



MANAGEMENT ANALYSIS & PLANNING, INC

ONTARIO FINAL REPORT

Submitted to
Value For Money Review

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February 6, 2002

Table of Contents

Executive Summary	3
Introduction: A Vision for Ontario Publicly Funded Schools	4
A Vision of 21st Century Ontario Education	4
Progress Toward the New Paradigm	6
Section 1A: Methodology	7
Section 1B: List of Jurisdictions and Organizations Studied	8
Section 1C: Specific Areas of Study	9
Section 2A: Ontario’s Publicly Funded Education System	10
Comparative Descriptions – Inputs: Enrolment	10
Comparative Descriptions – Inputs: Revenues	11
Comparative Descriptions – Inputs: Expenditures	13
Comparative Descriptions – Inputs: Class Size and Teacher Remuneration	14
Comparative Descriptions - Student Performance: International Assessments	16
Section 2B: Summary of Current Ontario Publicly Funded Education System	19
Section 3A: Summary of Observations and Recommended Actions	20
Section 3B: Program Analysis and Recommendations	21
School-Based Funding and Budgeting	21
Block Grant of Special Purpose and Pupil Accommodation Grants	23
Continuing Education	25
Transportation	26
School Facilities	27

Pupil Assessment and Reporting	27
Information Services	29
Special Education	30
Employment Relations	31
Teacher and Administrator Credentialing and Oversight	32
Section 4: Conclusions	34
Section 5: Team Members	34
Appendix A: Equity Statistics	36
Appendix B: School-Based Funding and Budgeting Implementation Guidelines	39
Appendix C: Special Education Funding	41
Appendix D: Texas Information System Framework	42

Executive Summary

The Value for Money Review education panel has the bold task of analyzing the publicly funded education system in Ontario to determine strengths, weaknesses, potential areas for improvement, and ultimately, to make recommendations that increase the value for money to Ontario taxpayers.

Though other provinces have made significant increases in spending over the past five years, Ontario continues to spend more per pupil than most Canadian provinces. As an indicator of system health, then, Ontario's publicly funded schools should surpass other provinces on student achievement comparisons. Looking at comparative student performance, however, shows that Ontario students perform at or below the Canadian average and significantly and consistently below the students in Alberta, British Columbia, and Quebec. Alberta and Quebec, in fact, spend less per student than Ontario, while British Columbia spends slightly more than Ontario. Therefore, these provinces appear to receive greater value for money from their publicly funded education systems than does Ontario. What becomes apparent from this analysis is that more money is not the reason for better student and system performance. Instead, how that money is utilized is more important.

Ontario's publicly funded education system resembles the same structure and institutions that have governed public education in North America and around the world for more than 100 years. As a command-and-control system that judges performance by rules and regulations compliance, these institutions are incompatible with the needs of the 21st Century. What is needed is a system that is driven by performance – student outcomes and measures of efficiency being two types of performance.

The Value for Money Review education panel determined that Ontario has the beginnings of a 21st Century system, but a comprehensive reform package must be put in place to support the systemic change. The education panel, therefore, recommended ten fundamental initiatives that focus the mission of the publicly funded education system and change the way the system provides for educational and related services. At the same time, these reforms could result in significant cost savings – improved system performance at lower costs leads to greater value for money.

These initiatives could result in \$8 MM to \$533 MM in cost savings for 2002/03 and \$178 MM to \$788 MM when fully implemented. More importantly, these initiatives improve the way that publicly funded education is delivered to Ontario students.

Introduction: A Vision for Ontario Publicly Funded Schools

Ontario's publicly funded education system is not bad. By comparison, there are many worse, even without going beyond North America's borders. However, neither are Ontario's schools outstanding. When taken as a whole, they are mediocre. Here is an illustration.

Results from the 2000 Programme for International Student Assessment (PISA)¹ of 15-year-olds in reading, math, and science literacy reveal Ontario students performing close to the overall Canadian average in reading and slightly below the Canadian average in mathematics and science.²

Average scores for Ontario students below the 50th percentile of the tests' metric were consistently lower than the overall Canadian average scores below the 50th percentile. More dramatic were the across-the-board differences in scores between Ontario students and students from Alberta, British Columbia, and Quebec. Alberta and Quebec had student scores among the highest scores in the world while spending less per student than Ontario – a truly world-class education.

Ontario's lackluster schooling cannot be attributed to deficient resources. Rather, in this instance, mediocrity stems from collective complacency, the practical expressions of which are low expectations for schools and lack of serious consequences for poor performance.

Fortunately, solutions to Ontario's education problems are within reach. The province's existing mechanisms for financing schools achieve equity of resource distribution. This accomplishment alone places Ontario ahead of many counterparts. Now, looking to the immediate future, reasoned cost cutting (details of which will follow in this report) could contribute to greater efficiency. Thereafter, these operating reforms can bring excellence within reach.

A Vision of 21st Century Ontario Education

For Ontario public schools to move readily and perform effectively in the 21st Century, the provincial government must change its education model. Provincial authorities should be responsible for setting standards (Mission), distributing formula-based funding (Money), and evaluating student achievement and grading schools (Measurement). The province also can assist local under performing districts requesting services, through coordination of expertise (Mobilization).

¹ PISA is a collaborative effort among member countries of the Organization for Economic Co-operation and Development (OECD).

² "Measuring up: The performance of Canada's youth in reading, mathematics and science," OECD PISA Study – First Results for Canadians aged 15, Statistics Canada.

The education model recommended here, and upon which the remainder of this report is premised, redistributes authority between the center and the periphery. Some functions are held dearly at the center. Others are consciously delegated to those operating individual schools. Only in this manner can the province's elected representatives forcefully set direction for education and simultaneously ensure accountability for results, appropriately empower professional educators, and encourage participation by local citizens. Here are a few details regarding the preferred model.

By "mission" we refer to the setting of direction in education for the overall province. This should not translate to an empty platitude such as "Educate the Whole Child." Instead, it should manifest itself in a set of performance expectations set for schools and actual achievement targets for each school established by the ministry.

"Money" refers to the distribution of centrally collected or directed resources. The present formula achieves a high degree of funding parity. Steps should eventually be taken to extend this distribution arrangement so that the province is distributing resources to local schools, rather than local districts.

"Measurement" refers to the use of province-wide tests and other quantifiable measures (e.g., drop out measures, parental satisfaction, expulsion or suspension rates, college applications and admissions, and after graduation activities). By the use of performance measures, targeted upon each student and aggregated to the school and to the district, central authorities can exercise an appropriate degree of accountability. Measurement is a sine qua non. In a system by which direction is set and resources distributed from the center, then the only effective accountability is for performance. Attempting to "control" the system through the regulation of process and by monitoring only results in bureaucracy and an erosion of performance inducement.

"Mobilization" refers to two sets of activities triggered by persistent low performance. One set of activities involves consequences. The other set involves assistance.

On the "consequence" side, persistent low performance by a school should trigger provincial intervention and parental authority to transfer a child to another school.

The other set of activities, assistance to low performing schools, is possibly offered by the Ministry of Education, but also can be made available from other sources, such as private providers. Resources for paying for assistance should come from school and district budgets.

There is another "M" word. We refer here to "methods." In this model, methods stem from schools. It is here that a headmaster or headmistress determines how to operate a school. He or she will pursue provincial performance targets, decide how best to use provincially provided resources, and submit to the discipline of provincially determined measurements. However, the

head determines how a school should operate and should be held responsible for ensuring high performance.

Progress Toward the New Paradigm

The Value for Money Review education panel, in observing the publicly funded education system of Ontario, identified a number of program and institutional elements that reflect this new paradigm. Though these programs or institutions are far from perfect in their current implementation, their presence is a necessary first step towards a high-performing education system. As is the case for each of the four Ontario elements listed, the programs and institutions are relatively new and are establishing themselves as useful components of the Ontario the educational landscape.

- Provincial standards and assessment
 - Development of curriculum standards for publicly funded education
 - Assess students' performance in grades 3, 6, 9, and 10
 - Assessment tools aligned with provincial curriculum standards
 - Development of uniform graduation standards across the province
- Funding formula implemented in 1998
 - Strive for funding equity
 - Addresses spectrum of circumstances throughout the province
- Ontario Principals' Council
 - Nonstatutory, voluntary organization
 - Development of thorough professional development programs
 - Study of the profession (employment trends, effectiveness, best practices)
 - Working to establish competency tools for professional educators
- Ontario College of Teachers
 - Professional oversight agency similar to medical and bar associations
 - Study of the profession (employment trends, effectiveness, best practices)

In a 21st Century performance-driven school system, local educators should be provided with measurable goals and outcomes (Mission and Measurement), the financial resources to pursue and accomplish those outcomes (Money), and maximum flexibility and discretion with those resources (Methods). For those schools that fail to meet the established standards, assistance from local districts, the province, or third parties should be available at the request of the school (Mobilization).

The Ontario publicly funded education system, having already put some of the proper pieces in place, has an opportunity to move towards a 21st Century performance-driven system based on local autonomy and away from a compliance-based system of top-down regulations. However, individual pieces alone are not sufficient to drive the system to high performance. Each piece relies on the others for full effectiveness. Mission, measurement, and money are not enough so long as the methods are dictated from afar.

Section 1A: Methodology

The objectives of the Value for Money Review education panel include (1) finding ways to achieve greater effectiveness, (2) realizing greater efficiencies, and (3) ensuring against redundancies and unproductive expenditures in the Ontario publicly funded school system. With these objectives in mind, any program initiatives or cost-cutting measures put forward by this panel will be considered if they will support the ability of the system to deliver effective instruction to students in the classroom, now and in the future.

