Department of Education Childhook Development of Ch

FINAL DRAFT

**■ Ernst & Young** 

Quality In Everything We Do



Ernst & Young LLP Chartered Accountants Red Rose Tea Building, 5th Floor 12 Smythe Street Saint John, NB E2L 5G5 Tel: 506 634 2129 5

09 May 2013

Gerald Richard, Sous-ministre and John McLaughlin, Deputy Minister New Brunswick Department of Education and Early Childhood Learning Place 2000 P. O. Box 6000 Fredericton, NB E3B 5H1

Dear Sirs,

We have completed our engagement in support of the Program and Process Optimization Opportunity Diagnostic. Our engagement was performed in accordance with our engagement agreement dated 08 February 2013 and our procedures were limited to those described in that agreement.

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#### Results of our work

During the period between January and March 2013 Ernst & Young supported the New Brunswick Department of Education and Early Childhood Development to deliver a project to perform a Diagnostic of Program and Process Optimization Opportunities. Our final work products can be found attached.

It was our pleasure to work with the New Brunswick Department of Education and Early Childhood Development on this critical initiative.

#### Scope of our work

As outlined in our engagement agreement, we assisted you in performing a high-level diagnostic to identify process optimization, cost reduction, and revenue enhancement opportunities associated with the program and services delivered by the Department.

#### Restrictions on the use of our work product

Our work products are intended solely for the information and use of the New Brunswick Department of Education and Early Childhood Education. They are not intended to be and should not be used by anyone other than these specified parties without written consent from Ernst & Young, which will not be reasonably withheld.

We greatly appreciated the opportunity to work with you, the Sponsors and the employees of the New Brunswick Department of Education and Early Childhood Education throughout this important project. We look forward to working with you again in the future to help you meet your goals.

All the best,

Claude Francoeur, CA, CISA

Jim Lutes, CA

Partner

Atlantic Managing Partner

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NB DEECD – Program Opportunity Diagnostic CONFIDENTIAL – ADVICE FOR THE MINISTER



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## 1. Executive Briefing Note



## This report summary identifies a program of opportunities that have a potential value of ~\$192-\$416M from F14-F18

## Background and objectives of diagnostic

Given the current fiscal pressures facing the Government and population of New Brunswick, the Department of Education and Early Childhood Development (DEECD) was mandated to identify efficiencies and cost reduction opportunities across the organization.

Ernst & Young was engaged to conduct a rapid diagnostic across the organization to identify and assess potential opportunities for cost reduction.

## Cost savings opportunities

We found that overall the infrastructure and resource base is not being adjusted to keep pace with the decline in student enrolment. Changes arising from the current inclusion strategy is also creating opportunities and associated cost pressures. These account for approximately **65%** of the opportunities identified. With these as major themes, the project identified a total of 23 potential initiatives, of which 13 were evaluated for savings opportunities. In summary, these opportunities address the following areas:

- ▶ Optimizing teaching and support positions
- ▶ Driving efficiency in pupil transportation and infrastructure costs
- ▶ Improving Early Childhood Funding and controls
- ► Consolidation of back-office activity
- ▶ Increasing IT service delivery efficiencies

The 13 initiatives are estimated to provide an average of **\$89M of annual savings** once fully implemented and will have the following impact on DEECD's net expenditure:

13 evaluated initiatives	LOW	HIGH
Value in F14	\$14.2M	\$22.7M
Value in F14 - F18 (NPV)	\$191.6M	\$416.1M

Four of the initiatives were identified by the Department Executive as having a high priority for moving forward this year. We recommend full implementation of these initiatives, which may save from 11.3.1M to \$16.1M in F14. They are:

- ▶ Optimizing the number of teaching positions
- ► Consolidating and optimizing procurement
- ► Improving Daycare funding and service delivery controls
- ▶ Improving Autism funding and service delivery controls



## Report summary (continued)

### Other recommendations

In addition, the qualitative input and analysis identified a number of areas to enhance organizational performance. As a result we recommend the following:

- ▶ Provide short-term support to the Districts to complete the issues outstanding from the recent amalgamation and address the resource challenges through improvement initiatives
- ▶ Immediately establish and commit to long-term educational priorities and strategies
- ▶ Address the complexity and misalignments within the Governance structure and related roles and authorities between the Districts and the Department
- ▶ Increase the collaboration and information exchange between the central Department, Sectors and the Districts
- ▶ Accelerate planning and budgeting processes and establish strong spending accountabilities and controls
- ▶ Improve information systems and access for decision making, assessment and improvement
- ► Create an environment of trust through delegation, and accountability for results supported by strong performance and project management structures

## Next steps

We recommend a number of next steps prior to launching on a full path of change. They are as follows:

- ▶ Conduct a strategic alignment and initiative prioritization session with key leaders across the organization
- ▶ Develop a strategy to create capacity by reinvesting some of the savings into long- term opportunities
- ► Establish a formal organization-wide project management structure and processes, assign dedicated resources and leverage external resources to realize benefits
- ▶ Prepare for and launch "quick-start" and full program of opportunities

### Limitations of the review

There were a number of limitations that were encountered during our review that could impact the results of the diagnostic. They are as follows:

- ▶ The time-frame of the diagnostic was limited to 8 weeks and prevented full analysis of the full scope of opportunities across the organization
- ▶ Data collection and validation took longer than expected and the quality and availability or the data may create some inaccuracies
- ▶ Even among Canadian jurisdictions, it was challenging to obtain a clear understanding of the data components when making cross jurisdictional comparisons



# Six major themes for improvement were identified through discussions with DEECD staff and guided the opportunities and implementation recommendations

Interviews and workshops were held with the Executive and Directors at the Department and 13 functional workshops were held with representatives from across the Districts and the Department. The purpose was to gather context for the review, identify "pain-points" and opportunities for improvement, and understand conditions for success. The input informed our recommendations, change management activities and high level implementation plans. These areas must be addressed to improve the effectiveness of the organization and build capability to sustain improvements into the future.

Key Improvement opportunities	Operational Efficiency	Service Delivery
Strengthen and clarify governance structure, planning processes and roles	x	
Enhance central Department / District working relationships and structures	x	x
Improve systems and information access and use of information	x	X
Stabilize and support the Districts through improvements, and policy and process standardization following the recent amalgamations	x	
Minimize political and public environment influence and changes	x	x
Improve trust, performance and accountability to drive results	X	х



## Opportunities assessed could result in F14 net savings of \$14.2M - \$22.7M. High priority opportunities selected may result in \$11.3M -

Wave	Pr	ioritized initiatives	Ongoing FTEs Savings*	Ongoing Savings (\$M)	F13/14 Net Expenditure Reduction (\$M)	F13/14-F17/18 NPV of Net Expenditure Reduction (\$M)
	1	Optimize teaching positions	545	33.2	8.7 – 10.9	77.8 – 203.7
Wave 1	4	Consolidate purchases	N/A	3.3	0.6 – 1.1	7.8 – 16.0
wave	5	Daycare funding and service delivery controls	N/A	1.5	0.9 – 2.0	4.3 – 8.8
	6	Autism funding and service delivery controls	N/A	1.6	1.1 – 2.1	4.3 – 8.8
	2	Privatize pupil transportation services	N/A	9.5	0 - 0	22.0 – 27.0
	3	Optimize bus usage	N/A	7.5	0 – 0	13.8– 19.6
	7	Rationalize library services	85	1.5	0 – 1.0	3.9 – 8.7
Wave 2	10	Shared payroll and benefits	15	0.7	0.0 - 0.4	0.9 – 4.7
	11	Alternative delivery of custodial services	N/A	7	0 – 0	7.0 – 23.0
	12	IT efficiency	N/A	2.3	0.4 – 0.8	5.3 – 10.7
	13	Shared finance organization	13	0.7	0 – 0	1.5 – 4.1
Wave 3	8	Optimize the use of Education Assistants	259	5.9	2.6 – 4.4	17.9 – 30.8
vvave s	9	Rationalize and optimize school infrastructure	116	14.3	0 – 0	25.1 – 50.2
	ТО	TAL	1,033	89.0	14.2 – 22.7	191.6 – 416.1

\*Note: Opportunities that outsourced internal resources were not counted as FTE reductions.

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# A further 10 opportunities were identified in order to improve organizational capability and capture additional savings – financial, data and project management capability are critical in the long term.

	High priority Considerations for the future	
lde	ntified initiatives	Area
Enab	ling opportunities	
14	Simplify budgeting, reporting and control process	Finance
15	Optimize statistics and data quality and assurance systems	ΙΤ
16	Establish a program and project management methodology and discipline	Strategic
Un-as	ssessed opportunities for future consideration	
17	Alternative payroll and benefits delivery	Payroll
18	Improve absenteeism that increases the use of casual workers	School Staffing
19	Reduce the administrative time required to communicate, obtain replacements and record absenteeism	School Staffing
20	Alternative delivery of maintenance services and optimize based upon facilities usage	Facilities
21	Reduce the level of light vehicle fleet vehicle costs (maintenance, capital, operating costs)	Transportation
22	Evaluate funding of extra-curricular travel	Transportation
23	Investigate further consolidation of the Districts	District Structure



## Proposed next steps include aligning leadership, rationalizing and planning initiatives, and designing and rolling out changes

## Conduct strategic and governance alignment and prioritization sessions

- Senior level discussions on vision, critical gaps, goals and program of initiatives to pursue from internal, external and enabling opportunities
- Hold senior level discussion with Minister, DEC's and Part 1 & 2 leaders to clarify roles, authorities and protocols
- Roll-out results of and cascade into the rest of the organization

## Establish Departmental-level program and project management organization

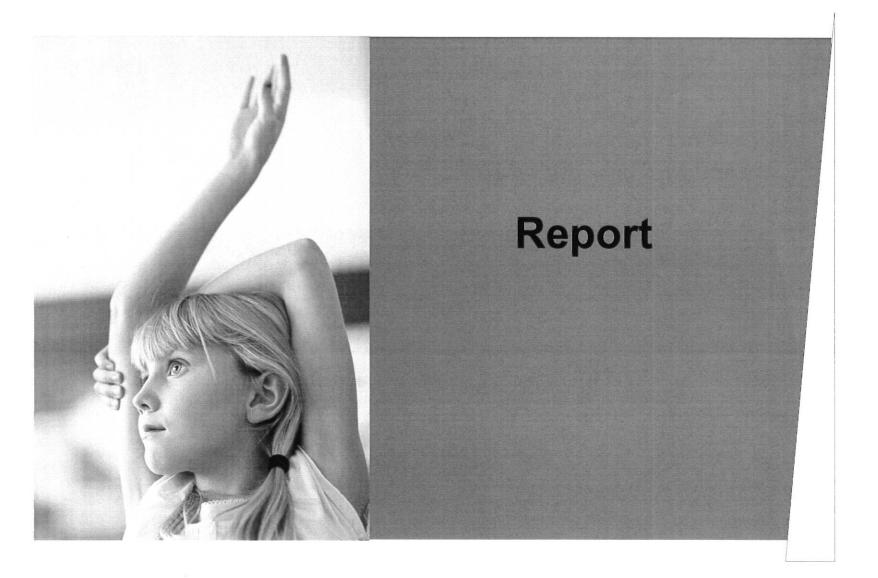
- Develop project-based competencies and focus
- Establish and monitor project priorities, resourcing and work plans (see Appendix for sample work plan)
- Develop and implement change management strategies and plans

## Prepare for and launch "quick-start" and full program of opportunities

- Assess and stabilize recent changes to District amalgamations
- Plan and prepare to launch and communicate initiatives
- Design and launch the opportunities according to established program plans
- Update program based on effectiveness and changing circumstances

<sup>\*</sup> The wave I, wave II and wave III distinction made by the Steering Committee using the co-developed framework should be considered as initial guidance only – detailed design projects in combination with strategic guidance as to DEECD's target savings and appetite for change will be needed to determine an optimum and carefully considered launch sequence





## 2.1 Objectives and context

## The Department is under pressure to reduce costs, and the Districts are still stabilizing from recent amalgamation

#### **Key priorities**

Key priorities for the DEECD include:

- ▶ Providing all children the opportunity to fully participate in their learning through the inclusion program
- ► Improving the education and early childhood development system
- Continuing to focus resources with the greatest impact for student success

In support of the Province-wide objective to manage the fiscal situation the DEECD has been mandated by the province to find opportunities for cost efficiencies of at least \$31.9M in fiscal year 2013-14

The Department has started to pursue a number of cost reduction initiatives towards their overall goal. This review was intended to identify \$10M of the overall cost reduction goal.

#### **District amalgamation**

In 2011-12, the DEECD underwent a significant process to improve the way programs and education services are delivered. This initiative involved extensive consultations with various stakeholders in the province.

The result of this process was a reorganization of the school Districts to a more streamlined structure and the integration of Early Childhood Development (ECD). The resulting structure includes 4 Districts in the Anglophone Sector and 3 Districts in the Francophone Sector.

The Districts are currently in the second year of the reorganization and our consultations with stakeholders indicated the need to support the Districts in the short-term to integrate the changes, address resource challenges and achieve the full benefits of the amalgamation. Some of the integration activities identified as work in progress include:

- ▶ Improving the alignment of goals between schools, Districts and the Department
- Amalgamating and standardizing policies, standards and processes among the merged Districts. A further requirement will be to align revised of District-level policies to Department policies
- Addressing resulting overlap in roles and responsibilities and reporting lines
- ► Resolving resource strain in administrative support positions such as Human Resources



## The objective of the review was to identify at least \$10M in potential savings opportunities for the fiscal year 2013-14

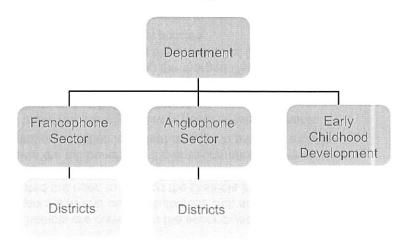
In light of the identified need to achieve an additional net reduction in expenditure of \$10M in F13-14, the DEECD initiated a rapid diagnostic review in February 2013 to evaluate the current functional and program cost baseline and identify potential process optimization and cost reduction opportunities. The approach for the review was to:

- Use a structured framework based on cost reduction levers, leading practices, and other factors
- Validate and prioritize identified process optimization and cost reduction opportunities
- Produce a high level change management strategy and identify key decisions to achieve opportunities

The opportunities have been prioritized based on the net financial benefit each could deliver to the DEECD, with consideration to the level of complexity to realize benefits and level of acceptability with various stakeholders.

In aggregate these opportunities appear to present a compelling case for change from a cost standpoint. The specific opportunities and corresponding initiatives can be found in the body of this report.

The DEECD provides services across three main operational areas and in 2011-12 had a budget of \$1B



The scope of our work spanned the Department and the three main operational areas (Francophone and Anglophone Sectors along with Early Childhood Development).

The Department is under pressure to reduce costs, while maintaining or enhancing the level of service and protecting the most important aspects of New Brunswick's education system.



## The project applied a highly collaborative and hypothesis-driven approach

The rapid timeframes and wide scope of the project resulted in the need to apply a focused, hypothesis-driven approach rather than conducting a wide, holistic review.

