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## **Implementing Primary Class Size Caps in Ontario**

**Presentation by: Nancy Naylor**  
Assistant Deputy Minister  
Business and Finance Division  
Ontario Ministry of Education

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## **Implementing Primary Class Size Caps in Ontario**

### **Introduction**

Ontario is entering the fourth year of a multi-year initiative to cap primary class sizes at 20. This represents one of the few large scale class size reduction initiatives in North America, and perhaps the only initiative of this type that has been introduced within a broad context of educational reforms.

The implementation of these class size caps, in conjunction with a set of broad and ambitious educational reforms, has been accompanied by an increase in elementary student test scores of ten percentage points.

This paper will outline the approach taken to implement this class size capping initiative, the technical issues encountered and addressed, the associated educational reforms in Ontario as well as the broader Ontario context and history.

### **Background**

Ontario is a large Canadian educational jurisdiction of close to two million students and almost 5,000 schools. Education is provided by 72 school boards, organized into four school board systems: English language public boards; English language Catholic boards; French language public boards and French language Catholic boards. All boards offer junior and senior kindergarten and all but two northern boards offer a full range of classes to grade 12.

Education funding is determined by the provincial government through a set of allocation formulas, which determine a school board's overall funding. Education property tax rates are set by the provincial government but revenue is raised locally and paid directly to school boards. Provincial grants make up the remainder of revenue, to a total of the funding a board is eligible for under the provincial funding formula. In essence, the system is 100% funded by the provincial government.

Ontario's education sector has undergone significant reform over the past decade. Beginning in 1996, the then Conservative government began a process which led to the introduction of legislation to amalgamate the existing 129 English language boards into 60 new English boards, and to create 12 new French language boards to better serve Ontario's Francophone community.

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In addition, the government suspended school boards' taxing powers and introduced a new funding model which was independent of individual school board assessment wealth. A new common curriculum was introduced, as was standardized testing of student achievement.

Although the reforms introduced in this period represented significant modernization of the Ontario educational system, it was also a period characterized by labour unrest and a significant number of strikes and labour actions. Teacher morale was low and student achievement was relatively stable relative to the baseline scores recorded at the introduction of standardized testing.

In 2003, a Liberal government was elected, in large part on an education platform which included investment in education, a focus on student achievement and a cap on primary class sizes of 20.

Early in its mandate, the provincial government articulated three objectives:

- To raise the number of elementary students achieving at a high standard on provincial standardized tests in reading, writing and math (defined as Level 3 of a 4 point scale) to 75%
- To raise the high school graduation rate to 85%
- To cap primary class sizes at 20

An early achievement of this government was to convene a set of framework discussions, which led to four-year teacher collective agreements in all 72 districts using a common framework and a period of labour peace and stability. A key element of these agreements was an increase in teacher preparation time. This achievement was instrumental in improving teacher and sector morale and in eliminating a key distractor from a focus on student achievement.

The government introduced an extraordinary four year investment plan, which has increased education funding by 24% to \$18.3 B in 2007-08, over a period of time when enrolment is declining. Funding per pupil in 2007-08 will be over \$9,400 (\$CDN; operating and capital). A number of significant funding formula reforms were also introduced to increase the responsiveness of funding to individual student, school and board circumstances.

The government appointed a Chief Student Achievement Officer to establish a Literacy and Numeracy Secretariat (LNS) with a mandate to recruit talented educators and work with individual schools and boards on teacher training and school improvement planning. Among a range of initiatives, the LNS has introduced the Ontario Focused Intervention Partnership (OFIP) to identify low performing or "cruising" schools and assign dedicated resources to turn these schools around. This initiative has had an excellent record of success with schools to date.

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The province also initiated a broad set of secondary panel reforms to increase the high school graduation rate. The government introduced “Learning to 18” legislation to raise the high school leaving age from 16 to 18. A number of options have been introduced for high school students to complete their degree, including a high skills major and dual credits with the college system.

A significant amount of project based funding was made available to support “lighthouse” projects at both the elementary and secondary levels and encourage a broad response from the school board sector in support of the province’s educational goals.

In both elementary and secondary panels, a major initiative to support Francophone education, the Politique d’Aménagement Linguistique, complemented all activities and ensured equitable implementation in both English and French language school boards.

A significant focus was also placed on leadership, including training and development for school board directors (superintendents) and supervisory officers (assistant superintendents), as well as principals.