It is the intent of this report to suggest structural reforms and money-saving considerations that, if taken, would improve the infrastructure of Ontario education and increase the value for money to Ontario taxpayers.

The limited and shortened time frame provided to this review panel presented a formidable task given the objectives of this review panel and the complexity of the organizations and services being studied. To accomplish the stated objectives, members of education review panel:

- Studied the organizational and governance structure of publicly funded education in Ontario
- Researched the legislative environment in which it exists
- Analyzed historic and trend input and outcome data related to the system
 - Collected and analyzed publicly available Ontario publicly funded education input data, e.g., revenues, expenditures, enrolment, and staffing patterns and characteristics
 - Collected and analyzed Ontario publicly funded education outcomes data, e.g., provincial assessments, international assessments (Third International Math and Science Survey (TIMSS and TIMSS-R) and Program for International Student Assessment (PISA)), completion rates
- Interviewed a broad range of constituencies related to Ontario publicly funded education
- Reviewed research literature, domestic and abroad, related to issues facing Ontario

- Scanned media reports related to education in the province
- Examined the published results of past efforts to render Ontario's education system more productive

The Value for Money Review education panel utilized this broad strategy to capture as much about the Ontario publicly funded school system as possible. The following sections report what the education panel learned about the system followed by recommendations to move the system towards that 21st Century vision of publicly funded education and to improve the quality of education being delivered in Ontario.

Section 1B: List of Jurisdictions and Organizations Studied

The Value for Money Review education panel appraised the organizational and governance structures surrounding Ontario's publicly funded school system. For a macro view of the system and its operations, the education review panel obtained the 2001/02 business plans for the Ontario Ministry of Education and Ontario Ministry of Training, Colleges and Universities. An array of publicly funded education stakeholders and constituencies were interviewed to gain insight into service delivery processes. Individuals within the following organizations were interviewed in person or by telephone by one or more panel members:

- Ministry of Education
 - Finance
 - Transportation
- Ministry of Labour
 - Labour Management Services (collective bargaining environment)
 - Collective Bargaining Information (compensation and benefits)
- Ontario Public School Boards Association (OPSBA)
- Ontario Teachers Federation (OTF)
- Ontario Principals' Council (OPC)
- Ontario College of Teachers
- Education Quality and Assessment Office (EQAO)
- One English Catholic school district – Finance

- One English public school district - Finance

Section 1C: Specific Areas of Study

Within the Ministry of Education, the following programs were examined in detail (2001/02 funding, unless otherwise noted).

- **Foundation Grant** (\$7.64 Bn) – the primary grant to provide for the core education of every student.
- **Teacher Resource Allocation, Credentialing, and Relations** (approx. \$7.0 Bn in salaries and wages) – involves the utilization and compensation of classroom teachers and other classroom staff (supply teachers, teacher assistants), analysis of the teaching profession, and employment relations.
- **Pupil Accommodation Grant** (\$2.24 Bn) – three main components help school boards meet the cost of operating and maintaining schools, and providing new classroom accommodation where required.
- **Special Education Grant** (\$1.37 Bn) – provides funding for students with special needs.
- **School Administration** (\$608 MM) – involves the utilization and compensation of principals and vice principals.
- **Transportation Grant** (\$581 MM) – provides funding to school boards for the transportation of students.
- **Administration and Governance Grant** (\$453 MM) – provides funding for the governing of school boards.
- **Language Grant** (\$408 MM) – provides funding to meet school boards' costs for language instruction.
- **Learning Opportunities Grant** (\$280 MM) – includes funding for at-risk students and for literacy initiatives.
- **Geographic Circumstances Grant** (\$188 MM) – includes grants for small schools and for remote and rural boards.
- **Continuing Education and Other Programs Grant** (including International Languages Studies – Heritage Languages) (\$138 MM) – supported 52,000 FTE students in 2000-01.

- **Early Learning Grant** (\$13 MM) – provides funding to support early learning in those districts that do not provide universal junior kindergarten
- **Information Systems** (\$7.5 MM) – oversees the development of student, school, and district data management.
- **Pupil Assessment and Reporting** – involves the development, implementation, and reporting of pupil assessment in publicly funded schools.

Section 2A: Ontario’s Publicly Funded Education System

Ontario’s system of publicly funded schools serves children in grades JK (junior kindergarten) through 12. The province created a new secondary school curriculum and graduation standards in a JK-12 setting.

Ontario’s publicly funded education is the responsibility of the provincial Ministry of Education, administered through 72 locally elected school boards, and served through 4,790 elementary and secondary schools.³ Provided guarantees through the Canadian constitution, Ontario’s 72 school boards consist of 31 English-language public boards, 29 English-language Catholic boards, four French-language public boards, and eight French-language Catholic boards. Serving French and Roman Catholic students separately within the publicly funded system makes Canada unique in North America in its governance structure. As we shall see, operating and implementing school districts separately by language and religious affiliation, many with overlapping boundaries, may result in inefficiencies – inefficiencies that reduce the value for money to Ontario citizens.

Comparative Descriptions – Inputs: Enrolment

Ontario is the largest province in terms of the size of its student population. According to the Ontario Ministry of Education, the 2001/02 average daily enrolment is projected to be 1,991,625, an increase of 0.90 percent from the previous year.⁴ In fact, Ontario’s headcount and full-time equivalent (FTE) enrolment was nearly twice as large as Quebec, the second largest province in terms of student enrolment, and Ontario’s student enrolment accounted for nearly 40 percent of Canada’s total student enrolment in 1999/00 (Table 1 and Table 2).⁵

³ Ontario Ministry of Education “Quick Facts, Ontario Schools, 1999-2000.” Found at www.edu.gov.on.ca/eng/general/elemsec/quickfacts/1999-00/#enrolment.

⁴ Ontario Ministry of Education “Student-Focused Funding Parents Guide 2001-02,” Spring, 2001.

⁵ Inter-Provincial Education Statistics Project, Summary of school statistics from the provinces and territories, Table 2, Data Covering School Year 1999/00.

Table 1: Headcount enrolment of selected provinces 1993/94 to 1999/00

Year	BC	Alberta	Saskat	Mani	Ontario	Quebec	NB	NS	Canadian Total
1994	568,668	512,681	195,951	192,634	2,042,710	1,262,206	138,716	165,890	5,243,612
1995	582,781	514,498	195,211	191,629	2,069,989	1,266,110	136,618	164,433	5,281,569
1996	594,773	523,403	194,562	192,023	2,116,444	1,276,638	135,058	164,020	5,355,017
1997	607,644	526,930	193,881	192,176	2,080,197	1,267,336	133,276	163,941	5,319,748
1998	615,980	534,618	192,508	191,856	2,103,586	1,260,301	131,586	162,359	5,342,773
1999	614,458	542,047	190,899	192,204	2,119,841	1,250,248	129,131	160,011	5,344,560
2000	613,607	545,982	188,686	196,638	2,138,577	1,244,534	127,003	158,205	5,347,219
%Chg 94-00	7.90%	6.50%	-3.71%	2.08%	4.69%	-1.40%	-8.44%	-4.63%	1.98%

Source: Inter-Provincial Education Statistics Project, Summary of school statistics from the provinces and territories, Table 2, Data Covering School Year 1999/00.

Table 2: Full-time equivalent (FTE) enrolment of selected provinces 1993/94 to 1999/00

Year	BC	Alberta	Saskat	Mani	Ontario	Quebec	NB	NS	Canadian Total
1994	547,016	495,335	188,691	185,482	1,906,836	1,086,258	138,716	165,890	4,873,639
1995	560,659	488,716	187,857	184,400	1,929,473	1,082,240	136,618	164,433	4,889,930
1996	572,056	500,546	187,256	184,715	1,965,589	1,087,468	135,058	164,080	4,949,876
1997	584,905	508,868	186,964	184,900	1,946,390	1,087,696	133,276	163,941	4,946,733
1998	593,362	516,333	185,689	184,906	1,972,060	1,118,323	131,586	162,359	5,009,904
1999	592,695	523,757	184,369	185,251	1,989,159	1,116,249	129,131	160,011	5,021,862
2000	592,057	527,630	182,291	189,952	2,004,356	1,101,077	127,003	158,205	5,012,780
%Chg 94-00	8.23%	6.52%	-3.39%	2.41%	5.11%	1.36%	-8.44%	-4.63%	2.85%

Source: Inter-Provincial Education Statistics Project, Summary of school statistics from the provinces and territories, Table 2, Data Covering School Year 1999/00.

Ontario's FTE enrolment increased from 1993/94 to 1999/00 by 5.11 percent, a larger increase than the Canadian average of 2.85 percent, but smaller than British Columbia and Alberta, 8.23 percent and 6.52 percent, respectively. Some provinces actually saw enrolment decreases over this same time period. Enrolment growth in Ontario, as with other provinces, could present challenges to the publicly funded education system (e.g., school capacity, financing and building of new facilities, programmatic offerings).

Comparative Descriptions – Inputs: Revenues

According to the Ontario Ministry of Education, the province estimates total allocation funding to school boards according to the student-focused funding model to be \$13,861,747,652, an increase of 2.78 percent from 2000/01 allocation estimates and an increase of 6.12 percent

from 1998/99 actual allocations.⁶ Though Ontario headcount and FTE enrolment increased modestly since 1998/99, the Ontario government has allocated greater amounts to school boards to support publicly funded education. Based on the Ministry's estimates of school board revenue allocations and average daily enrolment, Ontario will allocate 1.86 percent more per pupil in 2001/02 than 2000/01.