In addition, a collaborative approach was used that encouraged buy-in and knowledge transfer.

The approach is presented in the diagram to the right.



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### Collaborative four stage approach

- 1. Collect first round data and plan analysis
- The project approach and table of contents for the final report were validated with the Steering Committee
- Hypotheses were developed by the EY team based on experiences in other jurisdictions and interviews with DEECD stakeholders
- Data was collected by DEECD with <u>input and</u> guidance from EY
- Data was reviewed and validated with DEECD representatives
- The criteria for evaluating initiatives was <u>reviewed</u> with the Steering Committee

- 2. Analyze data & identify opportunities
- Analysis already conducted by DEECD was <u>transferred</u> to EY (e.g. School Infrastructure Review, Pupil Transportation Study)
- Hypotheses were tested through analysis of data, either through the application of external or internal benchmarking (e.g. contrast in performance between other government departments or districts.)
- Identified opportunities were <u>validated</u> with DEECD representatives and the Steering Committee

- 3. Short-list and diagnose opportunities
- The analysis led to the identification of 23 potential initiatives
- A work-shop was held with the Steering Committee to explore, validate and short-list identified opportunities
- 13 short-listed initiatives were presented and discussed with the Steering Committee, with the opportunity to refine the list
- More detailed business cases were developed for the 13 initiatives shortlisted

- 4. Prioritization of opportunities
- A prioritization work-shop was held with the Steering Committee during which the shortlisted opportunities were explored and prioritized
- The Steering Committee was provided with an opportunity to provide input into the final report

Additional frequent Steering Committee and Project Sponsor meetings held to validate findings and resolve issues

## Limitations of the review

### 1. Rapid Diagnostic

This Rapid Diagnostic was limited to 8 weeks, and a small engagement team.

The purpose of the engagement was to facilitate the generation of improvement ideas through workshops and data analysis. Subsequently, EY investigated those ideas to identify and quantify opportunities for improvements. EY screened and narrowed down the initial listing, with the Steering Committee, and conducted deeper analysis and business case development for the shortlisted opportunities. The shortlisted initiatives were subsequently prioritized during a final workshop with the Steering Committee.

Planning and implementation support for these initiatives are outside the scope of this Rapid Diagnostic.

#### 2. Data quality

Data collection and validation took longer than expected.

EY's internal benchmarking approach requires a sizeable data set to run statistical analyses. The quality of the data, for example incompleteness and unavailability of data at times prevented EY from performing several analyses. EY advised at several occasions what performance metrics DEECD should start collecting to enable such analyses in the future.

### 3. Education Sector benchmarks

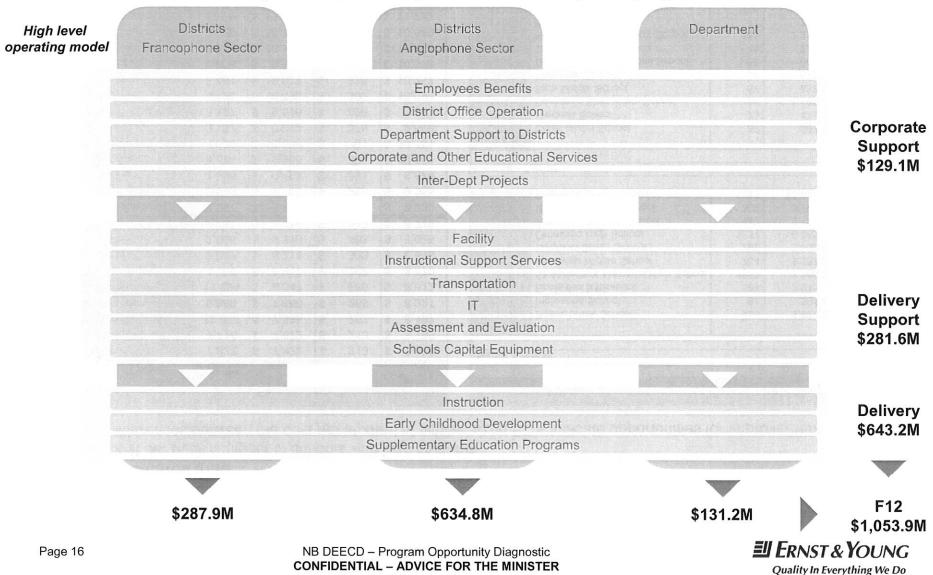
Comparability of benchmarks was the main challenge faced with external benchmarking for the Education Sector.

Even among Canadian jurisdictions, it was challenging to obtain a clear understanding of the data components when making cross jurisdictional comparisons. Whenever EY could not confirm the comparability of DEECD data with external benchmarks, we discarded the external benchmarking analysis in favour of internal benchmarks.



## The DEECD provides services across three main operational areas and in F12 had a budget of ~\$1B

Analysis indicates that significant opportunity is in Instruction, Facilities, Instructional Support, Transportation, and Early Childhood Development programs



## There is a significant variance in the cost of providing pupil education between different Education Centres and Schools

### Analysis indicates that:

- ▶ Cost per pupil is higher in schools with less students
- ▶ Differences between the cost per student of similar sized EC's indicate opportunities for improvement

District / EC	# pupils	55%	C direct cost per pupil	Jan 200	verhead per EC	2,050	EC total cost¹ per pupil
(ASD-E) Riverview	7.822	\$	7,822	\$	213	\$	8,035
(ASD-E) Sackville	7,716	\$	7,972	\$	213	\$	8,185
(ASD-W) Fredericton	12,077	\$	7,935	\$	262	\$	8,197
(ASD-S) Hampton	9,888	\$	7,956	\$	265	\$	8,221
(ASD-S) Saint John	11,325	\$	8,347	\$	265	\$	8,612
(ASD-W) Oromocto	4,780	\$	8,617	\$	262	\$	8,879
(DSF-S) Dieppe	3,277	\$	8,211	\$	305	\$	8,516
(DSF-S) Moncton	2,605	\$	8,319	\$	305	\$	8,625
(DSF-S) Fredericton	2,184	\$	8,414	\$	305	\$	8,719
(ASD-W) Woodstock	7,257	\$	8,977	\$	262	\$	9,239
(ASD-S) St. Stephen	3,690	\$	9,100	\$	265	\$	9,365
(ASD-N) Bathurst	1,596	\$	9,183	\$	391	\$	9,574
(ASD-N) Miramichi	5,374	\$	9,968	\$	391	\$	10,360
(ASD-N) Dalhousie	1,599	\$	10,360	\$	391	\$	10,751
(DSF-NE) Bathurst	3,153	\$	9,212	\$	378	\$	9,590
(DSF-NO) Edmundston	3,197	\$	9,516	\$	328	\$	9,843
(DSF-S) Shédiac	3,422	\$	9,793	\$	305	\$	10,098
(DSF-NO) Grand-Sault	2,481	\$	9,929	\$	328	\$	10,257
(DSF-NE) Tracadie-Sheila	2,802	\$	9,998	\$	378	\$	10,376
(DSF-S) Richibouctou	1,638	\$	10,156	\$	305	\$	10,462
(DSF-NE) Pokemouche	2,926	\$	10,171	\$	378	\$	10,549
(DSF-NE) Campbellton	1,770	\$	11,393	\$	378	\$	11,772
Avg (Total cost / # pupils)		\$	8,731	\$	287	\$	9,018
Total	102,579						

School#	School Name	# pupils (2011/12)	Expenditures (direct + alloc.)	С	ost² per pupil
Overall Ave	erage			\$	8,731
Top 10					
1503	Beaverbrook School	450	1,924,663	\$	4,277
2016	Inglewood School	91	594,473	\$	6,533
5138	École des Bâtisseurs	587	3,975,311	\$	6,772
2051	St. Malachy's Memorial High School	1053	7,168,385	\$	6,808
1549	Riverview Middle School	764	5,207,233	\$	6,816
2634	Liverpool Street School	297	2,052,604	\$	6,911
2513	Oromocto High School	1234	8,655,135	\$	7,014
2041	Princess Elizabeth School	442	3,112,971	\$	7,043
2512	Ridgeview Middle School	382	2,706,685	\$	7,086
2635	Fredericton High School	1917	13,634,661	\$	7,112
Average - Top 10					6,637
Bottom 10		Ī			
2405	Coles Island School	30	597,714	\$	19,924
4010	Harcourt School	23	421,197	\$	18,313
901	Doaktown Elementary School	88	1,447,737	\$	16,452
3001	Bath Middle School	57	857,160	\$	15,038
3818	Tide Head School	38	571,308	\$	15,034
1401	Dorchester Consolidated School	58	867,596	\$	14,959
802	Tabusintac Rural School	48	716,898	\$	14,935
2020	Hazen-White-St. Francis School	148	2,210,009	\$	14,932
4113	Séjour-Jeunesse	47	701,710	\$	14,930
3320	École Mgr-Matthieu-Mazerolle	116	1,584,178	\$	13,657
Average - E	Bottom 10			\$	15,817

<sup>&</sup>lt;sup>1</sup>Costs include 2011-12 direct school costs, salaries from 2012 payroll, and all other 2011-12 costs charged at the district level

<sup>2</sup>Costs include 2011-12 direct school costs, salaries from 2012 payroll, and 2011-12 allocated school costs charged at the district level



## 2.2 Qualitative themes for improvement



## Five qualitative themes range from governance, planning and information to management of change, external pressures and trust

Interviews and 13 workshops were held with the Executive and Directors at the Department and representatives from across the Districts and the Department. The purpose was to gather context for the review, identify "pain-points" and opportunities for improvement, and understand conditions for success. The input informed our recommendations for opportunities, change management activities, and high level implementation plans. The following issues were identified:

Governance structure, planning processes and roles

- Complexity is created by having to support and administer separate structures
- Lack of long-term educational and operational plans, roles and responsibilities and inclusive communications
- Separate structures within DEECD each Sector and Districts for curriculum and administrative functions
- Fragmentation between the two Sectors, Districts and Education Centres resulting in long decision lead times

Central Department / District working relationships and structures

- Increased collaboration and sharing of information and practices could be significantly increased
- Working structures and communications between DEECD and Districts appear to be misaligned and need improvement
- There appears to be duplication, gaps and fragmentation between Department and District Administrative support groups and the support is tactical in nature

Systems and information access and use of information

- Flow of information and data availability between DEECD and Districts is limited and results in missed opportunities to identify and address pupil performance and efficiency opportunities
- Systems are outdated and data and information are difficult to access. There is limited strategy on hardware and software infrastructure.

Continued challenges from recent amalgamation

- Recent amalgamation of Districts within each Sector is still "settling in", need proper functioning structures
- Norms and standards of operation are not clearly defined and vary across the province
- Roles, responsibilities are still not entirely clear and working processes are still being worked out
- Increased stress and decreased morale from changes in roles and in some cases, increases in workload (e.g. HR)

Political & public environment influence and changes

- Education is a "hot button" platform for many and there is typically a backlash to any changes to the education system or issues cause reactive change
- There is a need for DEC governance training and inclusion on the broader direction
- Potential for labour / union resistance to change, which will require focus and support to implement initiatives

Trust, performance & accountability for results

- The overarching concern is the perceived lack of trust between regions and levels within the organization
- Each part of the organization indicated a need and will to improve collaboration and accountability
- Progress on identified initiatives has encountered barriers and resistance (political and union)
- People processes need to become more strategic and utilized performance, accountability and development frameworks



## 2.3 Summary of opportunities



## Opportunities assessed could result in F14 net savings of \$14.2M - \$22.7M. High priority opportunities selected may result in \$11.3M -

\$16.1M

High priority

 $\bigcirc$  M

Medium priority

	na.	
1000	1	

Low priority

Wave	Pr	ioritized initiatives	Ongoing FTEs Savings*	Ongoing Savings (\$M)	F13/14 Net Expenditure Reduction (\$M)	F13/14-F17/18 NPV of Net Expenditure Reduction (\$M)
	1	Optimize teaching positions	545	33.2	8.7 – 10.9	77.8 – 203.7
W 4	4	Consolidate purchases	N/A	3.3	0.6 – 1.1	7.8 – 16.0
Wave 1	5	Daycare funding and service delivery controls	N/A	1.5	0.9 – 2.0	4.3 – 8.8
	6	Autism funding and service delivery controls	N/A	1.6	1.1 – 2.1	4.3 – 8.8
	2	Privatize pupil transportation services	N/A	9.5	0 - 0	22.0 – 27.0
	3	Optimize bus usage	N/A	7.5	0 – 0	13.8– 19.6
	7	Rationalize library services	85	1.5	0 – 1.0	3.9 – 8.7
Wave 2	10	Shared payroll and benefits	15	0.7	0.0 - 0.4	0.9 – 4.7
	11	Alternative delivery of custodial services	N/A	7	0 – 0	7.0 – 23.0
	12	IT efficiency	N/A	2.3	0.4 – 0.8	5.3 – 10.7
	13	Shared finance organization	13	0.7	0 - 0	1.5 – 4.1
14/ 0	8	Optimize the use of Education Assistants	259	5.9	2.6 – 4.4	17.9 – 30.8
Wave 3	9	Rationalize and optimize school infrastructure	116	14.3	0 - 0	25.1 – 50.2
	ТО	TAL	1,033	89.0	14.2 – 22.7	191.6 – 416.1

\*Note: Opportunities that outsourced internal resources were not counted as FTE reductions.

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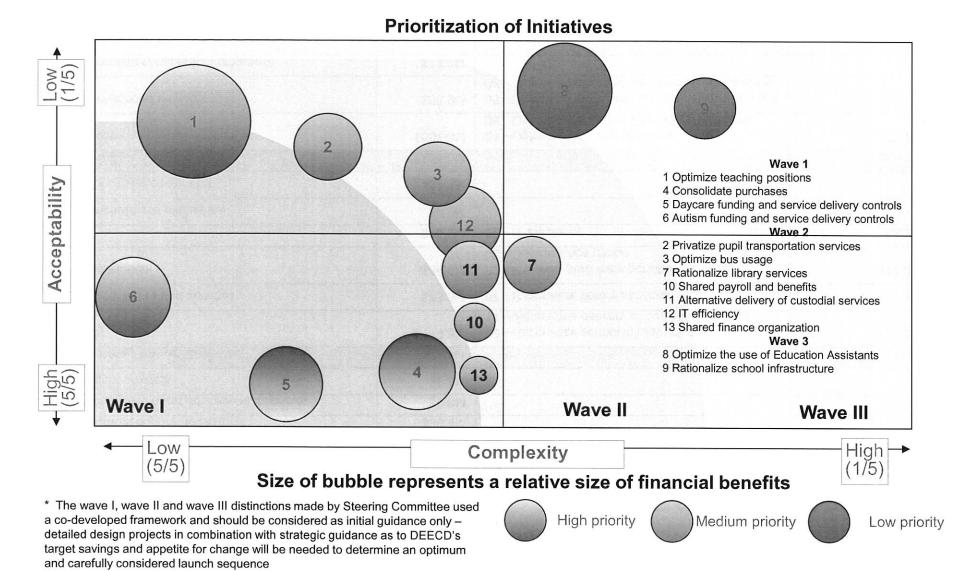


## Opportunities are highly concentrated in areas of high spend such as program delivery, facilities, transportation and support services

Operational areas	F12 Spend	Identified opportunities	Ongoing savings
Employees benefits	\$50.4M	Various	
Districts office operation	\$33.0M	10 - Shared payroll and benefits 13 - Shared finance organization	\$1.4M
Department support to Districts	\$30.4M		
Corporate and other educational services	\$9.8M		
Inter-dept projects	\$5.5M		
Corporate Support Sub-total	\$129.1M		\$1.4M
Facility	\$110.8M	09 - Rationalize school infrastructure 11 – Alternative delivery of custodial services	\$21.3M
Instructional support services	\$83.3M	07 - Rationalize library services	\$1.5M
Transportation	\$64.0M	02 - Privatize pupil transportation services 03 - Optimize bus usage	\$17.0M
IT	\$16.9M	12 - IT efficiency	\$2.3M
Assessment and evaluation	\$4.2M		
School capital equipment	\$2.4M		
Delivery Support Sub-total	\$281.6M		\$42.1M
Instruction	\$564.6M	01 - Optimize teaching positions 08 - Optimize the use of Education Assistants	\$39.1M
Early childhood development	\$55.9M	05 - Daycare funding and service delivery controls 06 - Autism funding and service delivery controls	\$3.1M
Supplementary education programs	\$13.7M		
Delivery Sub-total	\$634.2M		\$42.2M
General	\$0M	04 - Consolidate purchases	\$3.3M
Total	\$1,044.9M		\$89.0M



## The Steering Committee prioritized 4 initiatives out of 13 for initial consideration





# A further 10 opportunities were identified in order to improve organizational capability and capture additional savings – financial, data and project management capability are critical in the long term.

