricted for improving class size averages becoming another layer of base instructional funding. Albertans may feel misled, because the ministry budget gives the impression that the minister and department continue to focus on achieving K-3 class size averages through specific targeted funding.

RECOMMENDATION:

Develop an action plan and improve monitoring and reporting processes

If the Department of Education continues the Class Size Initiative, the department should develop an action plan and improve processes to regularly monitor and report on the initiative.

Consequences of not taking action

The department will continue to invest money without knowing if it is effectively achieving the desired results of the initiative.

Appendix A:

Percentage of jurisdictions meeting department's targets

Percentage of Jurisdictions Meeting the Department's Targets				
School year	Grade groups			
	K-3	4-6	7-9	10-12
2004–2005	8.8%	76.1%	95.7%	100.0%
2005–2006	15.9%	83.1%	100.0%	100.0%
2006–2007	18.8%	93.0%	98.6%	100.0%
2007–2008	20.3%	93.0%	97.1%	100.0%
2008–2009	24.3%	91.7%	95.7%	100.0%
2009–2010	21.4%	81.9%	95.8%	100.0%
2010–2011	24.3%	76.4%	95.8%	100.0%
2011–2012	14.3%	68.1%	93.0%	98.4%
2012–2013	17.1%	75.0%	93.0%	100.0%
2013–2014	14.5%	73.2%	91.4%	96.8%
2014–2015	7.2%	70.4%	92.9%	96.8%
2015–2016	7.2%	69.0%	91.4%	96.8%
2016–2017	7.2%	71.8%	94.3%	98.4%

Based on data provided by the Department of Education.

A jurisdiction will meet the target if the “average” class size for the jurisdiction as a whole is at or below the target level.

Meeting the target does not necessarily mean all the individual classes within the jurisdiction have met the class size target level.

Appendix B:

Provincial class size averages

Provincial Class Size Averages				
	Grade Groups			
	K-3	4-6	7-9	10-12
Department Target	17.0	23.0	25.0	27.0
School Year				
2004–2005	19.7	22.3	22.7	23.0
2005–2006	19.4	22.0	22.7	23.0
2006–2007	18.6	21.4	22.6	23.1
2007–2008	18.4	21.3	22.5	22.7
2008–2009	18.2	21.2	22.4	22.7
2009–2010	18.5	21.5	22.5	22.8
2010–2011	18.8	21.7	22.5	22.3
2011–2012	19.4	22.3	23.1	22.5
2012–2013	19.4	21.9	22.8	21.8
2013–2014	19.9	22.4	23.2	23.2
2014–2015	20.2	22.7	23.4	23.3
2015–2016	20.3	22.6	23.4	23.0
2016–2017	20.4	22.7	23.6	23.4

Class size average data provided by the Department of Education.

Calculated as the total number of students in all classes divided by the total number of classes for each grade group. As a result, the number of students in an individual class may be significantly below or above the “average” (i.e., one class of 10 students and one class of 30 students would result in an “average” of 20 students).