In 1998/99, Ontario introduced a new, student-focused approach to fund elementary and secondary education. Student-Focused Funding replaces a complex system of 34 different types of grants with a simpler set of 11 grants, the primary grant being the Foundation Grant to provide for the core education of every student. The Student-Focused Funding Foundation Grant for 2001/02 amounted to \$3,580 per elementary school student and \$4,331 per secondary school student.

One of the main goals of the new funding model was to provide equity across school districts – to treat like students from across the province equally. Applying generally accepted equity statistics to 1999/00 data,⁷ the average per-pupil foundation amounts allocated to school districts across the province are highly equitable, almost equal.⁸ From the aggregate 72 districts to each sub-category of district types (English public, English Catholic, French public and Catholic), the per-pupil foundation allocations to the districts surpass the standards typically accepted in school finance research (Appendix A).

However, the structure of the Student-Focused Funding model provides nine Special Purpose Grants in addition to the Foundation Grant to address apparent circumstantial differences faced by students and school boards.⁹ These nine Special Purpose Grants include:

1. Special Education Grant
2. Language Grant
3. Early Learning Grant
4. Learning Opportunities Grant
5. Geographic Circumstances Grant
6. Teacher Compensation Grant
7. Continuing Education and Other Programs Grant
8. Transportation Grant
9. School Board Administration and Governance Grant

⁶ 2001-02 figures taken from "Student-Focused Funding Parents Guide 2001-02." Other allocation data comes from Ministry of Education Provincial Summary, http://esip.edu.gov.on.ca/english/profiles/reports/provincial/Prov_summary.pdf.

⁷ Total Operating Allocation Per Pupil, 1999-00 Financial Statements, http://esip.edu.gov.on.ca/english/profiles/reports/provincial/Alloc_1999-2000.pdf.

⁸ This type of equity is often termed horizontal equity. A greater discussion can be found in Odden, A. and Picus, L. "School Finance: A Policy Perspective," chapter 2. McGraw-Hill 2000.

⁹ Additional funding such as these special purpose grants are often used to achieve vertical equity. See Odden and Picus 2000 chapter 2 for greater discussion.

Total district per-pupil operating allocations (including the Foundation Grant, nine Special Purpose Grants, and the Pupil Accommodation Grant¹⁰) deviate from the equity standards met through the foundation allocations, i.e., much greater variance in total per-pupil operating allocations across school boards. Deviating from these standards the furthest are the French-language school boards (Appendix A).

The deviation from the accepted equity standards results primarily from larger-than-average per-pupil Geographic and Transportation Grants to the French-language boards, and to some extent, the English Catholic school boards. Additionally, the French school boards also received larger-than-average Language Grants. The French school boards were allocated an average of \$575.46 in Language Grants compared to the overall provincial average of \$182.92.¹¹ Given the larger-than-average Geographic, Transportation, and Language Grants, the French districts were allocated more per pupil than the English-language boards. The lowest-allocated French district (\$6,628.88) was higher than the average of English public (\$6,389.76) and English Catholic (\$6,322.17) school boards.¹² The average French board was allocated \$8,064.98 per pupil. To be sure, the two boards with the largest per-pupil allocations in Ontario are both French-language school boards (one French public, one French Catholic), with total per-pupil revenue allocations exceeding \$10,000 per pupil.

The departure from the accepted equity standards does not necessarily indicate that equity is not achieved through the Student-Focused Funding model. Addressing differing circumstances, either student or board related, through adequate resources ensures that all children in Ontario have the opportunities to achieve to established provincial performance standards. Determining rational means to address those varying circumstances is paramount. Through the work of the Value for Money Review education panel, some doubt surrounds portions of the Student-Focused Funding model and the rationality in formula allocations.

Comparative Descriptions – Inputs: Expenditures

According to the Inter-Provincial Education Statistics Project, Ontario's operating expenditures per FTE pupil equaled \$6,552 in 1999/00, slightly higher than the overall Canadian average of \$6,434.¹³ Between 1993/94 and 1999/00, other provinces saw increases in per-pupil operating expenditures to levels comparable to Ontario; some raised to levels higher than Ontario, while others remained lower than Ontario.¹⁴ Some of these increases can be attributed to declining enrolments not matched by declines in expenditure levels, though most of the increases can be attributed to actual increases in operating expenditures.

¹⁰ The Pupil Accommodation Grant to fund the construction of new schools and additions; operating and maintenance costs (heating, lighting, cleaning); repairs and renovations; and the servicing costs of prior capital debt.

¹¹ The French boards average is an unweighted per-pupil average. The provincial average is a weighted per-pupil average.

¹² Unweighted per-pupil averages were calculated using 1999/00 Financial Statement data reported by district on a per-pupil basis.

¹³ Canadian average includes Ontario. Inter-Provincial Education Statistics Project, Table 12.

¹⁴ Inter-Provincial Education Statistics Project, Table 12.

Expenditures per pupil are often considered a quality barometer of a government’s publicly funded education system. However, the Value for Money Review education panel cautions against a bidding war to have the highest expenditure level in Canada and North America. Though British Columbia had per-pupil operating expenditures of \$6,612, higher than Ontario, Alberta and Quebec had lower per-pupil operating expenditures of \$6,207 and \$6,402, respectively.¹⁵ Results from the PISA indicate that Alberta and Quebec garner more value for money through greater results while spending less per student. These two provinces show that the amount of money alone is not an adequate barometer of system quality. Instead, how those resources are utilized is more important than the level of expenditures.

Comparative Descriptions – Inputs: Class Size and Teacher Remuneration

How schools allocate and utilize their resources, gaining more value for money, is perhaps more important than the level of resources. A major allocation of resources is the student-educator ratio. Aside from Quebec and Manitoba, the Ontario student-educator ratio has been consistently lower than the other provinces presented in Table 3 and slightly lower than the overall Canadian total.¹⁶

Table 3: Total Student-Educator Ratio (FTE), by Province

Year	BC	Alberta	Sask	Mani	Ontario	Quebec	NB	NS	Canadian Total
1994	16.76	17.59	17.03	14.93	15.02	14.35	16.88	16.39	15.43
1995	16.82	17.84	17.04	14.99	15.40	14.37	17.03	17.09	15.64
1996	16.76	18.33	16.96	15.31	15.61	14.39	16.86	17.54	15.79
1997	16.85	18.50	16.81	15.41	15.75	14.67	17.01	17.47	15.95
1998	16.97	18.51	16.71	15.37	15.83	14.87	17.10	17.28	16.04
1999	16.50	18.33	16.29	15.39	15.96	14.90	17.06	16.63	16.00
2000	16.59	18.44	16.21	15.78	15.93	14.73	16.77	16.46	15.96
%Chg 94-00	-1.04%	4.80%	-4.86%	5.72%	6.03%	2.64%	-0.60%	0.43%	3.40%

Source: Inter-Provincial Education Statistics Project

Using Ontario’s 1999/00 average daily enrolment and FTE educators, the elementary school student-educator ratio was 20.6-to-1, the secondary school ratio was nearly 16.9-to-1, and the overall ratio was 19.2-to-1.^{17,18} However, student-educator ratios provide only part of the

¹⁵ IBID.

¹⁶ Inter-Provincial Education Statistics Project, Table 11. Educators include all employees in the publicly funded education system (either school based or district based) that are required to have teaching certification as a condition of employment. This definition excludes substitute/supply teachers, temporary replacement teachers, teachers on leave, student assistants, teaching assistants, and consultants.

¹⁷ Ontario School Board Profiles, found at <http://esip.edu.gov.on.ca/english/>.

¹⁸ The difference between the overall ratio reported in the Inter-Provincial Education Statistics Project and the ratio calculated using Ontario Ministry of Education data can be accounted for in the numerator difference (FTE versus

picture of resource allocation as it impacts schools and classrooms. To see how those educators are deployed in the classroom, these ratios should be compared to average class sizes.

For 1999/00, Ontario average elementary class sizes had 23.7 students and average secondary class sizes had 20.5 students.¹⁹ The elementary school average class size was three students larger than the comparative average student-educator ratio. The secondary school average class size is 1.3 students larger than the comparative average student-educator ratio. From this brief analysis, Ontario elementary schools tend not to utilize their teachers in the classroom to the same extent as Ontario secondary schools, perhaps utilizing those teachers in non-teaching or administrative roles in the school or district. If class size is a concern of Ontario parents and educators, particularly in the elementary grades, the number of certified teachers available in Ontario is sufficient to further reduce class sizes. Average class size data from other provinces were not available to the Value for Money Review education panel.

While considering class size as a resource allocation issue, it is important to also consider teacher compensation, or educator remuneration. School officials must strike a balance between staffing levels (number of educators) and staffing costs (remuneration) given finite resources. As staffing levels increase, providing smaller class sizes, salaries must be kept in check to stay within funding boundaries. To remain competitive in the labor market for quality teachers, however, school officials must provide remuneration packages to attract and retain teachers, sometimes at the cost of larger class sizes. At the same time, though, class sizes are related to remuneration packages as improved working conditions for educators. The provincial government of Ontario has limited the balancing ability of local school officials by putting a cap on average class sizes in districts leaving school districts with little ability to bargain – the tradeoff between class sizes and teacher remuneration is limited.²⁰

average daily enrolment) and that all educators (teaching and non-teaching) are included in the Inter-Provincial Education Statistics Project.

¹⁹ Ontario Ministry of Education School Board Profiles, unweighted average of district average class sizes at the elementary and secondary levels.

²⁰ Average class size of no more than 24 in JK-3, 25 in grades 4 and 5, and 22 in secondary schools.