	High priority Considerations for the future	
lde	ntified initiatives	Area
Enabl	ing opportunities	
14	Simplify budgeting, reporting and control process	Finance
15	Optimize statistics and data quality and assurance systems	IT
16	Establish a program and project management methodology and discipline	Strategic
Un-as	sessed opportunities for future consideration	
17	Alternative payroll and benefits delivery	Payroll
18	Improve absenteeism that increases the use of casual workers	School Staffing
19	Reduce the administrative time required to communicate, obtain replacements and record absenteeism	School Staffing
20	Alternative delivery of maintenance services and optimize based upon facilities usage	Facilities
21	Reduce the level of light vehicle fleet vehicle costs (maintenance, capital, operating costs)	Transportation
22	Evaluate funding of extra-curricular travel	Transportation
23	Investigate further consolidation of the Districts	District Structure



# Considering DEECD initiatives planned for F14, EY identified opportunities will provide a net cost reduction at least \$80.1M on an on-going basis

	\$000
Transportation Optimization/Dismissal Time	(3,300)
Custodial Services - Standardization	(1,100
Close schools or sections of schools	(800)
Procurement	(2,200
Internal Audit efficiencies	(1,500
Subtotal of common opportunities	(8,900

School District rationalization	(3,400)
Management of absenteeism	(1,000)
Accelerating govt renewal savings	1,090
IM & ITC	(722)
Demo Schools Project Anglo	(600)
Professional Learning Anglo	(500)
General reduction	(3,465)
Miscellaneous (less than \$500k)	(2484)
Savings from collective bargaining	(2,000)
Subtotal of other DEECD opportunities	(13,081)
Totals	(21,981)

		Vet difference
	\$000	\$000
Optimize Bus Usage	(7,500)	(4,200)
Alternative delivery of custodial services	(7,000)	(5,900)
Rationalize school infrastructure	(14,300)	(13,500)
Consolidate purchases*	(3,300)	(1,100)
Optimize Teaching Positions*	(33,200)	(33,200)
Daycare funding and service delivery controls*	(1,500)	(1,500)
Autism funding and service delivery controls*	(1,600)	(100)
Privatize pupil transportation services	(9,500)	(9,500)
Rationalize library services	(1,500)	(1,500)
Shared payroll and benefits	(700)	(700)
T Efficiency	(2,300)	(2,300)
Shared finance organization	(700)	(700)
Optimize use of Education Assistants	(5,900)	(5,900)

(89,000)



(80,100)

<sup>\*</sup> Note: Opportunities included as a Wave 1 priority

## 2.4 Next steps



## Proposed next steps include aligning leadership, rationalizing and planning initiatives, and designing and rolling out changes

#### Review and ratification of diagnostic report

Internal DEECD and Minister review

### Initiate Change Management strategies and actions

▶ Refer to Appendix for the high-level Change Management Strategy and actions

### Launch "quick-start" initiatives and stabilize recent amalgamation changes

#### Conduct strategic alignment / priority session

- Senior level discussion with Part 1 and 2 leadership
- Align on vision for quality education within NB
- Identify gaps, and prioritize actions from the list of internal and external opportunities

#### Conduct governance roles session

- ▶ Senior level discussion with Minister, DEC's and Part 1 and 2 leaders
- Clarify roles, authorities and protocols

### Establish Departmental-level program and project management organization

- Develop project-based competencies and focus
- Establish and monitor project priorities and work plans

#### Communicate vision and direction:

- Roll-out results of strategic session to operational leaders

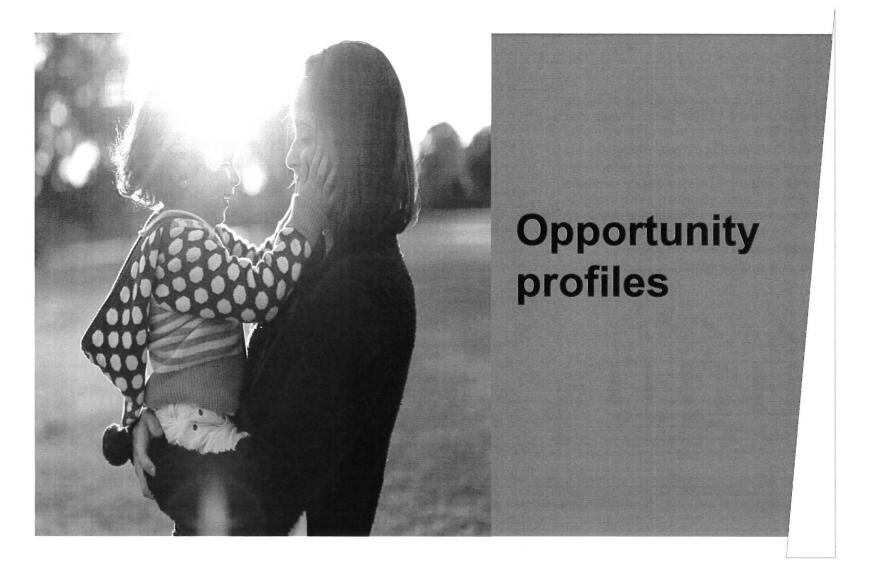
## ► Cascade further into the rest of the organization Prepare for and launch the first wave of initiatives

- Review lessons learned from past changes including a change readiness assessment
- ▶ Communicate Wave 1 initiatives
- Identify resources / plan / prepare to launch
- Design and launch the initial set of initiatives





<sup>\*</sup> The wave I, wave II and wave III distinction made by the Steering Committee using the co-developed framework should be considered as initial guidance only – detailed design projects in combination with strategic guidance as to DEECD's target savings and appetite for change will be needed to determine an optimum and carefully considered launch sequence



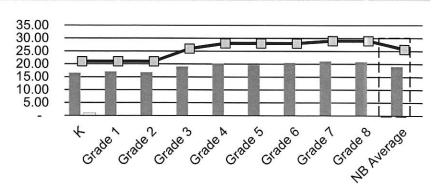
## Opportunity 1: Optimize the number of teaching positions Current state

## **Current state description & analysis**

- ➤ Total pupil enrollment in New Brunswick has declined by a total of 7,528 in the past 4 years (from 110,107 in 2007-08 to 102,579 in 2010-11.) Decline in student enrollment is expected to reach a total of 10,000 by school year 2013-14 and plateau at that level.
- While enrollment has declined, the number of teaching positions in public schools has remained relatively stable over the last several years.
- ▶ In light of the decline in enrollment, we analyzed the ratio of pupils to teachers as of September 2011
- ► As of September 2011, the New Brunswick average pupil to teacher ratio was 13.3. There are a total of 43 schools with a pupil/teacher ratio of 10 and below:

District	# Schools with (Pupil/Teacher Ratio equal to or less than 10)	
Anglophone East	2	
Anglophone North	7	
Anglophone South	9	
Anglophone West	9	
Francophone Nord-Est	8	
Francophone Nord-Ouest	3	
Francophone Sud	5	
Total	43	

## Current state diagnostic



- Classroom size by grade
- ▶ As shown above, the average class size across New Brunswick is 19 pupils and the average maximum class size allowable per the collective agreements is 25.7 pupils, presenting an opportunity to raise classroom size by approximately 7 pupils a class.
- ► Consideration will need to be given to population density in determining the feasibility of the opportunity, for example, the population in rural areas may not allow for increased utilization unless some schools are consolidated.

## Opportunity 1: Optimize the number of teaching positions Opportunity definition

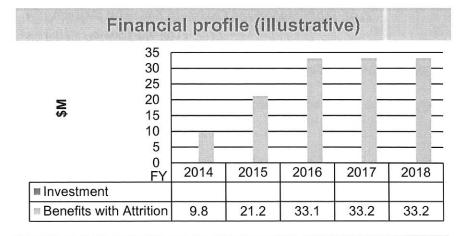
## **Opportunity description**

- ► There is currently an opportunity to optimize the number of teachers in the school system. A high and low range has been calculated and the median point presents savings of approximately \$33.2M annually.
- ➤ The low range has been calculated by taking the decline in enrollment from 2007-08 to 2010-11 and deriving the excess capacity in teachers based on the decline in the number of pupils.
- ▶ The high range has been calculated by taking the gap between the actual average classroom size and the collective agreement maximum classroom size. There is an opportunity to increase classroom size to mirror collective agreement allowable size and therefore address the excess capacity in teachers.

	High	Medium	Low
\$Million	\$48.1	\$33.2	\$18.4
FTEs	788	545	301

▶ We have assumed the benefits above can be achieved through attrition. The projected attrition numbers for the next five years are on average 200 a year as shown in the chart below.

	Projected Attrition				
	2014	2015	2016	2017	2018
Attrition	200	187	195	200	229
Medium Benefits with attrition	9.8	21.2	33.1	33.2	33.2



Financial Summary	LOW	HIGH
F14 Net Benefit with attrition	\$8.7M	\$10.9M
F14-F18 NPV of Net Benefit	\$77.8M	\$203.7M

### Non-financial profile

#### Complexity

- ► Agreement from various internal stakeholders groups that capacity exits to support the achievement of this benefit
- ► The DEECD has some ability to influence the decision although control rests at the Provincial level
- ▶ The level of change or transformation required is low

#### Acceptability

- ► This is a sensitive political issue as it pertains to alignment with the platform commitment.
- ▶ Unlikely to impact the quality of education delivery as enrollment has declined.



## Opportunity 1: Optimize the number of teaching positions Approach to implementation and other considerations

## Design & implementation strategy

- ▶ It is recommended that classroom size be increased to more closely mirror the standards outlined in the collective agreement. The DEECD must undertake a more detailed review to determine the geographies were population density supports the increase of pupils in each class.
- The review should be conducted in conjunction the school amalgamation review to determine which schools could be amalgamated in less densely populated areas to further support the increase in the number of pupils per class.
- ▶ It will be important to demonstrate that the optimization of teaching positions going forward does not negatively impact the quality of education delivery as there was existing excess capacity prior to the platform commitment. In fact, combining classes will improve the educational and social experience for those children in classrooms with less then 10 pupils.
- It will be important to collaborate closely with the Districts and District Education Councils (DECs), communicate a consistent message and work with the community to obtain support to effectively implement this initiative.

### **Assumptions**

- ➤ The analysis takes a conservative approach assuming that it will be possible to successfully pursue approximately 50% of the top line calculated benefit.
  - Achieving the benefit in less densely populated areas will be more challenging unless the opportunity is implemented in conjunction with the school amalgamation opportunity.
  - We have not observed operations or the layout (physical size) of the classrooms. There may be various operating issues and challenges that may be encountered during the detailed design phase.
- Average teacher salary has been calculated based on an average from the various teacher classifications in the collective agreements plus a 9% factor for benefits, derived from benefits costs extracted from Oracle data.
- Maximum allowable class size has been calculated by taking an average of the maximums outlined in the teacher's collective agreement.

#### Data Sources:

- ▶ DM3665-Regular classes with number of students per class 2012-09-30 prepared by DEECD
- ► Collective Agreement Between Board of Management and the NB Teachers Federation, March 1, 2008 to February 29, 2012
- ▶ Part 2 Payroll Data 2011-2012
- ▶ Published Summary Statistics 2007-2008 to 2011-2012



## Opportunity 2: Privatization of pupil transportation services Current state

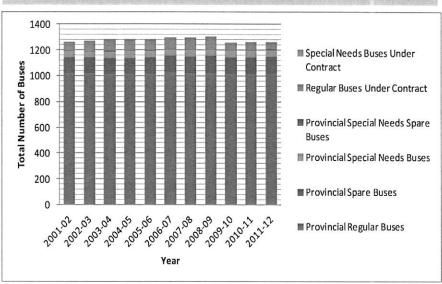
## Current state description & analysis

- The Office of the Comptroller (OOC) had a School District Busing report written in January 2007, which also examined the possibility of privatizing pupil transportation services to achieve operational savings.
- ► There were 1,258 school buses operating in the province for 2011-12 school year. 1,207 buses are owned by the province in 2011-12. 3.9% (49 of 1258) of the total school bus fleet are privatized. The majority of these (37 buses) are operating in the Moncton area, formerly District 2 (now a part of Anglophone East).
- ► The school bus fleet is maintained by the Vehicle Management Agency (VMA).
- ► The average age of the school bus fleet documented in the 2013-2017 VMA Business Plan was noted as 7.4 years in June 2012. The optimum average age for the fleet is noted as 6.0 years.

VMA Business Pla	A Business Plan 2012-17: Average Repair Cost Per KM (HR)		
Vehicle Type	Cost per KM	Number of Buses In Range	Percentage of Fleet
Buses ≤ 5 year	\$0.19	431	35.50%
Buses ≥ 12 year	\$0.63	235	19.30%

- ► The 2007 OOC report notes the approximate cost of a new bus to be \$72,000, and it is now approximately \$90,000.
- ▶ Transportation spending was \$64.1M for school year 2011-12, which was 6.1% of the total departmental budget. This aligns with the 2007 OOC report range of 5.9% to 8.5% across the Districts. There are approximately \$24.9M in regular salaries.
- ► A DEECD white paper titled Privatization of Pupil Transportation Services also reviewed the opportunity using the 2010-2011 school year.
- Our review compared the white paper to the 2007 OOC report and used data for operating school buses in 2011-12. All three analysis used the former District 2 average cost of contracted buses for a comparison.