It was within this broad and ambitious context that the signature initiative of lowering and capping primary class size was undertaken.

### **History of Class Size Controls in Ontario**

In the 1990’s, class sizes were a key factor in teacher collective bargaining in Ontario and class size averages were typically incorporated into agreements reached between teacher federations and school boards. However, class sizes had increased over time, apparently as an offset for higher teacher salaries.

The previous Conservative government introduced, as part of its legislative reforms, caps on class size averages. Initially, the regulated averages were 25 at the elementary level and 22 at the secondary level. Elementary class sizes were subsequently revised, effectively, to 24 for primary classes (JK-Grade 3) and 25 for junior grades (Grades 4-8).

With the election of the current Liberal government, this policy has shifted, for the primary grades (Junior Kindergarten, Senior Kindergarten and Grades 1 to 3) from class size averages to class size caps.

Although Ontario school boards have had considerable experience implementing and maintaining class size averages as a policy standard, the shift to a policy of class size caps represented a considerably more complex undertaking. Forecasting the cost of such a policy required much more data and modelling; implementing this policy required new funding approaches and a significant

review of school board staffing processes; and creating a reporting and accountability framework has also required new measures. This policy has also represented a significant capital challenge as well as an opportunity for capital renewal for many of Ontario's elementary schools.

### **Forecasting Cost and Progress**

Ontario is fortunate in having established a valuable infrastructure of datasets. This allowed for detailed modelling of the operating and capital cost and anticipated progress, year by year.

Ministry of Education analysts developed a forecasting model using detailed class by class enrolment data in each elementary school to forecast the cost of the overall initiative. This model was also used to track and project progress toward the primary class size cap based on varying degrees of optimization in organizing classes. This analysis helped the Ministry provide feedback and clarify implementation rules with school boards.

For example, this model was used to estimate teachers needed, using a "high optimization" routine which assumed that all primary students, regardless of grade groupings, could be grouped into classes of 20 or fewer. This model, which was clearly not implementable, was used largely as a base case and to illustrate the degree to which the variations in student distribution in the "real world" would amplify the need for teachers.

A second routine used "moderate optimization" to estimate the number of teachers needed. This model, which was highly assumption sensitive with respect to combined grades and other factors, typically produced higher ranges of teachers needed. Assuming moderate optimization, that is, moderate effort to organize classes which respected the class size cap, increased the need for teachers by approximately 10-20% over a highly optimized scenario. The reality of small schools, limited students per grade and limited opportunities to combine grades all contributed to the conclusion that moderate optimization was a realistic assumption and that funding for teachers needed to recognize this reality.

This modelling was extremely data intensive and assumption sensitive, using algorithms to predict the class groupings a principal would choose when presented with a particular enrolment pattern. Specifically, class groupings of junior and senior kindergarten students and grade 1 to 3 students were modelled separately, to reflect the fact that kindergarten classes are typically half day programs and class groupings across kindergarten and grade level students would be rare.

In practice, forecasting of cost has been very accurate, but the forecasting of progress has been less accurate—at least by the standards of a provincial ministry which traditionally has been very accurate in modelling investments and outcomes. In the first two years (2004-05 and 2005-06), progress on class size caps, as measured by the percentage of primary classes at 20 or fewer students, was lower and slower than the ministry had anticipated. This was attributable to the fact that few school boards changed staffing practices in the first two years of the initiative and in some cases, funding for primary teachers “drifted” into staffing allocations for other grades until more defined accountability mechanisms were introduced. In the third year of implementation, considerable progress was achieved and for the last year of 2007-08, early board plans suggest that results will outpace what the ministry had projected as possible.

This pattern of progress suggests that “will and skill” are being brought to this challenge after a number of years of increasingly high profile. This pattern also reflects the degree of operational change required to fully implement this class size policy and the time it appears to have taken to bring focus to primary class sizes and the planning and staffing changes required to implement the primary class size cap.

### **Designing a Funding Approach for Lowering Primary Class Size**

Lowering class size requires funding for additional teachers, additional classrooms, and the operations costs of the additional classroom space. Ontario’s funding approach for this initiative was facilitated by the existing, detailed allocation formulas in place for both operating and capital funding, as well as the extensive data collections available to policymakers in Ontario, which served as valuable infrastructure.