Table 4: Average Remuneration per Educator for Selected Provinces

Year	BC	Alberta	Saskat	Manit	Ontario	Quebec	NB	NS	Canadian Total
1994	53,859	53,172	49,315	50,360	55,705	45,337	43,615	48,998	51,593
1995	54,530	50,881	50,535	51,103	55,932	45,610	44,184	49,974	51,772
1996	55,323	51,419	50,570	51,756	55,562	45,791	45,757	48,643	51,912
1997	55,787	52,454	50,313	51,865	56,444	45,904	N/A	48,289	N/A
1998	56,418	53,726	51,554	52,404	55,579	43,422	46,771	48,174	51,754
1999	55,427	55,468	49,797	53,729	58,000	44,850	47,975	49,150	53,204
2000	55,816	55,957	50,315	55,085	57,157	47,526	50,120	50,975	53,764
%Chg 94-00	3.63%	5.24%	2.03%	9.38%	2.61%	4.83%	14.91%	4.03%	4.21%

Source: Inter-Provincial Education Statistics Project

Table 4 shows the average remuneration per educator in Canada. Ontario educators enjoy the highest average remuneration. Provinces such as Alberta, Manitoba, and New Brunswick saw the largest increases between 1994 and 2000. In the case of Manitoba, their average remuneration per educator rose to levels above the overall Canadian average. As is the case with expenditures per student, this indicator should not necessarily be seen as a barometer of educator quality or system quality. Given that, the province should be aware not to get into a bidding war for the highest average remuneration alone. Instead, boards in Ontario should push to remain competitive with other boards within Ontario and across Canada to attract and retain quality teachers while considering the finite nature of available resources.

Comparative Descriptions - Student Performance: International Assessments

One of many different outcome measures of publicly funded education is student performance on various assessment measures. The Programme for International Student Assessment (PISA) is a collaborative effort among member countries of the Organisation for Economic Co-operation and Development (OECD) to regularly assess the achievement of 15-year-olds in three domains – reading literacy, mathematical literacy, and scientific literacy – through a common international test. In relation to other participating OECD countries, Canada, as a whole, compared favorably, particularly in math and science.²¹ In the case of PISA, Canadian student performance could be disaggregated to the provincial level.

As Table 5 and Table 6 show, Alberta, British Columbia, and Quebec have higher average scores in reading and math than the overall Canadian average scores in these two subjects. Most pronounced are the high average scores of Alberta in reading and math and Quebec in math. In fact, Alberta's average score in reading was the highest of the participating OECD countries. The average scores in math by Quebec and Alberta were second only to Japan. Ontario, on the other

²¹ Measuring Up: The Performance of Canada's Youth in Reading, Mathematics and Science, OECD PISA Study – First Results for Canadians aged 15. Statistics Canada.

hand, had an average reading score similar to the overall Canadian average. The average math score for Ontario was lower than the Canadian average and lower than five other Canadian provinces.²²

Table 5: PISA Reading Averages and Confidence Intervals

Country and Province	Average	Confidence Interval
Alberta	550	6.5
British Columbia	538	5.7
Quebec	536	6.0
CANADA	534	3.1
Ontario	533	6.5
Manitoba	529	7.0
Saskatchewan	529	5.3

Source: Measuring Up: The Performance of Canada’s Youth in Reading, Mathematics and Science, OECD PISA Study – First Results for Canadians aged 15, Table 1.1

Table 6: PISA Mathematics Averages and Confidence Intervals

Country and Province	Average	Confidence Interval
Quebec	550	5.4
Alberta	547	6.6
British Columbia	534	5.6
Manitoba	533	7.3
CANADA	533	2.8
Saskatchewan	525	5.8
Ontario	524	5.8

Source: Measuring Up: The Performance of Canada’s Youth in Reading, Mathematics and Science, OECD PISA Study – First Results for Canadians aged 15, Table 1.2

Beyond the average scores, the PISA data provided a glimpse of the scoring distribution beyond the average scores. The importance of a scoring distribution comes from analyzing how much difference in scores exists from the lowest performers to the highest performers. Table 7 and Table 8 show the scores at different percentiles for Canada and some Canadian provinces.

²² Comparisons of student performance across provinces should be tempered by a lack of data available about the student population characteristics across the Canadian provinces.

Table 7: Reading Scores at 5th, 10th, 25th, 50th, 75th, 90th, 95th Percentiles

Country/ Province	5th	10th	25th	50th	75th	90th	95th
Alberta	381	423	489	557	620	672	702
BC	373	410	473	546	605	657	687
Ontario	365	405	469	540	601	653	682
Quebec	377	414	481	546	603	651	679
Saskatchewan	373	410	467	531	591	641	672
CANADA	371	410	472	540	600	652	681

Source: Measuring Up: The Performance of Canada's Youth in Reading, Mathematics and Science, OECD PISA Study – First Results for Canadians aged 15, Table 1.7

Table 8: Mathematics Scores at 5th, 10th, 25th, 50th, 75th, 90th, 95th Percentiles

Country/ Province	5th	10th	25th	50th	75th	90th	95th
Alberta	402	437	490	550	607	656	680
BC	390	422	477	537	594	642	669
Ontario	383	416	467	526	581	629	657
Quebec	407	443	496	554	608	654	680
Saskatchewan	394	425	473	525	577	625	653
CANADA	390	423	476	536	592	640	668

Source: Measuring Up: The Performance of Canada's Youth in Reading, Mathematics and Science, OECD PISA Study – First Results for Canadians aged 15, Table 1.8

Not only do Alberta and Quebec have the highest average scores of Canadian provinces, and among the highest in the world, Table 7 and Table 8 show that their scores across the different percentiles are consistently higher than the Canadian average, and much higher than Ontario, in both reading and math. In fact, Ontario reading scores below the 50th percentile are below the Canadian average with scores above the 50th percentile similar to the Canadian average. In math, Ontario scores were consistently lower than the Canadian average across all percentiles. Ontario math scores surpassed those of Saskatchewan at and above the 50th percentile.

The significance of Ontario's consistently lower scores across the different percentiles is that the low-achieving students in other provinces are performing better than comparable Ontario students and high-achieving students in other provinces are performing better than comparable Ontario students – better performance across the board by other Canadian province students. In particular, students in Alberta, British Columbia, and Quebec perform better in reading and math across all percentiles than tested students from Ontario.

Section 2B: Summary of Current Ontario Publicly Funded Education System

The publicly funded education system that helps provide the academic training and skills for Ontario students to enter the 21st Century appears to need improvement. International comparisons of performance show Ontario students below their counterparts in other Canadian provinces. Though above the international averages, the performance of students in other provinces shows that more can be done in Ontario to provide a world-class education. In terms of value for money, these provinces are getting better student performance, as measured by these international assessments, for less money. The Mission of publicly funded education in Ontario should be to have student performance higher than the Canadian average and comparable to those provinces that lead the world (Measurement).

The introduction of Student-Focused Funding in 1998/99 was a first step towards equitable funding (Money) of students across Ontario. As a whole, Ontario spends more per student than most provinces, including some of those that perform better than Ontario. This level of funding has allowed Ontario teachers to have high average remuneration while maintaining low student-educator ratios and class sizes. While usually a tradeoff between the two, Ontario educators enjoy both. What becomes evident, based on these facts, is that money alone is not the way to better student performance. How that money is utilized is the key to an improved publicly funded education system.

Though funding is higher than most higher-achieving provinces, the boards and schools in Ontario have little flexibility to employ the resources in ways (Methods) that may be most appropriate for the children being served in their schools. Enveloped funding and mandated average class sizes are just two examples of how the methods available to schools and boards have been constrained.

Some parts of a performance-driven system have been put into place in Ontario; however, that is a start. Though the role and actions of some of these performance-driven parts, e.g., Ontario College of Teachers, are still evolving, their presence, alone, is significant. However, the presence of individual parts will not propel Ontario performance. Comprehensive reform strategies that address all parts of the publicly funded education system – strategies that are inter-related – must be implemented to gain greater value for money in Ontario.

The next section provides specific observations and recommended actions for Ontario's publicly funded education system to continue to move towards a performance-driven system. The recommendations put the necessary pieces together so that the concepts of Mission, Money, Measurement, Mobilization, and Methods work in concert rather than independently in a disjointed and fragmented manner.

Section 3A: Summary of Observations and Recommended Actions

In an effort to move the province to a performance-driven system from a command and control compliance-based system, the Value for Money Review education panel puts forward its analyses of initiatives that the panel is confident in recommending based on analysis of available data and information and by determining the applicability of best practices from around the world that would increase the value for money in Ontario's publicly funded education system.

Summary of Observations and Recommendations

As part of the Value for Money Review, this report examines the current publicly funded education system, with a focus on recommending cost-saving methods of delivering educational services.