## Current state diagnostic



- ▶ Internal benchmarking performed by the DEECD in its white paper found "other jurisdictions, including Ontario, Quebec and parts of Newfoundland and Labrador have privatised pupil transportation." It states that "the Province of Newfoundland and Labrador 's bus fleet is approximately 40% private and is composed of several very small operations. Their contracts were signed at a yearly [per bus] rate of between \$40,000 and \$45,000 per school year."
- ► The 2007 OOC report also states "other jurisdictions have bussing services contracted out to varying percentages in Quebec, Ontario, Newfoundland and Labrador and Nova Scotia. "The report also cites Andy Forsyth's "Timely Transport" (May 2005) which states "student transport is typically 4 5% of a school district's overall budget." As stated previously, New Brunswick DEECD is approximately 6.1%.

## Opportunity 2: Privatization of pupil transportation services Opportunity definition

## Opportunity description

- Based on the cost comparison between the privatized buses in the former District 2 (now a part of Anglophone East) and the cost of operating the provincially owned bus fleet, a potential savings opportunity exists for the privatization of pupil transportation services.
- ▶ The cost of each of the former School District 2's private contracted bus was identified to be \$51,425 per bus over 187 school days in the DEECD white paper, which assumed annual savings of \$51,000 for 2010-11. The 2007 OOC report notes the annual cost for contracted buses as \$44,300.
- ▶ The DEECD white paper calculated that each annual public bus costs on average \$60,000 a year to operate (including bus depreciation and employees/employer shared benefits). Our high level estimate was \$58,000, confirming the white paper estimate. The 2007 OOC report calculated this to be \$49,200.
- ► The savings are estimated to be between \$8M and \$9M. The upper range was estimated to be \$11M based on 2011/2012 annual operating costs.

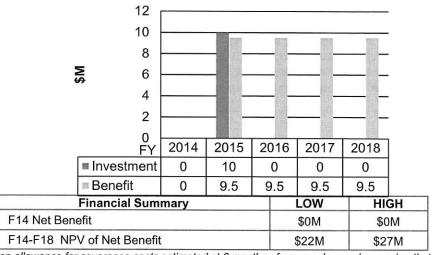
Potential Savi	ngs Opportunity (Upper	Range)		
Year		(B.) Annual Cost		
	Owned Buses	of Provincial Bus	of Private Bus	Potential Savings
2011-12	1207	\$60K	\$51K	\$11M

► The mid point of the savings range of the DEECD white paper finding was \$7M – \$9M and the mid point of \$8M was selected as the low end of our estimate.

	High	Med	Low
\$ Million	\$11.0	\$9.5	\$8.0

► Additionally, the bus fleet would also have a used salvage value. This was not calculated in the savings estimates.

## Financial profile (illustrative)



Note: an allowance for severance costs estimated at 6 months of gross salary and assuming that there will be retirements, turn-over, and temporary positions that will not require full severance.

### Non-financial profile

#### Complexity

- ▶ As noted in the 2007 OOC report, "The Canadian Union of Public Employees collective agreement states in Article 29 that contracting-out of work will not be permitted if it causes a reduction in the bargaining unit of the District." Additionally, it reported "the only real opportunity to remove a run occurred when a bus driver retired. Impacted drivers may be entitled to salary continuation for the first twelve months of an 18 month lay off period."
- Once a bus fleet is sold, there is no going back due to the lost experienced personnel and capital costs to purchase a new fleet.

#### Acceptability

Privatization would most likely receive adverse public reception due to outsourcing of people's jobs.



## Opportunity 2: Privatization of pupil transportation services Approach to implementation and other considerations

## Design & implementation strategy

- ▶ This review was conducted at a high level and it compares the cost of the provincially owned fleet that has inefficiencies in bus run occupancy and in runs per bus (noted in the 2007 OOC report) to the privatized fleet costs. The feasibility of privatization needs to be study in depth as well as the associated costs and timing.
- ► Current focus is on increasing the efficiency of the provincial fleet with the aid of Global Positioning System (GPS) installed on the buses. Then a comparison between the costs of the two options could be revisited in the future.
- ▶ 19% (235 buses) of the fleet is older than 12 years. As noted in the 2007 OOC report, Quebec has a departmental policy of limiting the age of a bus to 12 years and Newfoundland is 14 years. There is no law limiting the age of the buses, however, there is a risk of public perception should an older bus have an accident. Increasing the percentage of privatization could help reduce the average age of the fleet and help mitigate this risk. However, 200 buses are randomly checked by Public Safety each year.
- ▶ There is a risk that costs of the privatized buses will increase if the provincial buses are removed and the school Districts have no leverage to negotiate except for competitive bidding. (Initial bids may be low to get the business and then increase afterwards).
- There is a risk that pricing will not be competitive in our region if the bus fleet is privatized. The CBC news website contains an article titled Price-fixing, Bid-rigging Found In St. John's School Bus Contracts (20 February, 2009). The article notes that 13 companies paid a fine for breaking competition rules and applying to tenders as a group between 2001 and 2003.
- ► The school buses are included in emergency management plans for evacuations, which would need to be included with the privatized bus services as well. (for example Point Lepreau clear out plan).

## **Assumptions**

- ► The estimate for annual costs per year for privatized buses based on the current costs for the former District 2 are competitive and would remain the same on a larger privatized fleet.
- ▶ The DEECD white paper notes the school bus fleet is at least 35% of the Vehicle Management Agency (VMA) operation. This may provide additional savings as well.
- ► The privatization plan can be a phased implementation through attrition, or after the CUPE collective agreement expires. Article 29 of the collective states that contracting-out of work will not be permitted if it causes a reduction in the bargaining unit of the District.
- ► This analysis assumes no reduction in the number of buses through optimization efforts. Reducing the number of buses would reduce the level of savings that could be achieved.

#### Data Sources:

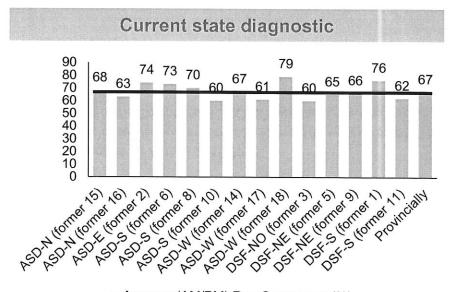
- ▶ Oracle Supplier by Activity 2011-2012
- ▶ Number of buses for years 2001-02 to 2011-12 prepared by DEECD
- ► The Office of the Comptroller (OOC) School District Busing Report ( January 2007)
- ▶ 2013-2017 Vehicle Management Agency (VMA) Business Plan
- ► DEECD white paper titled Privatization of Pupil Transportation Services 2010-2011



## Opportunity 3: Optimize bus usage and reduce fleet size Current state

## Current state description & analysis

- ► There were 1,258 school buses operating in the province for 2011-12.
- ➤ Transportation spending was \$64.1M for school year 2011-12, which was 6.1% of the total departmental budget. This aligns with the 2007 OOC report range of 5.9% to 8.5% across the Districts.
- ► The Office of the Comptroller (OOC) wrote a School District Busing report in January 2007 that also examined potential savings associated with improved school bus efficiency.
- ► The 2007 OOC report lists several items that potentially could help optimize the bus fleet usage some of which included:
  - Standardizing bus management tools (Auto-Bus and VersaTrans)
  - Staggered bell times and extended hours to optimize the use of multiple runs per bus
  - ► Eliminate courtesy riders (within 2.4kilometres walking distance) and optimize bus routing each year
  - ▶ Reduce idle time and deadhead kilometres
- Our review utilized the 2007 OOC report's bus fleet data and the 2011-12 transportation spend to estimate the potential fleet reductions and associated operational savings.



Average (AM/PM) Run Occupancy (%) Source: OOC January 2007 Report: School District Bussing

- ▶ External bench marking performed for the 2007 OOC report cites Andy Forsyth's "Timely Transport" (May 2005) which states "well run pupil transportation operations typically have 70 %— 85% bus occupancy." The bus occupancy percentage for New Brunswick was 67%.
- ► The 2007 OOC report citing Andy Forsyth's "Timely Transport" (May 2005) states "student transport is typically 4 – 5% of a school district's overall budget." As stated previously, New Brunswick DEECD is approximately 6.1%.



## Opportunity 3: Optimize bus usage and reduce fleet size Opportunity definition

### Opportunity description

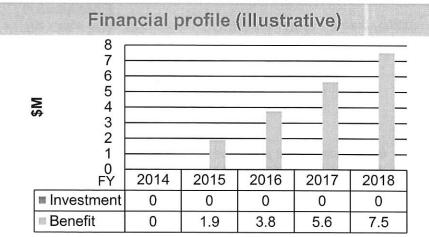
- ▶ This opportunity is based on applying the average bus run occupancy and runs per bus to the former Districts that were not achieving this level in the 2007 OOC report. It was estimated that the fleet size could be reduced by110 buses (9%). The 2007 OOC reported similar ranges with an estimated reduction of 90 buses (7.5%).
- ▶ The DEECD white paper titled *Privatization of Pupil Transportation Services* used 2010-2011 school year data to estimate that each annual public bus costs on average \$60,000 per year to operate (including bus depreciation and employees/employer shared benefits). Our estimate using data for 2011-12 was \$58,000, confirming the white paper estimate. The 2007 OOC report calculated this to be \$49,200.
- ► The estimated potential savings of eliminating 90 to 110 buses was estimated to be \$5M – \$7M in an annual operating costs. The 2007 OOC report estimated 90 buses for a potential annual savings of \$4M using a smaller annual cost per bus.
- ➤ The following tables illustrates areas that were below the average run occupancy and runs per bus used to estimate the annual savings:

District (Associated Area)	Run Occupancy%	Provincial Average	Average Runs Per Bus	Provincial Average
ASD-S (District 10: St. Stephen)	60	67	1.3	1.6
ASD-N (District 16: Miramichi)	63	67	1.3	1.6
ASD-W (District 17: Oromocto)	61	67	1.6	1.6
DSF-NO (District 3: Edmundston)	60	67	2.2	1.6
DSF-NE (District 5: Campbellton)	65	67	2.0	1.6
DSF-NE (District 9: Tracadie-Sheila)	66	67	1.8	1.6
DSF-S (District 11: Richibucto)	62	67	1.7	1.6

► Further reductions of \$1M to \$2M can be assumed by mirroring the drop in student attendance of 3.2% since 2010/11 when the number of active buses remained relatively stable.

	High	Med	Low
\$ Million	\$9.0	\$7.5	\$6.0

► The buses removed from the fleet would also have a used salvage value.



Financial Summary	LOW	HIGH
F14 Net Benefit	\$0M	\$0M
F14-F18 NPV of Net Benefit	\$13.8M	\$19.6

### Non-financial profile

### Complexity

- ► The 2007 OOC report reviewed The Canadian Union of Public Employees collective agreement in association with eliminating routes and noted "Impacted drivers may be entitled to salary continuation for the first twelve months of an18 month lay off period."
- ► School hours and staggering times are would need teachers union approval for increased supervision time.

### **Acceptability**

- ► Changing policies on school start times, changing bus routing and bus stops and limiting those who are accepted on the buses can have adverse public reception.
- Parents may not be receptive to longer ride times or reduced "convenience" pick-ups to increase efficiency



# Opportunity 3: Optimize bus usage and reduce fleet size Approach to implementation and other considerations

### Design & implementation strategy

- ► The Director of Education Facilities and Pupil Transportation's preference is to focus on increasing the efficiency of the provincial fleet with the aid of Global Positioning System (GPS) installed on the buses, as opposed to privatization (Opportunity 2). Once the fleet usage has been optimized, a comparison can then be made between the costs of the two options in the future.
- ▶ A level of standard for student transportation services needs to be established and enforced. This would standardize the service throughout the different Districts. It would include such criteria as:
  - Maximum walking distance to school and to bus stops
  - Maximum allowable travel time for students
  - Maximum wait times for students before and after school
  - Maximum number of students per bus
- ► The first step the DEECD is proceeding with in the optimization plan is to install Global Positioning System (GPS) on the school buses. The Director has discussed the option with the Vehicle Maintenance Agency (VMA) and they will install one District at a time, as the buses come in for regular maintenance with negligible cost. The benefits of installing GPS include:
  - Improved safety (knowing when buses are broke down or have been involved in a severe risk event such as an accident or high jacking)
  - Improved management and cost savings (monitoring of speed, stops, route adherence, idling and route timing)
- ▶The 2007 OOC report and this analysis were high level assessments based on overall bus data summaries in the former Districts. It is recommended that a detailed assessment of individual bus routes be performed after the GPS are installed to determine more accurate savings opportunities and efficiencies in routing.

### **Assumptions**

- ► The opportunity calculation is based on the assumption of applying the average bus run occupancy and runs per bus to the former Districts who were not achieving this level in the 2007 OOC report, to estimate the savings of operating more efficiently. This is a very high level assessment.
- ▶ The Districts used in the calculations (lower than the average bus occupancy) were more of a rural composition. (i.e. excluding the larger urban centres of Moncton, Saint John, and Fredericton). The 2007 OOC report states "we recognize that because of the demographics and composition of the Districts, these targets may not be attainable by all Districts." The calculations in both reviews are assuming they can be attained and is representative of the total potential savings.
- ► That the bus usage data in the 2007 OOC report was accurate when it was collected and that it is still representative of the current fleet's utilization.
- As noted in the design and implementation strategy, it is recommended that a more detailed review of individual bus route data be performed in the future to aid in bus routing efficiency. Additionally, it would reduce the amount of assumptions being made while improving accuracy.

#### Data Sources

- ► Oracle Supplier by Activity 2011-2012
- Number of buses for years 2001-02 to 2011-12 prepared by DEECD
- ► The Office of the Comptroller (OOC) School District Busing Report (January 2007)
- ► DEECD white paper titled Privatization of Pupil Transportation Services 2010-2011

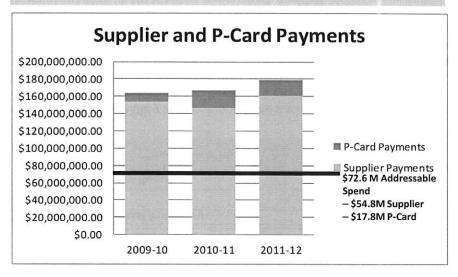


## **Opportunity 4: Consolidate purchases Current state**

### Current state description & analysis

- Procurement of goods and services is not done centrally within DEECD and the School Districts; as well, purchases under common contracts are not fully performed.
- ► P-Card purchases for DEECD have ranged from \$10.4M to \$19.9M between 2009-10 to 2011-12. There were 100,759 P-card purchases made in 2011-12.
- ► Supplier payments for DEECD have ranged from \$154M to \$161M between 2008-10 to 2011-12.
- ▶ A high level analysis was performed on the P-Card and supplier payments made in 2011-12 to estimate the amount of spend that could potentially be grouped under addressable consolidated spending. Items such as programs for Family and Early Childhood Development and payments made to municipalities were excluded from the disbursements to arrive at an addressable spend of approximately \$73M.
- ► The estimated addressable spent was then multiplied by the savings range we typically see for centralized procurement to validate the \$2M budget reduction goal of Strategic Procurement for DEECD.