### **Operating Funding Approach**

Ontario’s funding model reflects existing standards for class size averages very explicitly through its largest grant, the Student Foundation Grant. This grant provides transparent funding to support class sizes through an allocation per student which reflects a benchmark teacher salary, divided by the appropriate class size. As a simplified example, a benchmark teacher’s salary of \$60,000, divided by 25 students, would result in a per student allocation of \$2,400. (For further information on Ontario’s funding model, see references).

Although an option existed to use this established Student Foundation Grant formula to introduce additional funding for new teachers, a decision was made to create a new grant, to give more visibility to the additional funding which would be provided to school boards. The Primary Class Size Reduction Amount was introduced in 2004-05, with an allocation of \$166 for each primary student. This

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funding, totalling \$90 M, supported 1,200 new teachers for the primary grades. (As of 2003-04, Ontario had an estimated 25,300 teachers serving as primary classroom teachers, excluding program-oriented or special education teachers).

In each following year, the Primary Class Size Reduction Amount has been increased to support 1,200 new teachers. As these teachers are funded effectively outside the mechanics of the remaining funding model, annual amounts have been enriched to ensure that all teacher funded under this model are compensated for increased salary and workload benchmarks which form part of the current four-year labour framework.

Effectively, this funding approach supplemented the funding for teachers provided through the Student Foundation Grant and gradually lowered the class size supported by funding for teachers.

In the first year of allocations, boards were permitted to use up to 10% of their allocation for classroom set-up costs. Boards had argued that they would need funding to re-open classrooms or portables and buy furniture and resources. The evidence from the first year however, was that these costs were minimal and in the following years, all funding was allocated for teachers.

As of 2007-08, there will be funding for an incremental 4,800 teachers in the Ontario primary grades, at a cost of \$386 M.

### **Capital Funding Approach**

Ontario has a well developed inventory of school facilities across the province, including capacity (for pupil places) and enrolment by grade. This database supports a capital funding approach which measures the gap between the pupil places that can reasonably be accommodated within a school or school board and enrolment. Where there is an enrolment pressure, funding is provided based on funding benchmarks for the cost of constructing a pupil place (which reflect standards for size of a pupil place and the cost of construction, as well as financing construction costs over a defined term)

Using this database, an assessment of pupil places needed, by elementary school, was developed. This analysis was helped a great deal by the fact that boards were submitting long term capital plans at this time, which included long-term enrolment projections by grade and by school.

These data assets allowed the province to develop a preliminary assessment of how many additional pupil places, and effectively how many additional classrooms, would be required. Approximately 80% of the anticipated capital budget for the PCS initiative was allocated on this formulaic basis.

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This preliminary allocation was supplemented by a detailed review process with all school boards, on a school by school basis. Over the course of almost a year, senior ministry analysts met with school board planners to review needs on a school by school basis. Geographic information system (GIS) modelling tools were developed to highlight the range of facilities and enrolment patterns in planning areas, as well as the availability of re-locatable classrooms. This review process allowed for the preliminary allocation of capital funding to be adjusted to recognize a range of circumstances, including the need or preference of local schools to retain specialized teaching spaces for art or music, schools where additions or portables were not possible due to site restrictions, schools where existing portables could be converted to permanent additions and schools where enrolment projections suggested that portables or re-locatable classrooms would be needed for transitional purposes only. Although this review did assess where space might be available in nearby schools, or where grades or programs could be relocated, these program changes were minimized to avoid disruption to existing school communities.

Although this detailed capital review was both time and labour intensive, it had two key benefits. It served as an incentive, and an assurance, that school by school capital planning was being undertaken by school boards, and that trustees were involved and supportive of the plans being put in place. It also saved money, as initial capital requests were approximately 20% higher than the final allocations based on detailed school by school reviews and reasonable assumptions.

During this process, 2005-06 enrolment was used as a baseline to assess where additional classrooms were needed. Enrolment pressures at individual schools were “rounded up” to classroom units of 23 pupils and typically added in groups of 2, 4 and 6 to represent the way either portables or additions tend to be planned for schools.

Once the need for new classrooms was quantified, a funding approach was needed that would support a wide variety of capital solutions. It was anticipated that most of the capital projects needed would be additions to existing schools or portables and re-locatable classrooms where enrolment pressures were short-term in nature. However, the review process revealed that boards planned to address their capital needs in a variety of ways, including:

- Buying or leasing portables
- Relocating portables from other sites
- Renovating to reclaim classroom space which had been leased or used for other purposes
- Augmenting the size of new schools planned or under construction
- In growth areas, “offering up” space in recently constructed schools and moving boundaries to absorb new enrolment in new schools built at an accelerated pace.