Some key *observations* in the area of education are:

- Funding to the school boards for the 2001/02 educational year is nearly \$13.9 Bn, a six percent increase from the 1998/99 year
- Autonomy, authority, accessibility, and accountability for operations and student results improperly aligned to institutions
- Special Purpose and Pupil Accommodation Grants amount to \$6.285 Bn
- Certain programs that are currently funded, such as adult education and International Languages, are not essential to the core educational mission, and result in greater benefits to an individual recipient than to the general public
- The value of certain grants, such as transportation grants, are determined based on historical patterns, rather than on need
- Typical facilities procurement relies solely on board and provincial financing and ownership
- The ability to measure student and school progress incomplete
- The current data collection, management, and analysis process is inadequate at the school, board, and provincial levels
- Accountability for student results and administrative requirements lacking in special education
- Modes of employee selection and compensation outdated and inflexible

Our *recommendations* for education reform include:

- Introducing school-based funding and budgeting to transfer funds and resource allocation authority to where the service is delivered
- Simplifying special purpose grants funding through use of an equalized block granting process
- Eliminating certain Continuing Education Grant programs from government funding
- Implementing a technology-based initiative to determine rational funding levels for transportation
- Relying on P3 arrangements, especially in high-growth areas, for facilities procurement
- Determining value-added performance by assessing students annually in grades 3-10
- Introducing an information system to manage data collection, management, and analysis
- Provide choice of special education service providers to schools and parents to increase options and accountability
- Implementing dual contracts for employees for pay schedules, portable pensions, benefits, and working conditions
- Implementing an alternative certification processes for teachers and administrators to overcome anticipated shortage

It is estimated that implementing the above recommendations in the 2002/03 school year will result in estimated savings between \$8 MM and \$533 MM. When fully implemented in 2005/06, these recommendations will save an estimated \$178 MM to \$788 MM. The wide range of cost savings reflects the flexibility of implementation strategies. The lower bound of cost savings is the sum of low-end estimates of each recommendation. The upper bound of cost savings is the sum of high-end estimates of each recommendation. The above recommendations require expenditures of \$43 MM in 2002/03, \$39 MM in 2003/04, \$39 MM in 2004/05, and \$19 MM annually thereafter.

Section 3B: Program Analysis and Recommendations

School-Based Funding and Budgeting

There is an estimated \$13.8 Bn allocated to school boards for 2001/02; however, the current funding process for publicly funded education is not designed to directly fund those institutions responsible for service delivery. Currently, funding is given to the boards, which then distribute it among the schools.

Recommendations and Analysis

To provide funds to the institutions responsible for service delivery, the government should move to a school-based funding and budgeting model of publicly funded education. This will allow the majority of funding to go directly to the school sites to provide educational services, enabling schools to purchase the necessary educational and ancillary services from school boards, regional consortia, or third-party providers. Experiences with school-based funding and budgeting in the United Kingdom, Australia, and Alberta demonstrate the potential for achievable savings, primarily from a reduction in district and board activities.

The move to a school-based funding and budgeting model for publicly funded education should be phased in over a four-year period.²³ Implementation should include 25 percent of schools into the new system each year, starting in 2002/03. Legislative changes to Student-Focused Funding will be required to move from the current district-funded system to the new school-funded system. Funding should be sent to schools and districts in the following way, consistent with the Block Grant Simplification recommendation made by this panel:

School-Level Grants

- Flat, per-pupil allocations
 - Foundation Grant
 - SEPPA funding from the Special Education Grant
 - Language Grant
 - School Operations funding from the Pupil Accommodation Grant
 - Literacy program funding from the Learning Opportunities Grant
 - Early Learning Grant

- Variable, per-pupil allocations
 - Demographic Component (at-risk student) funding from the Learning Opportunities Grant
 - Small School allocation from the Geographic Circumstances Grant
 - Teacher Compensation Grant

District-Level Grants

- Flat, per-pupil allocations
 - Summer School and Transition Programs funding from Continuing Education Grant
 - School Board Administration and Governance Grant (reduced to 25-50 percent of current funding levels)

²³ See Appendix B for greater discussion about roles and responsibilities in a school-based funding and budgeting landscape.

- Variable, per-pupil allocations
 - ISA funding from the Special Education Grant
 - Remote and Rural Boards funding from the Geographic Circumstances Grant
 - Transportation Grant
 - School Renewal funding from the Pupil Accommodation Grant
 - New Pupil Places funding from the Pupil Accommodation Grant
 - Prior Capital Commitments funding from the Pupil Accommodation Grant

Under a school-based funding system, those accountable for results have the autonomy and authority to allocate resources accordingly. It is estimated that savings of \$227 to \$340 MM in School Board Administration and Governance Grant funding can be realized at the end of the four-year implementation.²⁴

Block Grant of Special Purpose and Pupil Accommodation Grants

In the 1998-99 school year, Ontario introduced a new, student-focused approach to fund elementary and secondary education.²⁵ Student-Focused Funding replaces a complex system of 34 different types of grants with a simpler set of 11 grants. There are currently 10 full grants separate from the Foundation Grant used to allocate operating and capital funding to publicly funded schools and boards, amounting to over \$6Bn in 2000/01.

Most of these funds could be more appropriately block granted and allocated to schools and districts on an enrolment basis. Through block granting, funding for a number of different and unrelated educational programs is combined into general funds block grants allocated separately to schools and districts.²⁶ Funding from the following grants would more appropriately be allocated in per capita block grant form to schools and districts:

- Special Education Per Pupil Amount (SEPPA) of the Special Education Grant
- Language Grant
- Literacy component funding of the Learning Opportunities Grant
- Non-adult education funding of the Continuing Education Grant
- Early Learning Grant

²⁴ Total estimated savings come from School Board Administration and Governance Grant being reduced by 50-75% of current year funding. First-year savings come from 25% of schools transitioning to new funding system at 50% of School Board Administration and Governance Grant.

²⁵ <http://www.edu.gov.on.ca/eng/document/nr/01.05/overview.html>.

²⁶ Consistent with School-Based Funding and Budgeting recommendation.

- School Board Administration and Governance Grant
- School Operations funding of the Pupil Accommodation Grant

Recommendations and Analysis

A revised Special Purpose and Pupil Accommodation Block Grants structure should be implemented for the 2002/03 school year provided in the School-Based Funding and Budgeting recommendation in this report. This will require legislative changes to the Student-Focused Funding model. These changes can result in greater equity in per-pupil funding across Ontario (per-capita funding) and provide greater flexibility in resource allocation to schools/boards (general funds block grants). The estimated financial impact of these changes could be an increase of \$232 MM in funding allocation to savings of \$228 MM through block grant simplification and equalization.²⁷

Table 9: Block Grant Consolidation Allocation and Impact Estimates

	Old Formula	All Districts At Average	Difference	Districts At or Below Average	Difference
Full Special Education Allocation	\$3,857,078,856	\$4,089,478,083	+\$232,399,228	\$3,670,816,372	-\$186,262,483
58 Percent of Special Education Allocation	\$3,302,275,839	\$3,294,970,377	-\$7,305,462	\$3,074,506,092	-\$227,769,747

Source: Estimates derived from data from 1999-00 Total Operating Allocation Per Pupil 1999-00 Financial Statements

Table 9 illustrates the different ways in which the average funding for the specified grants were calculated and subsequently applied.²⁸ If all Special Education Grant funding is used to calculate the average grant and that average grant was provided to all districts, the province would allocate an additional \$232 MM in funding. If 58 percent of Special Education Grant funding is

²⁷ Calculated trim mean for each grant using 1999/00 data (by eliminating approximately 10% from top and bottom) from the sorted distribution and recalculated the mean. Combined trim means for above grants and added Early Learning Grant funding per pupil into a single grant number and compared to actual allocated district amounts. The lower estimate of savings is if the calculated average grant were applied to all boards. The upper estimate of savings is if actual district allocations were lower than the mean, then the district would retain its actual allocation; if the actual district allocations were above the mean, then the mean block grant was applied.

²⁸ Special education funding is separated into two major functions, SEPPA and ISA funding. The panel was not provided sufficient data to disaggregate the two functional amounts. Therefore, this first estimate utilized full special education funding in its calculation. Total ISA funding for 2000-01 amounted to 42 percent of all special education grant funding. Therefore, not accounting for actual district ISA funding, district per-pupil special education grant allocations were multiplied by 58 percent to estimate per-pupil SEPPA special education funding to districts.

used to calculate the average grant, to represent only SEPPA funding, and the average grant was provided to those districts whose per-pupil allocation for these grants was above the average, but all others retained their allocated per-pupil funding, the province would save nearly \$228 MM.

There is tremendous variance in some of the Special Purpose and Pupil Accommodation Grants that is not typically associated with the additional costs of providing educational services and by allocating funding from these specified grants in per-capita block grant form, that variance would be limited. Some variance in total funding would still exist among districts because of differences in costs due to student and school circumstances.

The Wyoming Cost-Based Block Grant, for example, allocates equalized funding to districts in per capita, block grant form to operate schools. Most funding is provided as general funds to provide the maximum flexibility to local educators in providing educational and support services. However, in cases of at-risk students and small and rural schools/boards, additional funding is provided to accommodate the differences in costs associated with these student and school circumstances leading to some variance in expenditure levels between districts. However, this type of circumstantial funding is still provided as general funds to be used by local educators as they best determine.

Continuing Education

Funding to boards through the Continuing Education Grant provides adults a variety of options for study, including adult day schools, night courses, and, at some school boards, correspondence courses.²⁹ The Continuing Education Grant also includes funding for International (Heritage) Language programs for elementary school students. Teaching of foreign languages in the regular education program can be considered a part of the regular education program for those students who choose to pursue a foreign language. However, the International Languages program is usually provided outside of the regular school day and primarily benefits individual students and families.

Using public funding to run continuing education programs is not consistent with the core educational functions of schools, since many continuing education programs benefit an individual, rather than a large group. It is projected that \$138 MM will be spent on continuing education programs in 2001/02.

Recommendations and Analysis

To improve consistency across publicly funded educational programs, Ontario should eliminate the funding for adult day school, summer school, and correspondence/self-study programs, as well as international language studies for elementary school students. Eliminating public funding for these programs will reduce allocations by an estimated \$117.3 MM for

²⁹ <http://www.edu.gov.on.ca/eng/document/nr/01.05/fs8.html>.