### **Current state diagnostic**



- ▶ Benchmark savings range between 3% to 6% of the addressable spend based upon EY practitioner knowledge and typical savings seen in strategic sourcing projects.
- ► Leading practices in strategic procurement include:
  - Greater focus on savings derived from improved levels of business compliance
  - ▶ Regular benchmarking of contract value and delivery
  - High percentage of spend under contract
  - ▶ Minimal number of suppliers for key spend categories
  - ► Optimal use of competitive bidding
  - Consistent, standard contracts in a central repository



## Opportunity 4: Consolidate purchases Opportunity definition

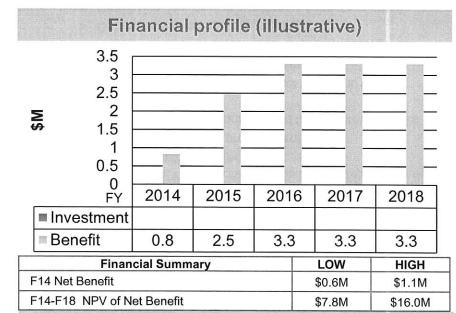
### Opportunity description

- ► An opportunity exists to improve buying leverage within the Department and Districts and across the different Departments to achieve favourable purchasing cost reductions.
- ► The following tables illustrate P-card purchases in 2011-12 to illustrate some of the opportunities by vendor:

Selected P-Card Purchases from 2011-12					
Vendor	Number of Transactions	Total Value			
Colpitts	5,000	\$806,318.91			
Staples	4,305	\$525,370.70			
Scholastic	1,857	\$388,230.70			
Covey Basics	2,205	\$320,074.72			
Wal-Mart	2,961	\$267,882.52			
Harris & Roome	1,172	\$245,164.88			
MCS Sanitation	635	\$236,591.29			
Amazon	2,405	\$206,731.70			
Canadian Tire	2,318	\$194,671.70			
Kent Building Supplies	2,118	\$193,635.60			
Spectrum Nasco Simfg	880	\$170,825.49			
Future Shop	548	\$155,828.64			
Scholar's Choice	867	\$142,880.42			
Liteco Inc	725	\$107,402.40			

- Other examples include the \$250 teacher spending on classroom supplies which is not spent through established contracts and rental car consolidation and usage.
- ► The estimated addressable spend of \$73M was multiplied by the 3% – 6% savings range EY typically experiences for centralized procurement.
- ▶ Our review of the 2011-12 P-card and supplier purchases identified an opportunity of \$2.2M-\$4.5M in annual savings. Note that some minor Department 19 expenditures could be included.

	High	Med	Low
\$ Million	\$4.5	\$3.3	\$2.2



### Complexity

▶ The Purchasing Policy may prevent some addressable spend from being consolidated across the group because it provides authority for local purchasing decisions. Department of Education Policy 107: Purchasing states in Article 6.31. that purchases up to \$75 must be made from Petty Cash if available. Article 6.3.2 states supplies up to \$1,500 are to use the Province's Local Purchase Order (LPO) and Article 6.3.3. is for supplies that exceed \$1,500 and require a requisition.

Non-financial profile

### **Acceptability**

- ► There is often some resistance to using centralized procurement as people have tendencies to want to purchase products on their own, especially when selecting such items as electronic equipment.
- Other factors could include the desire to support local businesses or purchasing from local business in exchange for sponsorship of school athletics or functions.



## **Opportunity 4: Consolidate purchases Approach to implementation and other considerations**

### Design & implementation strategy

- An opportunity exists to use the Strategic Procurement Department of Government Services to benefit from the bargaining power and savings of consolidated spending. Strategic Procurement has a program in place and it is up to the DEECD to educate and encourage its staff to use centralized procurement. This includes goods and services purchased in separate regions such as:
  - ▶ Legal representation
  - ▶ Maintenance supplies and equipment (Are supplies and equipment being purchased at negotiated discounted rates for purchases made with P-cards at vendors such as Harris & Roome, Canadian Tire and Liteco Inc)
  - ▶ Vehicles (Have established a maximum of three car rental vendors with a winter premium to guarantee winter tires. The cost comparison of the rental to the mileage reimbursement must be made to select the cheaper option)
  - ► Education supplies (May be purchased under \$1,500, but there are some office supply contracts established that provide savings of up to 20%)
  - Computers and other electronic equipment (Purchases being made outside the established technology contract, for example, Future Shop)
  - Classroom teacher supplies that fall under the \$250 per teacher allowance
- ▶ Broaden the use of established contract arrangements, participate with Strategic Sourcing procurement program and maintain responsibility to monitor/audit overall purchasing assessment and analysis (especially P-Card purchases and purchases under \$1,500 that could have been purchased under established contracts).
- ► Establish controls for spending at the end of quarters to help control discretionary spending of surplus budget.

### Assumptions

The analysis was based on the following assumptions:

- All spend was included within the data sample.
- ► All spend in the sample was categorized properly within the enterprise management system.
- Preferred negotiated prices were not taken advantage of in the purchases within the sample.
- Savings opportunities across the different commodities would be similar.

### Data Sources:

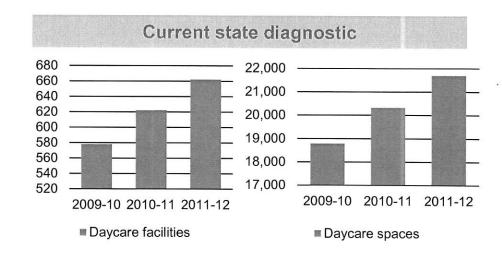
- Oracle P-Card Purchases by Supplier 2011-2012, 2010-11, 2009-10
- Oracle Supplier by Activity 2011-12



## Opportunity 5: Daycare funding and program delivery controls Current state

### Current state description & analysis

- ► The DEECD provides funding to Daycare through a number of programs including:
- Daycare Assistance Program (DAP) provides sliding scale assistance for parents with a net income less than \$45,000. In 2011-12, 5,966 children in approved daycare facilities benefited from the DAP
- Quality Improvement Funding Support provides wage top up for childcare educators with the goal to increase the availability and quality of child care services. Of the 662 approved facilities, 90% or 596 received QIFS funding in 2011-12
- Opportunities to improve controls governing these programs were raised as follows:
  - QIFS There is an opportunity to alter funding model to a shared responsibility model where daycare employers contribute a percentage of the wage top up
  - QIFS There are no public regulations governing the minimum pay for daycare educators. Rates are determined privately by daycare facilities. Stronger controls are required to verify that funding provided to daycare providers is utilized appropriately
  - ▶ DAP There is an opportunity to improve oversight controls after initial approval. For instance when children discontinue attendance reliance is placed on the daycare or parent to advise the DEECD to discontinue payments.
  - ▶ The process to license and approve Daycares requires significant manual data entry. Every year, each daycare is required to complete a 30 page paper application form (660 daycares.) There is an opportunity to automate and leverage staff on value added work such as validating compliance with funding requirements.



- ► From 2009-10 to 2011-12 there has been an approximate increase of 15% in Daycare facilities and 16% in Daycare spaces
- Should the trend continue it will become increasingly important to strengthen controls to minimize funding leakage within these programs.
- ▶ Based on our experience, about 3-6% of funding dollars are lost through processing errors, system abuse, and poorly designed controls.



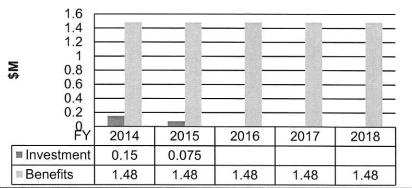
## Opportunity 5: Daycare funding and program delivery controls Opportunity definition

### Opportunity description

- ► There is an opportunity for a shared responsibility funding model that would set standards for daycare providers for a minimum rate for early childhood educators. The model would require daycare providers to fund 30% of the QIFS with the DEECD funding the remaining 70%
- ➤ Our experience indicates that approximately 3-6% of program dollars are lost through processing errors, system abuse, and poorly designed controls.
- ▶ Based on the budget for 2011-12, we estimate potential annual savings as follows.

Program	Budget (\$M)	Sav	ings Estimates	es (\$M)		
	2011-12	Low 20%	Med 30%	High 50%		
Funding Formula QIFS	\$18.7	\$3.7	\$5.6	\$9.4		
	2011-12	Low (3%)	Med (4.5%)	High (6%)		
DAP	\$14.2	\$0.4	\$0.7	\$0.9		
QIFS	\$18.7	\$0.5	\$0.8	\$1.1		
Total (\$M)	\$32.9	\$0.9	\$1.48	\$2.0		

### Financial profile (illustrative)



Financial Summary	LOW	HIGH
F14 Net Benefit	\$0.9M	\$2.0M
F14-F18 NPV of Net Benefit	\$4.3M	\$8.8M

### Non-financial profile

### Complexity

- ► The DEECD has limited capability to successfully realize the estimated benefits
- ► The DEECD has the ability to control the outcome
- ► The level of change or transformation required is moderate

### Acceptability

- Positive impact on service efficiency and management of public funds
- No impact on the number of FTEs, and a positive impact on staff engagement



## Opportunity 5: Daycare funding and program delivery controls Approach to implementation and other considerations

### Design & implementation strategy

- It is recommended that the DEECD collaborate with the Daycare operators to obtain support for the identification and implementation of control improvements
- ► This will ensure better collaboration with initiatives DEECD implements and will limit resistance to changes in operations required to achieve identified benefits.
- ► The public may perceive that initiatives to improve cost efficiency will adversely affect the delivery of Daycare services in the Province. It will be important to communicate that operational changes are designed to improve program efficiency and the quality of services delivered.

### **Assumptions**

- The trend in increasing Daycare facilities and spaces will continue into the future
- ► FTE hours previously spent in data entry can be redirected to compliance and audit activities
- ▶ DEECD is able to automate the application processes so that data is entered once and can be interfaced with DEECD systems

### Data Sources:

- ► Early Childhood Development Budget 2012-2013
- ► Daycare Assistance Program Policy
- QIFS Handbook
- ▶ Child Daycare Services Statistics Report 2011-2012
- ▶ Daycare Operator Standards Interim June 2012

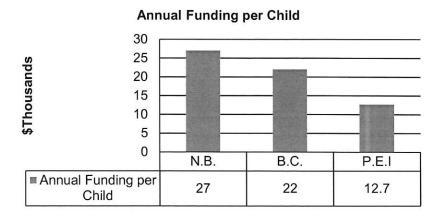


### Opportunity 6: Autism funding and program delivery controls Current state

### **Current state description & analysis**

- ▶ The Centres for Disease Control estimates that 1 in 88 children has been identified with an autism spectrum disorder. These statistics released in a March 2012 report indicate a 23% increase since 2009 and a 78% increase since 2007. (Source: Autism and Developmental Disabilities Monitoring Network -2012
- ▶ Due to increased diagnosis, the preschool autism program in New Brunswick has also experienced increased activity.
- ► There are a total of 6 agencies delivering autism programs in New Brunswick currently serving a total of approximately 475 children.
- ► The DEECD funds the agencies \$2,291/month for each child in the program for up to 20 hours/week of direct and indirect program hours. Indirect hours would include time spent in preparing programs, meetings, parent orientation and training. Direct hours are intervention hours spent directly with the child.
- An audit of the Autism Program and the participating agencies is currently underway. Preliminary observations indicate the following:
  - ► The current funding model does not specify a cap on indirect hours as a proportion of total hours. In some instances, children did not receive the amount of direct intervention hours agreed in the intervention plan. There is also no mechanism to review the appropriateness of the proportion of direct hours spent with each child.
  - ▶ In certain instances, there is a three month delay between the date the agencies began to receive funding and the date the child began to receive services. This results in the child only benefitting from 9 months of the total funding provided by the DEECD. Some agencies reimbursed the DEECD for the funding pertaining to service not delivered, however this was not consistent across all agencies.

### **Current state diagnostic**



- ▶ We compared funding models across three jurisdictions.
- Among the jurisdictions compared, New Brunswick has the highest level of funding.
- ➤ The BC funding model, provides funding directly to the parent and uses a reimbursement model for expenses incurred within defined guidelines.
- ► The PEI model allows for funding at 11.71 per hour of services plus 12.59% for employer related costs such as Canada Pension, Employment Insurance, Workers Compensation and Vacation Pay.

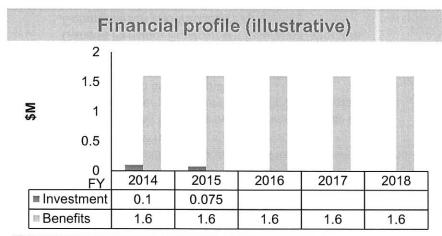


# Opportunity 6: Autism funding and program delivery controls Approach to implementation and other considerations

### Opportunity description

- ► There is an opportunity to enhance the accountability and controls for the funding and service delivery components for the preschool autism program.
- ▶ An audit of the Autism program and participating agencies is currently underway. Preliminary observations suggest control related opportunities of approximately \$2M as follows:
  - ► There is a three month delay in children receiving services from the date the agencies begin to receive funding:
    - ▶ Based on 66 new children a year not receiving 3 months of benefits, we calculate 25%\*2700\*66 = \$0.534M
  - ➤ There are instances in which, children are not receiving the 20 hours of direct and indirect time as required under the current funding model:
    - ▶ Based 475 children receiving on average 18 hours instead of 20 hours, we calculate 2 hours \*135 hourly rate \* 475 children \*12 months = \$1.54M
- ▶ These two opportunities result in total annual savings of \$2.1M
- ► Funding There is an opportunity to modify the funding model to include a cap on the percentage of time spent on indirect activities in order to maximize program benefits to the child. There were some instances noted where children did not receive the number of direct hours agreed in the intervention plan.

	High	Medium	Low
\$Million	\$2.1	\$1.6	\$1.05
FTEs	N/A	N/A	N/A



Financial Summary	LOW	HIGH
F14 Net Benefit	\$1.05M	\$2.1M
F14-F18 NPV of Net Benefit	\$4.3M	\$8.8M

### Non-financial profile

### Complexity

- ► The DEECD has limited capability to successfully realize the estimated benefits
- ▶ The level of change or transformation required is minimum

### Acceptability

- Positive impact on service efficiency and management of public funds
- ▶ No impact on FTEs



## Opportunity 6: Autism funding and program delivery controls Approach to implementation and other considerations

### Design & implementation strategy

- ► The upward trend in children requiring preschool autism interventions will continue in the future – The increasing volume of transactions further underscores the importance of stronger controls.
- ► The DEECD should require ongoing compliance audits of the agencies delivering preschool autism programs. Some of the considerations for review would include:
  - ► Reviewing the number of hours serviced per child against funding provided by the DEECD
  - Reviewing actual direct hours reviewed against the number of direct hours agreed in intervention plans
- ▶ It will be important to develop outcomes based metrics to measure the agencies effectiveness. The metrics should be tied to the objectives of the program.
- Other jurisdictions tie in the level of support or funding provided to the child to the severity of the need. Should the research support this structure, there is an opportunity to adjust the model such that each child receives a level of funding that corresponds to the level of need.