The capital funding approach needed to be flexible enough to address all of these options. An early policy decision was made to support the need for new primary class size capital at permanent construction benchmarks. This was helpful in terms of minimizing the pressure to define in detail where permanent versus re-locatable capacity would be deployed. However, in many cases, boards have chosen less expensive options than permanent construction, in light of the transitional nature of the need to be addressed. Primary class size capital funding is enveloped for this purpose, so it is projected that in many boards, the capital allocation may not be fully required.

In total, \$716 M was allocated to school boards for capital projects to support primary class size reduction. An estimated 1,900 new classrooms will be supported with this funding.

### **School Operations and Renewal Funding**

Ontario funds school operations costs, which include cleaning, heating, lighting and insuring schools and school grounds, through a per pupil allocation. A school renewal allocation, to address major maintenance and renewal costs, is provided on the same basis. Both allocations are supplemented by a top-up allocation to address situations where enrolment is below the capacity of the school, to recognize the full costs of operating and maintaining schools.

These allocations incorporate benchmarks for “area per pupil place”. A benchmark of 100 square feet per elementary pupil place had been recognized; however, given the change to fewer students in each primary classroom, this benchmark was increased to 104.4 square feet per pupil place.

This benchmark increase, when combined with the funding per square foot benchmark, increased School Operations funding by approximately \$35 M, or 2.1% and School Renewal funding by \$5.4 M or 1.6%.

### **Measurement and Accountability Approach**

By the second year of implementation, it became apparent that there was a need to develop a reporting approach to measure the progress made by boards in reducing primary class sizes. Although class size reporting was established within the normal business cycle reporting by school boards, results were typically not available for publication until after the school year. In addition, the existing class size reporting approach was developed to assess compliance with standards for class size averages, and a new approach was needed to assess progress toward a standard based on class size caps.

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To this end, a web-based reporting tool was developed to capture the class size of all classes in all elementary schools in the province. This “class size tracker” was released for the first time in the 2005-06 school year, with three years of data (2003-04 as a baseline year, and 2004-05 and 2005-06 as the first two years of the initiative).

This reporting tool allowed school boards the choice of allowing principals or school secretaries to complete the class sizes for their school, or for this data to be entered centrally. In either case, the board could review the data before it was formally submitted, electronically, to the province.

The board could view and summarize the data in a format essentially similar to the format that would be made public, which allowed board staff and trustees to view the reporting tool in advance of their communities.

Once received, the ministry reviewed the submitted data for completeness and integrity and released this data on its public website. Parents were able to view their child’s class size by school, as well as to see aggregate statistics for their school board and the province.

This transparency enhanced the profile of the initiative with the public and allowed boards to benchmark their progress towards the class size cap with other boards.

### Size of Primary Grades

In 2003-04, when the initiative was announced and early planning was underway, Ontario had 551,0000 primary students. (Note that Ontario expresses enrolment in terms of Average Daily Enrolment or ADE, representing full-time students. Where kindergarten students are in half-day programs, they count as 0.5). Since that year, declining enrolment has reduced this cohort by 30,000 students as follows:

	<b>JK-Gr3 ADE (000s)</b>
2003-04	<b>551</b>
2004-05	<b>537</b>
2005-06	<b>530</b>
2006-07	<b>521</b>
2006-07 vs 2003-04	- <b>30</b>

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Progress toward the goal of a primary class size cap of 20, with up to 1 class in 10 permitted to have up to 23 students, has been as follows:

Provincial Total Percentage of Primary (JK-Grade 3) Classes by Class Size							
	20 or fewer	21	22	23	Total 23 or fewer *	24	25 or more
2003-2004	31%	10%	11%	12%	64%	11%	25%
2004-2005	40%	11%	12%	11%	74%	9%	17%
2005-2006	48%	12%	11%	10%	81%	7%	12%
2006-2007	65%	12%	10%	7%	93%	3%	3%

As can be seen in this data, the percentage of primary classes with 20 or fewer students has increased significantly. The size of classes that exceed 20 have also declined significantly. Classes above 25 have almost disappeared and 93% of classes have below 23 students. This progress suggests that boards and schools have addressed, appropriately, their largest class sizes through this initiative and are poised to reach the objective of 90% of classes below 20 in the final year of implementation in 2007-08.