2002/03 (85 percent of 2001/02 allocation levels, 15 percent will remain for non-adult education programming).

Responsibility for providing and funding these programs will be shifted to individuals that benefit from the service, such as community groups and private providers. General oversight of adult education programs transferred to Ministry of Training, Colleges and Universities from the Ministry of Education. General oversight of international languages programs transferred to Ministry of Citizenship, Culture, and Recreation from the Ministry of Education. The panel cannot provide estimates of Ministry of Education staff reductions or associated cost savings.

Transportation

The Transportation Grant supports transporting students from home to school, or from school to school.³⁰ The existing grant is based on historical costs, adjusted for increases in enrolment. The grant also covers the full cost of transporting students to Provincial Schools.

The Ontario government is encouraging school boards to make their transportation services more efficient by developing partnership approaches. It is also encouraging the use of computer technology, which provides geographically coded student data for transportation planning as another tool to generate improved service delivery. In 2000/01, 11 boards in five areas of the province have been pilot testing the new transportation funding approach. The results of these pilots are being evaluated.

It is estimated that \$581 MM is allocated to transportation for 2001/02. This amount has been calculated using a formula based on historical expenditure patterns adjusted for enrolment growth or decline, rather than being calculated on the basis of need.

Recommendations and Analysis

The Ministry of Education should develop a new transportation grant funding formula based on geographic information system (GIS) technology using privately developed software (this data should then be included in the newly developed information system). This formula should be phased-in over a one-year period for capital and contractual adjustments. Local boards/schools should be notified of the new funding amounts at the beginning of 2002/03, but given allocations using the “old formula” for the 1st semester. The “new formula” funding will begin in the 2nd semester of 2002/03.

The Ministry of Education should not move forward with the plan to loan \$7 MM to the school boards to purchase software from approved vendors. Instead, the ministry should enter into performance-based contracts with the software vendors, where payment is contingent upon savings realization.

³⁰ <http://www.edu.gov.on.ca/eng/document/nr/01.05/fs9.html>.

The result of such a change is that transportation funding will now be allocated according to need. As well, under such a system there is incentive to form collaborative arrangements and pursue the P3s to reduce costs and maximize service. It is estimated that savings of \$58.1 to \$87.15 MM will be realized when fully implemented in 2003/04, before software vendor payment and district personnel training are taken into account.³¹

The Government will be responsible for administering funds according to school/board need, as well as maintaining the provincial information system related to transportation. The Government will also serve as a primary agent for performance-based contract negotiations.

School Facilities

For 2001/02, \$316 MM is allocated to 50 school boards for new pupil places. Standard procurement involves board and Ministry design, construction, and financing of debt over 25 years.

Recommendations and Analysis

The Province of Ontario should pursue public-private partnerships (P3) for facilities design and construction, similar to the Abbotsford School Board in British Columbia (25-50 percent of new construction projects). This will require legislative changes to allow New Pupil Places Grant funding to be used for lease payments if required by P3 arrangements. Public-private partnerships will result in total costs that are 10 percent less (estimated) than with conventional procurement, amounting to approximately \$8-\$16 MM in annual savings. In the case of Abbotsford, the school was constructed and ready for use within 12 months, within standard building specifications.

Government will be responsible for setting minimum building standards for school facilities across the province. School boards will serve as the primary agents in P3 agreements determining specifics such as desired building standards and design, lease-use arrangements, and/or facilities acquisition. The private developers will be responsible for the financing and construction according to the P3 contracts.

Pupil Assessment and Reporting

The Education Quality and Accountability Office (EQAO) was established by the Ontario government in 1996 to evaluate the quality and effectiveness of elementary and secondary school education.³²

³¹ Estimations of 10-15 percent savings are based on pilot districts and those districts studied by the Provincial Auditor using technology-based routing and scheduling software and P3 arrangements.

³² http://www.eqao.com/eqao/home_page/01e/1_2e.html.

The EQAO:

- Designs and implements a comprehensive program of student assessment within government-established parameters
- Advises the Minister of Education on assessment policy
- Develops and implements a provincial education quality Indicators program (EQUIP)
- Leads Ontario's participation in national and international assessment
- Promotes research in best practices in assessment and accountability
- Reports to the Minister, the public and the education community on assessment and education issues and makes recommendations for improvement

Provincial student assessments are performed at grades 3, 6, 9, and 10. This periodic assessment is inadequate for a performance-driven education system. Accountability, autonomy, efficiency, and effectiveness are compromised at the school, board, and provincial levels so long as the publicly funded education system's added value remains a mystery. Without annual assessments, educators across the province are unable to gauge the performance, and more importantly, the progress of students from year to year and to appropriately diagnose pupils for intervention.

Recommendations and Analysis

Building on the existing standards-based assessment tools used by the province, Ontario should pursue a P3 for design, development, administration, and scoring of annual assessment tools – aligned to provincial curriculum standards – for grades 3 through 10. This comprehensive set of assessment tools should provide educators, parents, and the public value-added measurements from one year to the next. This type of comprehensive assessment system is critical to developing a comprehensive accountability system in the province.

The Government should develop performance-based P3 contracts to cover administration and scoring responsibilities to hold providers accountable for accuracy and timing. Performance-based conditions can also be utilized during the design and development phases of the contract as well in order to hold providers to timetable expectations. The design and development should be done in collaboration with the Education Quality and Accountability Office (EQAO).

The new curriculum-aligned assessments would be first administered in 2005/06. As an interim measure, the province should utilize an off-the-shelf assessment tool for grades 3 through 10 – an assessment tool that closely aligns to the curriculum standards and provides absolute

(criterion-referenced) and/or comparative (norm-referenced) performance results by student, classroom, school, district, and province.

A preliminary estimate of costs associated with design and development are \$30 MM over the course of two years. The anticipated annual costs of administration and scoring are \$15 MM. The anticipated cost of using an off-the-shelf assessment tool as an interim step would cost approximately \$20 MM annually.³³

The model and cost estimates for this type of assessment system comes two highly regarded systems from the United States – the Florida Comprehensive Assessment Tool (FCAT) and the Texas Assessment of Academic Skills (TAAS).

Information Services

The present data collection, management, analysis, and reporting system are inadequate. It is therefore difficult for the schools, districts, and province to use the available data to act autonomously and with efficiency. In addition, the data necessary to diagnose and develop programmatic alternatives is lacking.

Recommendations

To overcome the problems mentioned above, the province should develop and implement a new student-level information management system/education database. This new student-level information system should be developed and implemented through field tests in 2002/03. Full implementation of this system with full reporting, collection, management, and reporting capabilities should be completed in 2003/04.

The province would be wise to consult with the Texas and Florida state governments to determine desired data to be collected, collections methods, system (hardware/software) requirements, security and confidentiality methods, training requirements, and reporting capabilities, and acceptable use of the data. Based on estimates from the Texas Public Education Information Management System (PEIMS), the system will initially cost an estimated \$8 MM, which will cover hardware (district compatibility and mainframe computer), Web-based software for data collection from districts, and database management software for processing and report generation, and local district training. An additional \$4 MM is necessary for annual maintenance and enhancements³⁴. Development, maintenance, and updating of PEIMS are done through a public-private partnership.³⁵

³³ Estimates from state of Florida internal development. Utilizing P3 agreements for this activity, particularly with performance-based provisions, may vary the costs from those estimated.

³⁴ Estimates based on design and development of Texas Public Education Information Management System (PEIMS).

³⁵ See Appendix D for brief description of PEIMS.

The new system will make information available to assist the province, schools, and school boards with policy and programmatic changes (e.g., transportation and special education funding). The student-level information system will include ethnic and socioeconomic status indicators of students to assist in the disaggregation of student and school performance to determine program effectiveness. The new information system will also provide parents with school and programmatic performance.

After the development of the system, the Province of Ontario will be responsible for contracts with system developers, including the procurement, development, maintenance, revision and enhancement, and training of the system. The province will also serve as the facilitator between the transportation and student-level information systems developers to ensure compatibility and usability.

Special Education

There is an estimated \$1.37 Bn allocated to special education for 2001/02. This funding is given to the districts in a restricted envelope and must be held in a special education reserve account.³⁶ Since this money can only be used to fund special education programs, the districts' ability to intervene and serve their students in the most appropriate manner is limited.

In addition to the restrictive funding, there are a number of non-fiscal issues with special education programming:

- System performance is measured using regulations compliance rather than student outcomes and results.
- The provincial auditor results also show an unacceptably high proportion of incomplete and unaccomplished individual education plans (IEPs).³⁷
- There are few alternatives for parents to pursue appropriate special education services.
- \$571 MM of the nearly \$1.37 Bn 2000/01 budget was for Intensive Support Amounts (ISAs) for eligible students. The funding of ISAs to the districts is heavily dependent upon administrative procedures for Ministry-approved classification and expenditures.

Recommendations and Analysis

To enhance flexibility and consumer choice in special education, the government should institute a number of changes. Firstly, Ontario should provide additional flexibility in expenditures for special education grant funding beyond allowable 2001/02 marginal increases. This can be achieved by granting unrestricted money to the program. Limiting this flexibility to

³⁶ See Appendix C for a more detailed look at the way the Special Education Grant funding is generated and allocated.

³⁷ 2001 Annual Report of the Provincial Auditor of Ontario, p.129.