### **Assumptions**

- Benefits calculations are based on the following assumptions:
- ► There is a three month delay in children receiving services from the date the agencies begin to receive funding:
  - ▶ Based on 66 new children a year not receiving 3 months of benefits, we calculate 25%\*2700\*66 = \$0.534M
- There are instances in which, children are not receiving the 20 hours of direct and indirect time as required under the current funding model:
  - Based 475 children receiving on average 18 hours instead of 20 hours, we calculate 2 hours \*135 hourly rate \* 475 children \*12 months = \$1.54M

### Data Sources:

- Oracle Supplier Report by Agency 2012-2013
- ▶ Oracle Supplier by Activity 2012-2013
- Preschool Autism Standards June 2008

## **Opportunity 7: Transform the library system Current state**

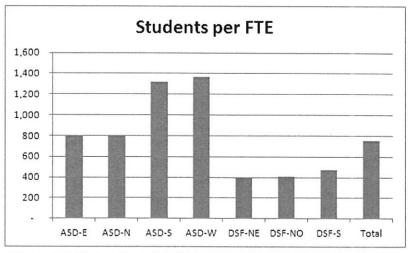
### **Current state description & analysis**

 In 2012, there were 317 school libraries within New Brunswick schools with 136 library staff maintaining the current collections for 102,580 students

District	Library Position (No. FTE)	Salary (\$)	Students (No.)
ASD-E	19.5	515,287	15,538
ASD-N	10.7	306,276	8,569
ASD-S	18.9	522,005	24,903
ASD-W	17.7	449,636	24,114
DSF-NE	27.4	714,670	10,651
DSF-NO	13.9	398,674	5,678
DSF-S	27.6	782,136	13,126
Total	135.6	3,688,683	102,579

- Current cataloguing and tracking techniques are behind current standards and more automated systems for coding books and providing on-line recording and location of information are not being utilized.
- ▶ Library workers are part of the CUPE union and require limited teaching and research skills to fulfil their current responsibilities. They are primarily caretakers of the collections and supervisors of students while in the library.
- ► There are no fully qualified librarian positions in the system and libraries hours are limited to 20 to 24 each week.

### **Current state diagnostic**



District	ASD-E	ASD-N	ASD-S	ASD-W	DSF-NE	DSF-NO	DSF-S	Total
Students per FTE	798	800	1,317	1,366	389	409	476	756

- ▶ New Brunswick's school libraries are under staffed when compared to external Benchmarks. Canadian Association of School Libraries data indicates that the acceptable number of Library assistants per student ratio's are approximately 1 FTE per 300 to 650 students.
- ► The funding of library collections is much lower than what is indicated in national benchmarking available from the Canadian Association of School Libraries:
  - ▶ National guidelines: \$26 to \$45 per student
  - ▶ NB funding: \$4 per student (2012 Anglophone Districts)
- ► As a result, it appears that the current level of support and staffing for libraries is not comparable to current trends, which may lead to ineffective learning results

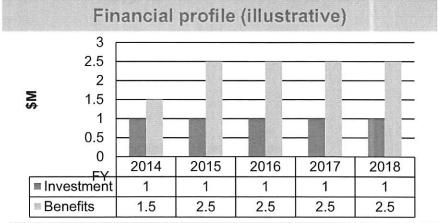
## Opportunity 7: Transform the school library system Opportunity definition

### Opportunity description

- An opportunity exists to transform the manner in which school supplementary and self directed learning resources such as school book collections are utilized that will largely eliminate the need for the current library staff.
- Libraries could be repurposed to act as a broader common learning centre within schools and utilize a portion of the current surplus teaching staff within the province to support this teachingbased concept.
- ► The concept is used in BC and New Brunswick has had demonstration projects in Tantramar High and Forest Hills Middle School
- ▶ A key aspect of the Library Learning Commons is to accommodate and support self directed learning through research, group discussion and one-on-one support using a variety of learning and research resources.
- ► This requires staff that have expanded competencies beyond the minimum requirements for the current library positions.
- ▶ It will essentially eliminate the need for the current librarian positions however, centralized cataloguing will be required to track inventory for a variety of resources.
- ▶ The librarian staffing costs with benefits in 2012 were \$4.0M and savings will range from \$2M to \$3M per year. Year-1 severance and on-going investments may be in the area of \$1M per year to get the initial concept implemented. Net on-going savings are as

tollows:	High	Med	Low
\$ Million	\$2.0	\$1.5	\$1.0
FTE	105	85	70

►There is also potential to integrate other school support resources into this common learning concept



Financial Summary	LOW	HIGH
F14 Net Benefit	\$0.0M	\$1M
F14-F18 NPV of Net Benefit	\$3.9M	\$8.7M

Note: some costs will be incurred for severance and investment would be required for resources, training and centralized cataloguing.

### Non-financial profile

### Complexity

- ► This concept would have a beneficial impact on pupils in the long term and the quality of education that will be delivered
- ▶ It may be seen as a negative change as there will be an elimination of positions in the schools
- ► The capacity and capability is generally in the system with upgrades required to adapt to the new approaches
- ▶ Physical changes maybe required to some libraries to provide more one-on-one support.

### **Acceptability**

- ► The change will encounter union resistance as the library workers are under the CUPE labour contract
- ▶ Teachers may see this change as a down grading of their skills



## Opportunity 7: Transform the school library system Approach to implementation and other considerations

### Design & implementation strategy

- It is recommended that DEECD identify a full-time individual to undertake detailed review of the concept that is currently in progress in several New Brunswick schools. This will provide an accurate picture of the following:
  - ► Capital requirements for any necessary facility upgrades to accommodate the concept
  - ► Training and staffing requirements to fully implement the concept
  - Changes to the program approach and staffing to accommodate any barriers and challenges that were encountered
- ▶ Initial discussions should be held with major stakeholders such as the District Education Councils to gauge support for the concept and Government to determine if the change is a "fit" with current and future priorities

### **Assumptions**

- ► The data collected on librarian wages and the number of positions is accurate within the payroll system
- ▶ On average, the ratio of librarian assistants to students holds true across the schools in New Brunswick. Likely the number of schools with small populations creates a lower level of librarian support.
- ➤ The number of teachers required to staff the new positions are available within the school system without any additional net new positions created.
- ► The union agreement with CUPE that governs the contract with the librarians allows the positions to be reclassified and eliminated
- The new positions are able to be defined within the teacher's contract
- Average salary costs are approximately \$27,000
- Benefits are calculated at 9% on average which was derived by dividing the total benefits of paid across the organization by the gross payroll.
- ► First year costs are largely severance and the following years are investment in cataloguing systems and resources.

### Data Sources:

▶ Oracle Payroll Report 2012



## Opportunity 8: Optimize the use of Education Assistants Current State

### Current state description & analysis

- ► There has been a 7% increase in the total number of Education Assistants in the school system between Fiscal 2009-10 and March 2013 during 2012-13, the Districts were funding 327.3 FTEs above approved funding levels (approved funding 2063 vs actual 2390 FTEs)
- ► The increase has been driven by increased diagnosis, and lack of standards for the situations in which an EA should be assigned to a student on a one to one basis.
  - ► Education Assistants were originally meant to be assigned to a classroom with one to one assignment only reserved for children with the most severe need.
- ▶ Standards governing the allocation of EAs are inconsistent across and within Districts. As well, the roles and responsibilities of EAs have not been clearly defined, resulting in:
  - Some overlap in activities between EAs and Resource Methods Teachers
  - ► EAs performing responsibilities which may be out of scope for their role
  - Inconsistent communication between teachers, parents and EAs

### **Current state diagnostic**

	Pupils (Sep 2012)	EAs (Mar 2013)	Current Pupil/EA Ratio	Proposed # EAs to bring ratio to 47.8
ASD-N	8,323	199	41.8	177
ASD-E	15,574	349	44.6	331
ASD-S	24,256	529	45.9	515
ASD-W	23,802	505	47.1*	505
DSF-NO	5,576	132	42.2	118
DSF-NE	10,334	256	40.4	219
DSF-S	13,214	367	36.0	281
Province	101,079	2,337		2,146

<sup>\*</sup> The best performing District is ASD-W at 47.1

- ➤ The results of internal benchmarking show that Anglophone West (ASD-W) is the best performing District with a 47.1 Pupil to Education Assistant ratio.
- ▶ As of March 2013, there were 2,337 Education Assistants in the school system. The proposed number of EAs required to achieve a 47.1 ratio in all the Districts, is 2,146 which allows for a reduction of 191 EAs

## Opportunity 8: Optimize the use of Education Assistants Opportunity Definition

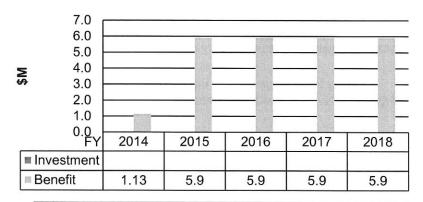
### Opportunity description

- ► An opportunity exists to optimize the use of EAs in the education system. There are two options analyzed to drive this opportunity.
- ▶ We calculated a high option by taking the approach to reduce the number of EA's in the system, by 327.3 FTEs, to the approved funding levels. This would results in total savings of \$7.5M.
- ► The low option is based on internal benchmarking which indicates that the ASD-W is the best performing District in terms of Pupil to EA ratio. Adjusting the remaining Districts to this benchmark would result in savings of approximately \$4.4M.
- ► The financial profile indicates a total annual benefit of \$5.9M based on the mid point between the options calculated above. There would be no severance associated with the reduction, per the collective agreement.

	High	Medium	Low
\$Million	\$7.5	\$5.9	\$4.4
FTEs	327	259	191

- ► To drive further sustainable benefits ,guidelines on the allocation of EAs should be developed to foster consistency across the Districts. Such guidelines should take into consideration the following:
  - Standard process to review and approve requests for Education Assistants. Currently requests come from various sources including parents, doctors, other medical professionals.
  - ► The level of severity that would require the allocation of a one to one EA. Outcomes based model where the child's progress and need for EA support to measured periodically.
  - Clear definition of the roles and responsibilities of classroom support staff including Education Assistants and Resource Teachers.

### Financial profile (illustrative)



Financial Summary	LOW	HIGH
F14 Net Benefit	\$2.6	\$4.4
F14-F18 NPV of Net Benefit	\$17.9	\$30.8

### Non-financial profile

### Complexity

- ► Consensus from various internal stakeholders groups that excess EA capacity exits to support the achievement of this benefit and that roles need to be better defined
- ► The DEECD has some ability to influence the decision although control rests at the Provincial level
- ▶ The level of change or transformation required is low

### Acceptability

► This is a sensitive political issue as it is linked to the Inclusion strategy.

## Opportunity 8: Optimize the use of Education Assistants Approach to implementation and other considerations

### Design & implementation strategy

- ▶ In the near term the focus needs to be on reducing EA levels to the 2011-12 funding levels. A further review needs to be done to determine the appropriate number of EA's that are required to support the objectives of the inclusion program. There has been an increased dependence on the use of EA's, however this may not be the best option for each child.
- ► The DEECD will need to assess what the level of need that warrants one on one attention
- ➤ Training of classroom support staff including EA's was also identified as an area of need. With increased diagnoses for Autism, there is a need to make certain EA's are appropriately trained to apply proven intervention methods.
- ► The DEECD will need to further review the transition to school program for pre-schoolers who are diagnosed with Autism Spectrum Disorder. The early intervention goal is to reduce need for supports later in life. Increased success in this program should lead to the decrease in the level of EA's required in the school system.

### **Assumptions**

- Excess EA capacity exists to support the achievement of the estimated benefits.
- ► Further benefits and efficiencies are achievable beyond reducing the number of EA's through the development of standard guidelines on EA allocation, and clarifying roles and responsibilities of the various support workers including EA's, Resource Teachers, and other learning specialists.
- ► EAs are not entitled to severance pay, per collective agreement terms
- ▶ The approximate average EA salary used in calculations is \$22,890
- Number of EAs per District 2,337 as of March 2013, was verified with the school Districts
- ► Total enrollment of 101,079 was obtained from the 2012-13 school summary statistics (DM3658)

### Data Sources:

- DM3665-Professional and Support staff 2011-12.xlsx prepared by DEECD
- ► DM3672-Education Assistants by School 2011-12.xlsx" prepared by DEECD
- ▶ Part 2 Payroll Data 2012



## Opportunity 9: Rationalize and optimize school infrastructure Current state

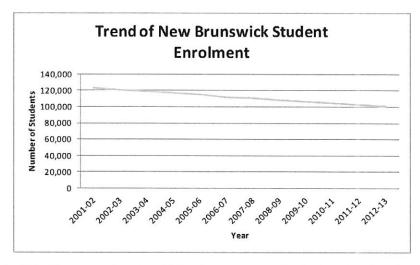
### **Current state description & analysis**

- ► There are 314 schools operating in the province for 2012-13 school year (222 in Anglophone Districts and 92 in Francophone Districts).
- Student enrolment has been declining by approximately 3.2% across the province.

Change In Number of Students	Change	2012-13	2011-12	2010-11
Anglophone	2,624	71,955	73,124	74,579
Francophone	718	29,124	29,455	29,842
Province	3,342	101,079	102,579	104,421

- ➤ A utilization study performed by the Office of the Comptroller (OOC) on school year statistics for 2010-2011 found that the utilization of the school infrastructure was 60.3%.
- ► This analysis updated the study using 2012-13 student enrolment and the utilization was determined to be 59.3%.
- ➤ The School Physical Plant Review for 2011-12 school infrastructure lists all of the deferred maintenance for each school totalling \$248M. This is a 1.9% (\$5M) increase from \$243M in the 2010-11 report.
- ► The operational and maintenance costs (excluding teacher's wages) for 2011-12 was \$138.4M.
- ► The review examined school infrastructure savings opportunities based on location and the following associated indicators:
  - ► Age of infrastructure
  - ▶ Utilization
  - Size (square metres per student)
  - ▶ Deferred maintenance cost per square metre
  - Operating costs per square metre
  - ► Operational cost per student

### Current state diagnostic



- ▶ New Brunswick's school infrastructure opportunity is not unique to the province. In Nova Scotia, the Halifax Regional School Board issued the report titled *Potential School Reviews for 2011-2012 School Year* (dated 01 March 2011), with the purpose of identifying a list of schools for possible permanent closure.
- ➤ The report states that, "a long term facility master plan was initiated in part to address the challenges of aging facilities, declining enrolments, unpredictable regional development, and limited funding."
- ► The District School Board of Niagara (DSBN) has a policy "to regularly review changing enrolment patterns, facility utilization and program requirement to ensure the students are provided the appropriate educational programs and facilities that are in line with the Board priorities and Ministry funding."



## Opportunity 9: Rationalize and optimize school infrastructure Opportunity definition

### Opportunity description

- ► The review identified 25.2% or 79 potential schools for closure (55 in Anglophone Districts and 24 in Francophone Districts).
- ▶This is estimated to be \$19.1M in annual operating and maintenance costs. At a minimum, we estimated 50% or \$9.5M in savings could be achieved. Additionally, \$27.7M \$55.3M in estimated deferred maintenance could be saved.