This pattern of change also suggests that students and teachers have experienced the benefits of lower class size throughout the four years of implementation as boards appear to have deployed their additional teachers in a manner that would yield the most benefits.

### Student results

Ontario has an agency, the Education Quality and Accountability Office (EQAO) which conducts standardized testing of, among other outcomes, Grade 3 and Grade 6 student levels of achievement in reading, writing and math.

The last four years have seen a remarkable improvement in student achievement outcomes as measured through these assessments. Elementary student test scores have improved by ten percentage points, from 54% in 2002-03 to 64% in 2005-06. Improvements have been most pronounced at the Grade 3 level.

Although the primary class size initiative cannot be directly credited with assisting to achieve these outcomes, it is felt that this initiative, together with a broad set of reforms, including a focus on literacy and numeracy, focused teacher training, leadership development at the principal and superintendent level and a period of labour stability, have contributed to these very positive improvements.

## **Key policy and implementation issues**

### ***Timeline***

The provincial government set a four year timeline for implementation of the primary class size caps and began investment in 2004-05. This pace worked well for school boards as it allowed for planning time, while ensuring that primary class sizes would visibly drop over time.

This timeline for implementation also ensured that school boards did not experience any teacher shortages or face difficulties in recruiting qualified teachers. The background of declining enrolment also allowed boards to retain teachers as well as hire new teachers for this initiative.

### ***Flexibility***

An early implementation issue identified by school boards was the need for flexibility in implementing the class size cap. School boards were concerned that a “hard cap” of 20 students for every primary class would require them to relocate many students or to add many very small classes. In response to school board concerns, the province introduced flexibility into the policy by permitting slightly higher class sizes in one class out of ten. When fully implemented, boards will be required to meet the primary class size cap in 9 classes out of 10; in 1 class out of 10, school boards will be permitted to have up to 23 students. This flexibility is intended to recognize fluctuations in enrolment, and to minimize class reorganizations and transportation requirements.

### ***Combined grades***

Ontario’s elementary schools have a history of using combined grade classes as a staffing and academic strategy. This approach reflects the practical reality of many small elementary schools, as well as a deliberate strategy to ensure an appropriate grouping of students and teachers.

The percentage of combined grade classes in 2003-04, in primary grades, was 31%; this percentage has remained stable in each year between 2003-04 and 2006-07. Neither has there been any significant change in types of combined grades (eg. JK/SK, double or triple grades or combined grade 3 and 4 classes).

Policy direction to the system has noted that combined grade classes have been a factor in school staffing and this is expected to continue as a staffing strategy. The Ministry of Education has provided supports to teachers of combined grades, both as part of the primary class size implementation and as part of overall

curriculum leadership. Information has also been provided to parents to address and defuse concerns about combined grades.

### ***Number of students per grade in combined grades***

A key variable in designing school staffing strategies is to set a policy parameter on how many students in one grade are needed to establish a combined grade. In other words, can or should a school add one or two students of a grade to a class serving another grade or is there a minimum number of students per grade?

Although this has been a discussion issue, Ontario has not established provincial policy on this issue; however where school boards have such a policy, principals are usually directed to ensure that six to eight children in each grade are needed to establish a combined grade.

### ***Combined classes and kindergarten programs***

In Ontario, junior kindergarten and senior kindergarten are funded as half day programs, although some school boards offer a full day option for enrichment purposes. For modelling and funding purposes, the only forms of combined grades assumed were JK and SK combined classes, with combined classes possible at and amongst grade 1 to 4 classes. This assumption did increase the projected cost of the initiative; however it also reflected the reality that very few if any combined classes could be assumed between kindergarten and older grades as this class organization would not be considered practical in any but the smallest schools in Ontario.

### ***Measuring Grade 3 and 4 combined classes***

Measuring combined grades covering Grades 3 and 4 became a surprisingly sensitive issue. Although this type of classroom is not a common staffing choice, as many principals and teachers consider there to be a significant difference in curriculum and expectations between Grade 3 (primary division) and Grade 4 (junior division), these classes are created where required.