SEPPA funding is provided for in the School-Based Funding and Budgeting recommendation. Legislative changes will have to be made to allow special education grants to be used as deemed necessary by the school. Deregulation should be implemented in 2002/03. The concept that funding flexibility is essential to early intervention strategy development is based on evidence from “Neverstreaming” intervention/prevention delivery model in Elk Grove Unified School District (California).³⁸

Schools and boards should pursue P3s with private providers of special education services. As a fiscal incentive for schools and boards that pursue contracts with non-public schools and private providers of special education services, schools and boards should be able to retain cost savings determined through the contract. Allowing for P3 arrangements for special education services holds the private providers accountable for administrative requirements and student results.

Further, students and parents of special education children with designated individual education plans (IEPs) should be given the flexibility to choose their own school. The Government should assume responsibility for ensuring that participating private schools meet basic standards.

Finally, providing special education opportunity scholarships that allow students to attend the school of their choice will increase consumer choice and flexibility, since the funding will follow the student. Scholarships should be equal to the average school board expenditure for a determined disability. Legislative changes will need to occur to create these scholarships. Special education scholarships such as these are used in Florida as the “McKay Scholarships for Students with Disabilities Program,” and in Alberta as well.

Although no initial cost savings are anticipated from the above recommendations, these changes will result in greater consumer choice because educators and parents will be given the opportunity to choose from different special education providers. In addition, because the funding is no longer following the school, and is instead following the student through the use of scholarships, there is a movement towards a results-based system, which results in greater accountability.

Employment Relations

The Labour Relations Act, 1995 governs both the process by which a trade union acquires bargaining rights and the procedures by which trade unions and employers engage in collective bargaining; the Act applies primarily to workplaces in the private sector, but also applies to certain parts of the public sector (municipal workers, hospital employees, school

³⁸ “Collaborative Challenge: Teamwork key to special education success,” Cary Rodda, Association of California School Administrators (ASCA), December 13, 1999, www.aca.org/publications/EDCAL/EDCAL_12_13_1999/teamwork.html.

boards, Ontario Hydro, etc.) with some modifications.³⁹ Currently, Ontario's 72 boards independently bargain with the local bargaining authorities (e.g., teachers unions, clerical, maintenance and operations).

However, the districts are completely dependent on the province for revenues, unsure of year-to-year changes in funding. At the same time, the districts must use this revenue to pay employees, often negotiating three- to five-year bargaining agreements with their employees. It is difficult for districts to budget accordingly and negotiate their expenses when they are unsure about the funding they will receive. Additionally, districts are given minimum flexibility in these negotiations, since the province determines the average class sizes.

Recommendations and Analysis

It is recommended that the Ministry of Education move to dual contract for employees. The province would be responsible for negotiating a core contract to establish a standard pay schedule and portable pensions and benefits for all teachers/employees across the province. The local boards and schools would then have the ability to bargain beyond the core contract according to their local conditions. The Value for Money Review education panel recommends that this dual contract system be implemented in 2003/04.⁴⁰

As well, steps should be taken to implement legislative changes that authorize provincial government, school boards, and schools as bargaining agents.

Although no initial cost savings are anticipated from the above recommendations, these changes will give the province, which is responsible for revenues, responsibility for contract negotiation as well, providing school boards and schools with greater flexibility to negotiate beyond the core contract.

Teacher and Administrator Credentialing and Oversight

A 50-60 percent turnover of school administrators is projected to occur in the next five years according to the Ontario Principals' Council.⁴¹ Additionally, there is a certified teacher shortage due in part to early retirement. The shortage is more pronounced in hard-to-teach subject areas such as mathematics, science, special education, and French language.⁴² The oversight of teachers, qualifications, and administration is divided between the Ontario College of Teachers and the Ministry of Education.

³⁹ <http://www.gov.on.ca:80/lab/lms/lmsfage.htm>.

⁴⁰ This type of bargaining arrangement is borrowed from the American Federation of Teachers (AFT), the second largest teacher union in the United States, and the Teacher Union Reform Network (TURN), also based in the United States.

⁴¹ Williams, Thomas R., "Unrecognized Exodus, Unaccepted Accountability: The Looming Shortage of Principals and Vice Principals in Ontario Public School Boards." Ontario Principals' Council, August, 2001.

⁴² Conversation with Ontario College of Teachers, December 6, 2001.

Recommendations and Analysis

To overcome the anticipated shortage in school administrators, the province should allow the Ontario Principals' Council to immediately begin development of alternative certification processes for school administrators to ensure appropriate staff levels. This should be followed by the required legislative changes authorizing OPC credentials for school administrators.

The Ministry of Education should also transfer responsibility for tracking and monitoring Letters of Permission teachers and emergency credentialed teachers to the College of Teachers by 2002/03. The College of Teachers should simultaneously begin developing alternative certification processes for teachers, particularly in hard-to-teach subject areas. Legislative changes will be required to authorize OCT alternative certification. Alternative certification strategies are currently employed in the Houston Independent School District, Texas, Edison Schools, and the University of Phoenix.

Although no initial cost savings are anticipated from the above recommendations, these processes will expand the pool of qualified individuals available to the schools and will guarantee the oversight of all teachers under one institution.

The government's role in this area is less than in others since much of the responsibility will be delegated to private institutions. The OPC and OCT will be given discretion to oversee the introduction and retention of qualified individuals into the schools.

Section 4: Conclusions

The panel's recommendations, especially those that result in cost savings, were determined to not disrupt the core educational mission of the publicly funded schools, present practical implementation schedules, and which cost savings can be realized immediately.

More important than the potential cost savings of these recommendations are the inherent structural changes that create a performance-driven publicly funded education system for Ontario. Though this panel did not set forth details of how the province should set student performance goals and subsequent accountability mechanisms for those goals, this panel has put forward the framework for the province to create ambitious performance standards that students and schools should attain. As a necessary prologue to that framework, this panel recommends the province implement a comprehensive pupil assessment and reporting system to measure absolute and year-to-year progress. Once in place, the province can set the goals that schools should attain. A comprehensive student-level information system will enhance the ability of schools, boards, the province, and parents to determine program performance.

Schools, as the accountable unit of service provision, will be provided the funding (money) through school-based funding and budgeting and the necessary flexibility (methods) with that funding through block granting to employ (mobilization) the best resources available towards provincial standards.

As the province moves away from a command-and-control system of rules and regulations and towards a system driven by performance, greater flexibility within the system will be attained through new employment relations structures, new teacher and administrator credentialing requirements, choice and accountability for special education services, and transportation and facilities funding that encourages efficiency and cost-effectiveness.

While none of these initiatives, by themselves, are a panacea of education reform, these reforms, together, move Ontario publicly funded education away from a 19th Century model of service provision to a model that other states, provinces, and nations will emulate.

Section 5: Team Members

Three individuals were involved in the Value for Money Review education panel, with additional input from other experts. These members and their qualifications are listed below:

Dr. James W. Guthrie

Dr. Guthrie is the founder of Management Analysis & Planning, Inc., and now serves as the Chairman of the Board for the organization. He has been a professor of public policy and education for more than twenty-five years at the University of California, Berkeley. He now

serves as Chair of the Department of Leadership, Policy and Organizations at Vanderbilt University. He specializes in education finance and resource allocation matters in education.

Dr. Stephen B. Lawton

Professor of Educational Leadership and Doctoral Program Coordinator at Northern Arizona University, Dr. Lawton is a member of the Arizona Senate Committee on Education Funding Formulas and has published and consulted on education finance in Canada and the United States. Formerly on faculty at The Ontario Institute for Education, University of Toronto, he chaired its Department of Educational Administration and served twice as a director of the American Education Finance Association.

Richard C. Seder

Mr. Seder is a senior consulting associate with Management Analysis & Planning, Inc. He specializes in education policy and analysis, with an emphasis on accountability, efficiency, and data reporting systems. He headed the education policy arm of Reason Public Policy Institute, a US-based think tank, and assisted in the development of the comparative analysis methodology for the School Evaluation Services division at Standard & Poor's.

Appendix A: Equity Statistics

Table A: Basic Statistics from Student-Focused Funding Allocations, All Districts

	Foundation Grant	Total Allocation
Minimum	\$3,367.00	\$5,443.82
Maximum	\$3,634.65	\$10,028.00
Average (weighted)	\$3,564.98	\$6,242.67
Average (unweighted)	\$3,551.65	\$6,641.74
Standard Deviation (unweighted)	\$49.57	\$1,039.67

Source: Total Allocation Per Pupil, Total Operating Allocation Per Pupil, 1999-00 Financial Statements

Table B: Basic Equity Statistics from Student-Focused Funding Allocations, All Districts

	Statistic	Value	Accepted Standard
Foundation Grant	Coefficient of Variation	0.0139	Less than 0.10
	McLoone Index	0.9877	Greater than 0.95
	Verstegen Index	1.0058	Close to 1.00
Total Allocation	Coefficient of Variation	0.1665	Less than 0.10
	McLoone Index	0.9452	Greater than 0.95
	Verstegen Index	1.1835	Close to 1.00

Source: Total Allocation Per Pupil, Total Operating Allocation Per Pupil, 1999-00 Financial Statements

Table C: Basic Statistics from Student-Focused Funding Allocations, English Public Districts

	Foundation Grant	Total Allocation
Minimum	\$3,557.37	\$5,673.94
Maximum	\$3,634.65	\$8,273.39
Average (unweighted)	\$3,581.66	\$6,389.76
Standard Deviation (unweighted)	\$17.47	\$706.36

Source: Total Allocation Per Pupil, Total Operating Allocation Per Pupil, 1999-00 Financial Statements

Table D: Basic Equity Statistics from Student-Focused Funding Allocations, English Public Districts