	High	Med	Low
\$ Million	\$19.1	\$14.3	\$9.6
FTE	155	116	78

- ► Major maintenance costs of \$2.8M -\$5.7M are included but are funded by the Department of Supply and Services
- ►The identified schools would affect 11,977 or 11.8% of the total enrolled student population.
- ▶ Additionally, 27 schools were identified for potential school wing closures (remaining schools with less than 50% utilization that were not selected for amalgamated based on the review).
- ►The average utilization could potentially be increased by 10% (59.3% to 69.8%) and the average age of the infrastructure could be lowered by 4 years (43.3 to 39.3 years).
- ► The following illustrates examples of schools with low utilization that potentially could be included in an amalgamation review:

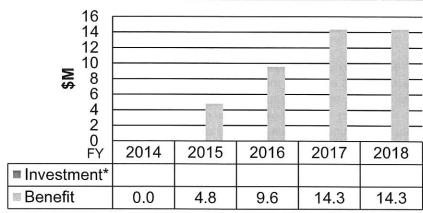
School	Maximum Capacity	2012 Enrolment	2012 Utilization	
Séjour-Jeunesse (K-8)	257	39	15.5%	
Académie Assomption (K-5)	411	70	16.9%	
La Découverte de St-Sauveur (K-6)	173	30	17.4%	
L'Escale-des-Jeunes (K-8)	539	104	19.0%	
Régionale Sainte-Anne (K-8)	565	118	20.7%	
L.E. Reinsborough (K-5)	725	156	21.0%	
Mgr Melanson (K-6)	420	111	26.5%	
Riverside Consolidated (K-5)	193	52	26.9%	
Lorne Middle (6-8)	287	77	26.9%	
Dorchester Consolidated (K-8)	205	54	27.5%	

\*Note: some investment would be required for studies and capital costs for school modifications, but we are unable to calculate in a high level review.

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NB DEECD - Program Opportunity Diagnostic

### Financial profile (illustrative)



Financial Summary	LOW	HIGH	
F14 Net Benefit	\$0M	\$0M	
F14-F18 NPV of Net Benefit	\$25.1M	\$50.2M	

An additional \$28 to \$55M in Deferred Maintenance would be avoided and partial school closures, although potentially identified have not been costed

### Non-financial profile

### Complexity

▶ Amalgamations are complex and require a detailed study to support any closures, which includes such things as potential capital requirements and operational logistics.

### Acceptability

- ▶ School amalgamation is a sensitive political issue and often have negative press coverage. Communities rarely like losing their educational facilities and have to make adjustments for their children's transportation schedules (especially for younger children).
- ▶ Public consultations are necessary to explain the rational and define benefits both financially and those associated with an improved sustainable infrastructure for the students.



# Opportunity 9: Rationalize and optimize school infrastructure Approach to implementation and other considerations

### Design & implementation strategy

- ▶It is recommended that DEECD undertake detailed studies of schools with low scoring associated indicators in the same sub Districts to determine the schools that should be amalgamated and those that should have wing closures.
- ▶This review was conducted at a high level, and a more detailed review would be able to determine amalgamation feasibility factors such as:
  - ► Capital requirements for any necessary upgrades to accommodate the potential amalgamations
  - ►The review did not consider the construction of any new schools to facilitate possible amalgamation, which may be a viable option in certain locations depending on cost
  - ▶ Review the logistics of student transportation to and from their new school to determine if the added transportation time is acceptable
  - ▶ Review the necessary logistics for changing the current grade level group for some schools to determine if it is feasible to facilitate amalgamation of certain schools
  - ▶ Review the supporting infrastructure to determine if the existing areas such as lab rooms, gymnasiums, music rooms, wash rooms are adequate to support the proposed changes with amalgamation
  - ► Consultations with the Districts and the communities affected to determine the support for possible amalgamations, as this is a sensitive issue
  - ► Consider the possibility of amalgamating Anglophone and Francophone schools within acceptable driving distances if the associated indicators are low scoring. This could be accommodated by utilizing different wings for each, with different break times

### **Assumptions**

- ▶The sub Districts of the District School Map Book were used to help identify schools that could potentially be amalgamated based on the distance between the schools.
- ▶The number of teaching stations per school were based on those identified in the OOC 2010-2011 study. Their data was compiled from both a physical count and measurement for 8 of the former school Districts, with the remaining 6 Districts taken from drawings and floor plans of schools.
- ▶The maximum number of students per teaching station was based on the maximum class sizes established in Article 20 of the New Brunswick Teacher's Federation Collective Agreement.
- ▶The OOC 2010-2011 study assumption for High Schools (grades 9 12) applied a factor of 0.8 to the operational capacity based on variability in student course selection and other factors affecting space utilization. This assumption was maintained in this review.
- ▶The maximum school capacity calculation was based on the maximum students per teaching station, the number of teaching stations and the 0.8 factor for high school (see point above).
- ▶The review assumed that the current grade level group for the schools could be changed to accommodate potential amalgamation. The analysis identified 37 schools that could potentially be changed, including schools becoming consolidated for kindergarten to grade 12. This would take special arrangements and scheduling, but there are precedence for this in both Anglophone and Francophone Districts such as: Centre Scolaire Samuel-de-Champlain and Beaverbrook.

### Data Sources

- ▶ Published Summary Statistics 2007-2008 to 2011-2012
- ▶ The School Physical Plant Review for 2011-12 school infrastructure
- ▶ Utilization Study by the OOC on school year statistics for 2010-2011
- ▶ Oracle Supplier by Activity 2011-2012



## Opportunity 10: Shared payroll and benefits Current state

### Current state description & analysis

- ► Across the 7 Districts, payroll was processed for 19,345 employees in 2012.
- ► The payroll process for the 7 Districts is administered by 42 staff (4 Part 1 and 38 Part 2.) The total staff complement includes 25 Payroll Clerks and 14 Payroll Supervisors with gross salaries exceeding \$1.6 million in 2012.
- ▶ The main responsibility of District staff is to generate gross salaries based on time and attendance information, and to keep up-to-date payroll related information, for example, hires and exits and bargaining agreement. Although all Districts use the "Gestion" software with the same setup, payroll data is stored in 14 separate databases, corresponding to the former Districts.
- NBISA keys in the output of the District in CADE, Computer Assistant Data Entry, and later EPAY (Genesis) software to generate the net salaries. The output of EPAY is eventually uploaded in Oracle. NBISA also manages the payroll of all Central staff.
- ► The main role of the payroll staff in Central Office is to check the work of NBISA (such as errors when re-entering pay data), manage benefits, and other tasks such as creating employee IDs.
- No estimate of time spent on main payroll tasks could be obtained; each District works independently
- Consultations with Finance resources in Central Office and District Offices, Directors of Education, Superintendents and DEC chairs indicate significant concerns over the efficiency of the Time & Attendance and Payroll system.

### **Current state diagnostic**

- ► EY external benchmarking indicates that the performance of the existing payroll function is below the median value.
- ▶ 4 out of 7 Districts reported their cycle time to process payroll. The average is between 4.5 to 5 working days half-way between the bottom and median quartile of a sample of 212 payroll processes across various organizations.
- "Gestion" dates back to the 60's, and, as a result, does not match the performance of newer payroll software. The 14 "Gestion" databases were never consolidated due to concurrent data access issues, for example, concurrent users can not access a record at the same time. Its capability to interface with other systems is limited ("Gestion" needs CADE to interface with EPAY). A new payroll system would not only replace both "Gestion" and CADE, but also the manual re-entry of data.
- Support for both systems is estimated to exceed \$365,000 a year -\$115,000 for "Gestion" and \$250,000 for CADE. No other cost estimate could be obtained in the limited timeframe of the study.
- ▶ The provincial government is considering the acquisition of a new payroll system to be deployed across all Departments. As the scope of this project extends beyond the Department, no other internal initiative has been undertaken. The current status of the provincial initiative is unknown to the Central Payroll at this stage.



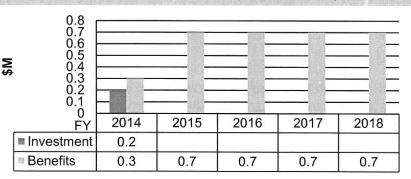
## Opportunity 10: Shared payroll and benefits Opportunity definition

### Opportunity description

- ▶ Improving the Time & Attendance and Payroll Process in terms of costs, service and risk levels, does not need to wait until the implementation of a new Payroll software, even though such a system would be required to capture the full potential. The transitional, short/medium term initiatives could begin with a process redesign based on best practices, considering among others the setup of a consolidated shared service or the partial or entire outsourcing of the process.
- ▶ Based on EY Internal and External Benchmarks, the potential recurring savings could be \$0.7M per year in the short to medium term, and later reaching \$1.3M per year with a new payroll software.
- ▶ Internal Benchmarking among the 7 Districts shows a potential for a reduction of 11-15 FTEs in total, out of 38 working in Districts:
  - ▶ If all Districts had 1supervisor for every 3 clerks, as in the Anglo-East District, 5 out of the 14 supervisors would be redundant.
  - Similarly, if each clerk managed on average the pay of 629 employees, as in the Anglo-East District, another 6 clerks would not be required out of a total of 25.
  - ► Furthermore, if overall District payroll workload was pooled to benefit from economies of scale, 15 staff, instead of the identified 11 above, would not be necessary out of the initial 38.
- External Benchmarking based on a sample of 175 payroll processes across various organizations shows that the 42 payroll FTEs could be reduced by:
  - ▶ 5 FTEs to match Median Staff Productivity performance,
  - ▶ 27.5 FTEs to reach Top 25% Staff Productivity performance.
- Co-location of the consolidated Time& Attendance and Payroll operations under one or two roofs, perhaps in less occupied schools, will contribute to maintaining community presence.

	High	Med	Low
\$ Million	\$1.3M	\$0.7M	\$0.2M
FTE	27.5	15	5

### Financial profile (illustrative)



Financial Summary	LOW	HIGH
F14 Net Benefit	\$0.0M	\$0.4M
F14-F18 NPV of Net Benefit	\$0.9M	\$4.7M

<sup>\*</sup> Excludes costs and benefits of implementing a new Time & Attendance and Payroll System and the setup costs of a one or two locations for shared Payroll.

### Non-financial profile

### Complexity

Redesigning the Time & Attendance and Payroll process and organization in the short/medium term would be constrained by legacy system limitation, and current outsourcing agreements with NBISA.

### Acceptability

- A Time & Attendance and Payroll system transformation is highly acceptable, and the organization has developed a business case which has not obtained DM approval.
- ► Co-locating functions would cause some displacement and/or retraining but would be acceptable to the hosting communities/districts.
- ► The process redesign requires input of Clerks and Supervisors, who may see their jobs disappear.

## Opportunity 10: Shared payroll and benefits Approach to implementation and other considerations

### Design & implementation strategy

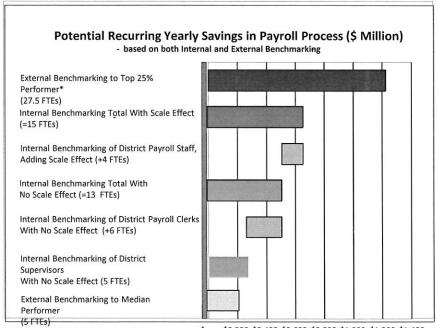
- ▶ As a new Payroll system is being selected at the Provincial level for implementation in the medium/long term, the Payroll process could be redesigned to reduce costs, mitigate risks, and improve service level in the short/medium term.
- ▶ Internal re-engineering of the Time & Attendance and Payroll process would save labour costs, mitigate risks, and improve service level, while easing the implementation of any new system, or alternatively, the partial or entire outsourcing of the process to an other entity (government related or not).
- Following a preliminary analysis, the next step would be to review the option to consolidate all payroll activities in a single or two shared service center locations.
  - ▶ If this option if not feasible, then recurring savings would be limited to \$0.5M. Based on a comparison of practices across the districts, all 7 Districts should be able to at least match the performance of the best District (Anglo-East).
  - If this option was accepted, then recurring savings in the range of \$0.7MM per year could be feasible. The cost of establishing new center (s) for shared payroll services would have to be consider ed. The current savings estimate is based solely on economies of scale achieved by levelling the workload and standardizing processes among the retained staff. Additional savings (not accounted for above) could come by further increasing the number of supervisors beyond 1 for every 3 clerks. The worked time of the 4 central staff should also be analyzed.

### Data Sources:

- Part 2 Payroll Staff Count 2012 prepared by DEECD
- ► Part 2 Payroll Data 2012

### **Assumptions**

- Includes only the Short/Medium term opportunity to improve Time & Attendance and Payroll process with legacy systems.
- Excludes labour costs to implement the opportunity.
- 2012 average gross salaries plus 9% as an estimate for benefits, of \$44.6K for Payroll staff, across roles (weighted average of \$45.8K) was used to estimate the savings.
- ➤ Severance payments: 50% are eligible, with average of 10 years at 3 3 weeks/year each
- ▶ If this opportunity is pursued through attrition, benefits will be delayed and severance avoidance will be minimal.



\$- \$0.200 \$0.400 \$0.600 \$0.800 \$1.000 \$1.200 \$1.400



### Opportunity 11: Alternative delivery of custodial services Current state

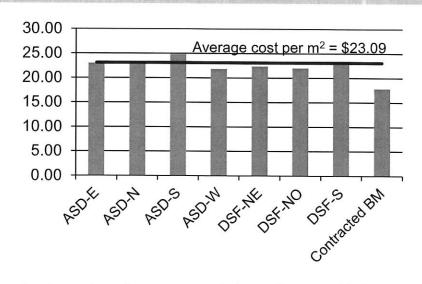
### Current state description & analysis

- ► The majority of Custodial services are performed at schools by employees of the school District.
- ▶ In 2011/2012 there were approximately 609 Custodians in the Anglophone Sector and 329 in the Francophone Sector (939 in total).
- ➤ The following table provides an overview of 2012 payroll costs for internal custodians and the square meters of school space that are serviced by them:

District	Gross salary	Benefits @ 9%	Total cost	Total school sq. meters
ASD-E	\$ 4,816,054	\$ 433,445	\$ 5,249,499	228,477
ASD-N	\$ 4,324,414	\$ 389,197	\$ 4,713,611	203,810
ASD-S	\$ 9,406,185	\$ 846,557	\$ 10,252,741	413,427
ASD-W	\$ 5,642,453	\$ 507,821	\$ 6,150,274	281,494
DSF-NE	\$ 5,585,185	\$ 502,667	\$ 6,087,851	272,148
DSF-NO	\$ 2,824,188	\$ 254,177	\$ 3,078,365	139,863
DSF-S	\$ 4,492,455	\$ 404,321	\$ 4,896,776	211,653
Total	\$ 37,090,933	\$ 3,338,184	\$ 40,429,117	1,750,872

- ► Currently, there are contracted custodial services being performed at 15 schools primarily in the Anglo School District West.
- ► Contracted custodial services are provided for approximately 118,000 m² of school space.