However, given that grade 3 students were addressed by the primary class size cap and grade 4 students were not, an approach to measuring class size in these classrooms was required. As a board's overall level of compliance was sensitive to the assumed approach for these classrooms, it was a priority to ensure that the way these classrooms were "counted" had a neutral effect on a board's compliance with the primary class size cap in order to avoid creating an incentive

to create these types of classes. Grade 4-8 classes are effectively held to a class size average of 25.

The approach selected was to allow these classes to be excluded from the primary class size count, but to cap these classes at 23 and to require boards to report these classes. This ensure that grade 3 pupils in these classes had at least the protection of the primary class size cap, and that boards had to make an effort to minimize the size of grade 3 and 4 combined classes.

### ***Treatment of French immersion and other congregated programs***

Most boards in Ontario offer French immersion as well as other congregated or magnet programs, such as arts schools, although most are offered at the secondary or higher grade levels.

Some boards requested special consideration for French immersion programs in particular, as these programs typically take in larger numbers of students in the early grades to anticipate attrition as students progress. These programs also present additional capital challenges as they are often located with an English school and situated to serve a broader catchment area. For these reasons, these programs may be in schools that present additional capital challenges.

Although consideration was given to these circumstances, the primary class size cap is applicable to all primary classrooms. However some additional flexibility has been offered for 2007-08 to allow school boards slightly more time to implement the cap for these programs.

### ***Treatment of special education classes***

In Ontario, many boards deliver some special education programs using small congregated classes. Although primary students enrolled in these programs generate class size funding, as do all students, these classes and students are reported but excluded from the measurement of progress on primary class size. This exclusion ensures that there is no incentive to create small special education classes or distortion in the comparability of results between boards which deliver special education programs in other formats.

### ***Teacher Preparation Time***

Elementary teacher preparation time increased according to the terms of the four-year labour framework governing this period, and is increasing toward a 2008-09 standard of 200 minutes per week. This has increased the teacher

staffing per class that had to be taken into account in modelling implementation costs.

### ***Count date***

Another sensitive issue was count date. As noted above, an approach had to be established to measure and report class sizes. What was also needed was to select a date on which this count would be taken.

Ontario uses an October 31 count date for official data and funding purposes. Enrolment counts and other data are collected on this date, with a March 31 date for some secondary purposes. In the first two years of the primary class size initiative, data collected on October 31 was used for reporting purposes.

However, as boards moved farther into implementation, it became clear that October 31 was too late in the year for a PCS count date. In fairness to school boards, they had to plan for a primary class size cap of 20, and had to maintain this through the early weeks of September as enrolment fluctuated and students moved between schools. Many boards had collective agreement limits that restricted their ability to reassign teachers after a certain date and it was clearly impractical to expect schools to continually reorganize classes.

As a practical solution, boards were permitted to name their own “count date” in September that reflected the board’s cut-off for school and staff reorganizations. Typically this is in the second or third week of September. Boards may submit their data to the class size tracker as of that date and may admit or transfer students beyond that time without being required to maintain an absolute cap on primary class size.

### ***Board staffing practices***

One issue which the primary class size initiative surfaced was the significant variation in school board staffing processes. Given that teachers are a school board’s most expensive resource, most boards have a process for allocating these to schools, either through a school based staffing formula or through allocation to a superintendent, who then allocates these to his or her family of schools.

As boards turned their mind to the complexity of implementing class size caps (rather than class size averages), most boards implemented a much more rigorous allocation and review process to ensure appropriate results.

In the early years of this initiative, the province introduced tracking mechanisms to ensure that a school board applied the funds provided for primary class size

reduction to create the appropriate number of new primary classrooms. In several boards, it was apparent that business processes at the school board level were not sufficient to support this enveloping. This emerged in part after slower than anticipated progress was reported on reducing primary class sizes. Most Ontario boards have reviewed their staffing process to ensure that primary class size funding supports new primary classrooms; however this has meant a major change in an important allocation process at the local level.

### ***Optimization software***

Clearly staffing is a complex process and there is software available to assist school boards, superintendents and principals in designing staffing plans which meet policy parameters. Most elementary schools are small enough that a logical staffing approach can be developed without software; however software can be useful at a board or district level to analyze and quantify the need for teachers to refine a given staffing plan to a staffing plan which meets the primary class size cap requirements (or other policy goals).

Some large Ontario boards do use staffing software, although Ontario has not mandated this. Provincially, forecasting models do use optimization logic. Some educational software suppliers are developing this functionality within their suite of applications so the use of this type of software may become more prevalent in the future.