	Statistic	Value	Accepted Standard
Foundation Grant	Coefficient of Variation	0.0049	Less than 0.10
	McLoone Index	0.9965	Greater than 0.95
	Verstegen Index	1.0041	Close to 1.00
Total Allocation	Coefficient of Variation	0.1105	Less than 0.10
	McLoone Index	0.9584	Greater than 0.95
	Verstegen Index	1.1211	Close to 1.00

Source: Total Allocation Per Pupil, Total Operating Allocation Per Pupil, 1999-00 Financial Statements

Table E: Basic Statistics from Student-Focused Funding Allocations, English Catholic Districts

	Foundation Grant	Total Allocation
Minimum	\$3,367.00	\$5,443.82
Maximum	\$3,574.66	\$8,691.65
Average (unweighted)	\$3,524.76	\$6,322.17
Standard Deviation (unweighted)	\$51.84	\$764.20

Source: Total Allocation Per Pupil, Total Operating Allocation Per Pupil, 1999-00 Financial Statements

Table F: Basic Equity Statistics from Student-Focused Funding Allocations, English Catholic Districts

	Statistic	Value	Accepted Standard
Foundation Grant	Coefficient of Variation	0.0147	Less than 0.10
	McLoone Index	0.9870	Greater than 0.95
	Verstegen Index	1.0047	Close to 1.00
Total Allocation	Coefficient of Variation	0.1209	Less than 0.10
	McLoone Index	0.9432	Greater than 0.95
	Verstegen Index	1.1293	Close to 1.00

Source: Total Allocation Per Pupil, Total Operating Allocation Per Pupil, 1999-00 Financial Statements

Table G: Basic Statistics from Student-Focused Funding Allocations, French Districts

	Foundation Grant	Total Allocation
Minimum	\$3,427.75	\$6,628.88
Maximum	\$3,638.34	\$10,069.56
Average (unweighted)	\$3,539.14	\$8,064.98
Standard Deviation (unweighted)	\$59.75	\$1,213.11

Source: Total Allocation Per Pupil, Total Operating Allocation Per Pupil, 1999-00 Financial Statements

Table H: Basic Equity Statistics from Student-Focused Funding Allocations, French Districts

	Statistic	Value	Accepted Standard
Foundation Grant	Coefficient of Variation	0.0169	Less than 0.10
	McLoone Index	0.9875	Greater than 0.95
	Verstegen Index	1.0122	Close to 1.00
Total Allocation	Coefficient of Variation	0.1504	Less than 0.10
	McLoone Index	0.9353	Greater than 0.95
	Verstegen Index	1.1672	Close to 1.00

Source: Total Allocation Per Pupil, Total Operating Allocation Per Pupil, 1999-00 Financial Statements

Appendix B: School-Based Funding and Budgeting Implementation Guidelines

School-based funding and budgeting (SBFB) refers to 1) the allocation of maintenance and operations and possibly capital grants to school corporations and 2) the budgeting and expenditure of these funds by these schools. SBFB enhances the ability of school authorities to allocate funds in a manner that will promote improved performance by the school in terms of criteria set forth by the province, school board, and school council. SBFB requires the designation of a number of items, including: the amount of funds to be allocated to the school, the legal authority of the school council to budget and expend funds, the persons or organizations that will maintain funds and accounting records, the specific budget model to be used to ensure commonality and accountability, and the oversight roles of senior authorities in school districts and the province.

ACCOUNTABILITY AND BUDGETS

Legal Authority and Oversight

The school council for each publicly funded school, or group of schools (if agreed to by their respective school councils), would act as a non-profit corporation for receipt of block grants. Each school council would operate according to a standard set of bylaws adopted by the province and be subject to provincial regulations, including oversight by the district school board within which the school is located. The council would be responsible for selecting a principal and a bursar for the school, who would serve as executive officer and treasurer/secretary to the council, respectively. All staff hired by councils from candidates approved by the district school board would be district employees; those not approved by the board would be school employees. Districts would not be allowed to restrict the candidates selected by school councils nor be allowed to enter into contracts with third parties that would restrict persons who school councils could hire.

The school council would be responsible, with the assistance of the principal and bursar, for preparing an academic plan for the school. On an annual basis, a budget would be set and approved by the council to implement this plan. The plan and budget would be filed with the local district school board, which would have oversight responsibilities for fiscal, personnel, and academic matters (i.e., auditing of books, verification of personnel qualifications, and review of student performance information).

Financial Records

Efficiency and standardization would be served by the award of a contract for the provision of accounting services to all publicly financed schools by a single provincial entity, such as a bank or trust company. Provincial authorities could then transfer funds to this entity

for the school accounts. The contractor would be responsible for providing a contemporary, web-based data entry, ordering and payment system to minimize the burden upon school bursars and staff. If the scope of the enterprise is deemed too great, more than one provider could be selected.

Budget Framework

A standard budget framework would categorize all budgeted items according to function and economic classification. Function would include, at least, instruction, instructional support, operations, leadership, and other. Each of these functional categories would be further divided into program (e.g., general, special education, etc.) and grade level. Economic classifications would include salaries and benefits, supplies and equipment, utilities and communication, etc.

Each school budget would include, but not be limited to, the following: school-level salaries for teaching, teacher aides, supply teachers, administration, support services, cleaning and routine building maintenance, benefits (excluding pensions), transportation for field trips, professional development and study leaves, utilities, consulting, psychological and social services, supplies and materials for administration and instruction, equipment repair and replacement, textbooks and library books.

New Schools

SBFB funding would be attractive to proposals for alternative schools if regulations similar to those historically associated with separate school districts were adopted; i.e., the notion that a school could be formed whenever a sufficient number of children were in agreement (e.g., 25 pupils).

IMPLEMENTATION

Other jurisdictions that have adopted SBFB models have used timeframes of three to five years. Implementation begins six to twelve months of preparation before the initial set of schools begins the transition. During this preparation period the budget framework, accounting agency, and training programs are developed. Pilot programs, however, are to be avoided in that they imply tentativeness and encourage a “wait-and-see” attitude. Training of school council members, principals and bursars is critical. The firm or firms selected by the province to maintain financial records would be expected to train bursars as part of its contract; other agencies (e.g., principals’ associations, school board associations, etc.) could be responsible for training council members and principals.

Employment contracts for staff would not be immediately affected: although assigned to and paid by the individual school, they would remain board employees. As councils developed academic plans and budgets, they might find in some cases that they would employ non-board personnel for vacancies created by the reallocation of resources.

Appendix C: Special Education Funding

The Ministry of Education, in 2001/02, provides special education funds in one envelope.⁴³ Funding is generated in two ways:

Special Education Per Pupil Amount (SEPPA) funding is based on a school board's enrolment (counting all students, not just students who have been identified as needing a special education program). This funding is for special education programs and services that address the full range of exceptionalities. The May 2000 Budget announced that SEPPA funding would increase to \$500 per student in Junior Kindergarten to Grade 3, \$376 per student in Grades 4 to 8, and \$243 per secondary student. This increase provides additional funding to help in the early identification of learning problems and other exceptionalities.

Intensive Support Amount (ISA) funding is provided for students who require high-cost specialized equipment, programs and classroom supports. School boards apply for this funding by showing specific students' needs and their Individual Education Plans (IEPs). As a transitional measure in 2001/02, no board will receive less ISA funding than it received in 2000/01. Over the course of school year 2001/02, boards will complete a comprehensive review of ISA files to ensure that funding accurately reflects each board's share of high needs students.

This approach to special education funding provides special education students and their parents with access to education programs that meet students' identified needs.

Boards must spend this funding only on programs and supports for students with special needs, up to the level of funding provided in 2000/01. Boards can allocate additional funding to special education if this is a local priority.

⁴³ <http://www.edu.gov.on.ca/eng/document/nr/01.05/fs2.html>.

Appendix D: Texas Information System Framework

In compliance with the Texas Education Code, the Public Education Information Management System (PEIMS) contains only the data necessary for the legislature and the Texas Education Agency (TEA) to perform their legally authorized functions in overseeing public education. It does not contain any information relating to instructional method, except as required by federal law.

PEIMS encompasses all data requested and received by TEA about public education, including student demographic and academic performance, personnel, financial, and organizational information. * PEIMS is classified into two broad categories:

- A. Data collected through the PEIMS electronic collection method, utilizing:
 - 1. A standard set of definitions, codes, formats, procedures and dates for the collection of data (Data Standards),
 - 2. Standard edit procedures,
 - 3. An established database design,
 - 4. A production system for formatting and loading data into TEA's enterprise database, and
 - 5. Written documentation describing the numeric and alphanumeric values stored in the database (Data Documentation).

- B. Any other collections, calculations, and analyses of data used for evaluating, monitoring, or auditing public education (such as state assessment, federal funding, and Foundation School Program data).

* Final Version recommended by the Policy Committee on Public Education Information (PCPEI) at their March 18, 1996 meeting, and subsequently adopted by the agency.

For the PEIMS electronic collection, school districts submit their data via standardized computer files, as defined by the PEIMS Data Standards.

Technical support for gathering the data from district databases is supplied by one of the twenty educational service centers (ESCs) or by private vendors. A software system of standard edits, to enhance the quality of data, is used by ESCs and again by the agency on district data submissions. Currently, the major categories of data collected are: organization data; budget data; actual financial data; staff data; student demographic, program participation and prior year school level data; student attendance, course completion and discipline data.

Other collections used for evaluating, monitoring, or auditing public education use both automated and non-automated methodologies. Current efforts are being focused on integrating systems and developing an agency-wide "information architecture," which will include a

repository of information requirements, each cross-referenced to their implementation in systems and reports. This framework will enable TEA to better anticipate and manage impact of changing legislation, rules, and other requirements on major systems, including PEIMS.