### ***Transitional Program Equivalency***

Although operating funds for the primary class size initiative began to be allocated in 2004-05, capital funds began to be allocated in 2005-06, and the majority of construction began in 2006-07. In the early years then, an additional aspect of flexibility was available for boards that might conceivably be facing a capital constraint on their ability to establish new primary classrooms.

Transitional program equivalency was an option that allowed boards to use their additional primary teachers in a team teaching or resource model if they could establish that the board did not have any surplus classroom space to use for new primary classrooms.

Applications for this aspect of flexibility were fairly low and approvals even lower. Although applications were initially high, discussions between the Ministry of Education and applying school boards to review available capital space resulted in most applications being withdrawn or not approved. In total, approvals to date have been provided for fewer than 100 teachers to be deployed in alternative ways other than as classroom teachers, on a one year bridging basis. In any given year, less than 2% of new funded teachers were deployed in this manner

and it is expected that by full implementation this flexibility will no longer be required.

This flexibility did allow the province to bridge the time lag between operating funding and capital construction, but due to declining enrolment and the existence of surplus classroom capacity in most areas, this has applied to relatively few boards.

## **Conclusion and Lessons Learned**

Ontario has implemented a large scale education reform over the past four years, with many ambitious elements contributing to a very positive improvement in student achievement. Implementing the cap on primary class size classes has been one of the more straightforward elements in these reforms, although not without challenges. Over the first three years of implementation, a number of key “lessons learned” can be summarized, for the benefit of other jurisdictions that may consider such an initiative:

- It can be difficult to estimate the number of teachers needed and therefore, the projected cost and progress of such an initiative. The number of teachers needed to achieve a steady decline in class sizes is not linear (costs rise as class size declines) and factors such as school organization and school board expertise in running staffing processes are very relevant.
- Although Ontario has experienced a significant decline in enrolment in primary grades, this has not lowered the projected number of teachers required proportionately, as the number or grade make-up of schools has not changed significantly in this period of time.
- A transparent reporting mechanism for results-a sunshine approach- is extremely important, both to keep school boards focused on implementation and progress and to keep parents and the public informed.
- The choice of count date is a surprisingly critical decision and Ontario’s policy choice, to allow school boards to use their own locally determined cut-off date for school reorganizations, has been a good one, in that it has balanced the need to minimize disruption to students with the need for integrity in measuring outcomes.
- Measurement “rules”, such as how to count combined grade 3 and 4 classes, and the treatment of small special education classes, have to be thought through carefully to avoid creating undesirable incentives and to avoid distorting results. The earlier these rules are decided and disseminated, the more comparable year over year data can be.

## Implementing Primary Class Size Caps in Ontario

- School boards need time to implement a major class size reduction initiative. The changes needed to school board staffing and staff allocation processes, to achieve the change in focus from class size averages to class size caps, have been significant. The multi-year implementation timeline has been very important in supporting this change in approach.
- School boards have also needed considerable time to do capital planning and to undertake capital projects. Most capital projects are additions and renovations, or the addition or relocation of relocatable classrooms. These projects require proportionally more administrative time than “greenfield” or full school construction projects.
- The addition of some flexibility at full implementation (the ability to allow one primary class in ten to have up to 23 students) has been a good, constructive policy choice. This flexibility has reduced concerns about implementation significantly and will serve to minimize disruption to students.
- The ability of boards to reach and maintain the cap is somewhat dependent on “will and skill”, and not entirely on resources provided. In the early years of implementation, school boards have shown very different levels of progress at comparable levels of funding.
- Complementary reforms and investments-in teacher training, in differentiated instruction, in the focus of expertise and resources on low achieving schools – are essential to maximizing the academic benefits from class size reduction.

## References

For more information on Ontario's education system, see the Ontario Ministry of Education website at [www.edu.gov.on.ca](http://www.edu.gov.on.ca). More information on Ontario's primary class size reduction initiative can be obtained at this website by following the links to "class size tracker".

More information on Ontario's funding model for school boards can be obtained at this website by following the links to "education funding". The most detailed description of the Ontario funding model is provided in the document entitled "2007-08 Technical Paper".

Questions or comments may be directed to the author at [nancy.naylor@ontario.ca](mailto:nancy.naylor@ontario.ca).

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