### **Current state diagnostic**



- As shown above, the average costs for employee provided custodial services in New Brunswick are \$23.09 per square meter of facility space
- ► Contracted custodial services in Anglo School District West were used as an internal benchmark and have an average cost of \$17.82 per square meter of facility space.
- Based on the gap between current average custodian costs per square meter and the Anglo School District – West experience, there is an opportunity to reduce the cost of custodial services.
- ► Consideration must also be given to the size of schools and the geographic distances required for custodians to service



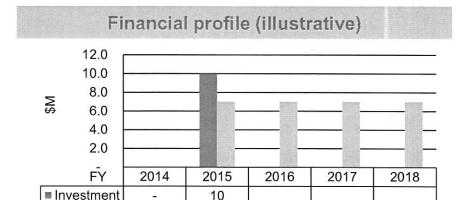
### Opportunity 11: Alternative delivery of custodial services Opportunity definition

### Opportunity description

- ► The opportunity is to move to a full outsourcing of the custodial services. The outsourcing option may provide an opportunity to improve responsiveness and quality of the work.
- ▶ By using the outsourced average cost per square meter of \$17.82 for Anglo School District West, the savings opportunity each year for contracting out services is approximately \$9.0M.
- ▶ Based on the different conditions experienced across the province with the range of benefits could extend as low as 50% of the opportunity (or \$4.5M each year). The following are the on-going net benefits:

	High	Med	Low
\$ Million	\$9.0	\$7.0	\$4.5

- ► Over a 5 year period, the NPV of estimated cost savings is between \$7.0MM for the outsourced option and \$23.3M for the performance improvement option
- ➤ Savings for the outsourcing option would begin in fiscal year 2015 with the expiry of the current CUPE contract that governs these workers.
- ➤ The investment reflected in year two for the outsourcing option is an allowance for severance costs estimated at 6 months of gross salary and assuming that there will be retirements, turn-over, and temporary positions that will not require full severance.



Financial Summary	LOW	HIGH
F14 Net Benefit	\$0M	\$0M
F14-F18 NPV of Net Benefit	\$7M	\$23M

7.0

7.0

7.0

7.0

### Non-financial profile

### Complexity

Benefit

- ► The level of change or transformation required is high which requires capabilities to make the changes and manage the stakeholders.
- ▶ It also requires changes to the collective agreement which may be difficult to achieve in 2014.

### Acceptability

- ▶ Impact on the clients (school condition) should be positive with increased responsiveness and there is a precedence to support it.
- ► There will be a high impact on staff with potential layouts and staff reductions for either scenario.
- ► The changes may result in conflict with government positions taken with CUPE and may be seen as unpopular.



### Opportunity 11: Alternative delivery of custodial services Approach to implementation and other considerations

### Design & implementation strategy

- ▶ A review should be conducted to determine if the cost of the current outsourced arrangement is obtainable broadly across the organization. Likely this will often improve the cost as the service will be contracted over a larger region.
- Situations and suppliers for each District and sub-region must be evaluated for cost effective availability of resources and reputable companies.
- ▶ As this is a politically sensitive issue, there will likely be a negative union reaction to the opportunity that will result in political pressure. This negative reaction can be mitigated by emphasizing the cost improvement impact of the change or using the comparison as leverage to change the basis of the collective agreement to include performance based cost and productivity targets.
- ▶ It will be important to work closely with the Districts and District Education Councils (DECs) to obtain support, communicate a consistent message and obtain the social licence from the various communities in implementing this initiative
- Common standards for work performance and quality should be developed and included in individual contracts and performance measures should be established and monitored on regular basis.

### **Assumptions**

- Custodial services costs within Anglophone Sector District West are completely captured and the service developed is to acceptable standards enough to act as an internal benchmark
- Outsourced custodial costs are complete and fairly represent experience in other jurisdictions.
- Payroll provided was from the 2012 calendar year and contains all custodial salaries
- ▶ Average custodial staff costs were obtained from the financial system for the period of the 2011/2012 fiscal year. The square footage of the schools within the Districts was extracted from reports prepared by the Department of Education staff. Neither have been verified for accuracy of completeness.
- ▶ A 9% factor for benefits was used and calculated as a percentage of overall benefits paid to salary. This was also extracted from the Oracle system.
- ► For the outsourcing scenario, changes can be made to the collective agreement when the current one in 2014 expires to make the changes required to enable either scenario to meet the savings targets.

### Data Sources

- ▶ Oracle Part 2 Payroll 2012
- Oracle budget to actual by sub-account 2012



## **Opportunity 12: IT efficiency Current state**

### **Current state description & analysis**

- An opportunity exists to reduce IT cost through consolidation of IT desktop / network support, infrastructure, applications and software license.
- Centralization and control of information technology devices and / or implementation of BYOD for students will be critical to control future spend
- ► The overall IT cost for 2011 2012 is approximately \$17M with a total FTE of approximately 125 in the Francophone and Anglophone Districts and the Department. Evidence supports that IT cost is in fact greater as computing devices are purchased from purchase cards and / or recorded in various codes such as educational materials.
- Two IT consortiums have been formed for each of the Francophone and Anglophone Districts to provide Desktop and IT support in the schools, District and education center's offices.
- ► The governance on controlling IT spend is fragmented at the District level. The disparate purchasing / management of business applications has resulted in redundant capabilities and licenses across the Department and higher cost.
- ▶ A proliferation of Apple and other computing devices has been noticed in the classroom and with administrative personnel and there is no asset management system in place to manage computing devices . We estimate that there are approximately 4,000 (excluding mobile phones) excess computing devices with a lack of standards which increases pressure on IT support . For example Apple TVs have been purchased by some Districts but they realized after fact that Apple TVs cannot be connected in schools because of incompatibility with the IT system. Therefore they cannot be used for education purposes and result in a real waste of resources.

### **Current state diagnostic**

The cost of IT was approximately \$17M in Fiscal year 2011 – 2012. However with the beginning of the consolidation in the Districts, we believe the IT cost for 2012 – 2013 will be approximately \$15M. and the IT spend as a percentage of Total Budget will be approximately 1.4%.

Total Budget of IT as a percentage of Total Budget				
Current Average Performance	1.4%			
Public Sector Mid Quartile comparison*	1.1%			
Public Sector Top Quartile comparison 0.8%				

<sup>\*</sup>The Nova Scotia School Board's performance is 1.2%



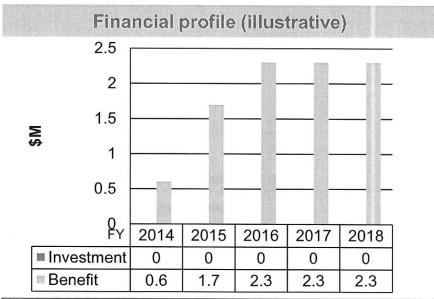
## Opportunity 12: IT efficiency Opportunity definition

### Opportunity description

- ▶ DEECD could seek to achieve mid-quartile public Sector performance for information technology by reducing IT spend by 0.3 percent over total budget. This would represent a cost reduction opportunity of approximately \$3M and brings down the IT cost to approximately \$12M.
- ► The low range has been calculated by assuming DEECD would be able to achieve half of the savings, meaning approximately \$1.5M.

	High	Medium	Low
\$Million	\$3	\$2.3	\$1.5

- This opportunity will require the following actions:
  - ► Optimize existing IT support organizations within the District, Department for Part 1 and 2
  - Consolidate network infrastructure management for Part 1 and Part 2
  - ► Inventory and consolidate critical information technology systems such as workforce management, school bus and student information systems and seek to replace or decommission home grown applications
  - Centralize device purchasing and implement asset management system to manage and track devices
  - Implement IT Governance process to facilitate and focus investment decisions



Financial Summary	LOW	HIGH
F14 Net Benefit	\$0.4M	\$0.8M
F14-F18 NPV of Net Benefit	\$5.3M	\$10.7M

### Non-financial profile

### Complexity

▶ Evaluation of real IT spending in order to allocate an adequate budget to the sector's IT shared service. As for now, Districts were using the flexibility they could find around their overall envelope to finance their IT spending.

### Acceptability

With the IT shared service, the Sectors are already going in the right direction. However a global plan and direction should come from DEECD in order for the new structure and organization to be fully accepted by the Districts.



### Opportunity 12: IT efficiency Approach to implementation and other considerations

### Design & implementation strategy

- It is recommended that DEECD establishes an overall strategy and vision around the Department and includes IT in their strategy plan.
- ► There should be official collaboration between the directors of the shared service and Department IT directors.
- ▶ While allocating budget to the District the finance director of each Sectors should allocate a budget for each the IT shared service and send it to each director of the service.
- ► The two IT shared services in the Sectors should do an inventory of all the devices and software existing in every Districts.
- The result of the inventory will be the base of the asset management system that needed to be implemented and managed by the shared service.
- ► The shared services should develop a centralize IT demand system and the Department should have a centralize procurement including IT.
- ➤ The management of the servers should be consolidate and done at the Department. Therefore, all the remain Districts that are still managing their own server should migrate their servers.
- ► The shared service should continue with the process of consolidation and standardization of all applications.

### **Assumptions**

- ► The benefits had been calculated with the assumption that DEECD will improve IT performance to the average benchmark. That means the total budget of IT as a percentage of the total budget would be 1.1%.
- ► IT cost as of April 18, 2013 for Fiscal Year 2012 2013 is approximately \$15.4M. We assume it would no change much by the end of the Fiscal Year 2013 and that means DEECD IT performance is approximately 1.4%.
- ➤ The cost saving will not be made in the first year. It will be done gradually, 25% the first year, 75% the second year before reaching 100% the third year.

#### Data Sources:

- Oracle IT Expenditure by activity code
- ► IT benchmarks for both the public sector and the Nova Scotia jurisdiction are from Ernst and Young report done for the province of Nova Scotia.



## **Opportunity 13: Shared finance organization Current state**

### Current state description & analysis

- ► An opportunity exists to implement a Shared Finance Organization with enabling architecture which will reduce financial back office costs and enable strategic financial management capacity.
- ► There are 89 FTEs associated with the Finance function across Part 1 and Part 2.

FTEs per Principal Finance Process	Central Office	Anglo Sector	Franco Sector	Total Sector	Total
Planning, budgeting, forecasting	5.5	9	9	18	23.5
Payroll (4 in C.O.; 2 allocated per Sector)	0	27	15	42	42
Accounts Payable (Note 1)	4.0	9.5	5	14.5	18.5
Other: general accounting & reporting, liaison, controls	1.5	2.5	1	3.5	5
Total	11	48	30	78	89

Note 1: See the Payroll and Benefits Opportunity for additional information

- ► Planning, budgeting and forecasting is driven by Central Office based on government platform.
- Accounts payable payments are largely provided for by NBISA. The AP functions within the Department include managing petty cash, i-expense, P-cards, reconciliations, journal entries. Accounts payable and minimal accounts receivable functions are performed in the Districts.
- Other general accounting functions, such as reconciliations, journal entries, internal controls and liaison functions between the Central Office and the central agencies account for approximately 5% of the Finance function.

### Current state diagnostic

### **Budgeting/Forecasting and Accounts Payable**

Measure	DOEECD	Benchmark	Industry	Service	Government
		Ranking	Wide	Industry	& Military
Planning / Budgeting and Forecasting	23.5 FTEs	Top Median Bottom		3.68 FTE 10.20 16.56	2.74 FTEs 3.80 14.30
AP FTEs	18.5 FTEs	Top Median Bottom	4.52 FTEs 11.33 29.41	6.68 FTE 12.44 25.19	

- ▶ These results place DEECD below the bottom performers in terms of number of FTEs involved in the planning-budgeting-forecasting process and in the bottom half of benchmarked industries in terms of number of FTEs dedicated to the accounts payable process.
- ► The processing of high volume transactions in diverse locations is not a leading practice. Canada's provincial and federal public administrations are trending towards centralized finance backoffice functions located in regional centres of excellence.



## Opportunity 13: Shared finance organization Opportunity definition

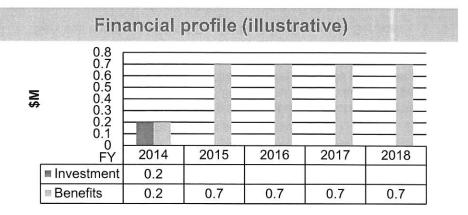
### Opportunity description

- ▶The medium level of saving is estimated based on achieving performance at the bottom service industry benchmark for the Planning-Budgeting-Forecast function and at the median service industry benchmark for Account Payable.
- ▶ The high level of saving is estimated based on achieving performance at the median service industry benchmark for the Planning-Budgeting-Forecast function and at the median service industry benchmark for Account Payable.
- ▶ The low end saving is estimated based on achieving performance at the bottom service industry benchmark for the Planning-Budgeting-Forecast function.

	High	Med	Low
\$ Million	\$1.1M	\$0.7M	\$0.4M
FTE	19.4	13.7	7

### **Execution improvement opportunity**

- ▶ Financial management governance, processes and performance frameworks should be examined to ensure that unintended limitations and inefficiencies are removed and that opportunities for collaborative, integrated strategic and operational planning and accountability frameworks are pursued.
- ▶The FTEs dedicated to planning and budgeting can be reduced and leveraged for more strategic advice and support if there is a fundamental revisiting of the budget process and investment in enabling infrastructure.
- ▶ Business processes for accounts payable should be standardized and consolidated within each Sector, and, to the extent possible, across both Sectors.



Financial Summary	LOW	HIGH
F14 Net Benefit	\$0.0M	\$0.4M
F14-F18 NPV of Net Benefit	\$1.5M	\$4.1M

Note: some investment would be required for studies and capital costs for information management systems, but we are unable to calculate in a high level review.

Assumptions are based on improving Planning-Budgeting-Forecast to the bottom benchmarks and Accounts Payable to the median benchmark. Payroll and Benefits are excluded. This does not assume any retention or repurposing of FTEs for more strategic roles.

### Non-financial profile

### Complexity

▶This is a moderately complex undertaking. The biggest challenges will be in agreeing to new budget parameters if the formulaic norms are changed (duality and equity); and in managing employee morale through further business transformation and employee departures.

### Acceptability

▶ Co-locating functions would cause some displacement and/or re-training but could be acceptable to the hosting communities/districts.



## Opportunity 13: Shared finance organization Approach to implementation and other considerations

### Design & implementation strategy

- ▶It is recommended that DEECD develop an integrated corporate planning and performance accountability framework with the participation of DECs, superintendents, educational directors and departmental leadership.
- ▶It is recommended that DEECD revise its funding norms in light of more robust outcome indicators, and an indicative logic model.
- ▶ It is recommended that DEECD review and approve a refreshed business case for time and attendance and payroll process and systems modernization.
- ▶This review was conducted at a high level, and a more detailed review would be able to determine standardization and co-location feasibility factors such as:
  - ▶ Costs of relocation
  - ▶ Employee and market demographics in potential sites
  - ► Change absorption capacity (the Finance function has been impacted by the recent re-organization and without investments in enabling technology first, staff might not be in a position to create a functional transition)
  - ▶ Possibility of leveraging NBISA for Part 2 payroll and accounts payable.
- ▶ Possibility of converting the breadth of the Anglo and Franco Sectors into 2 distinct Districts and design comprehensive, and clearer governance and accountability frameworks for the Districts, with an oversight function being exercised by the Department.

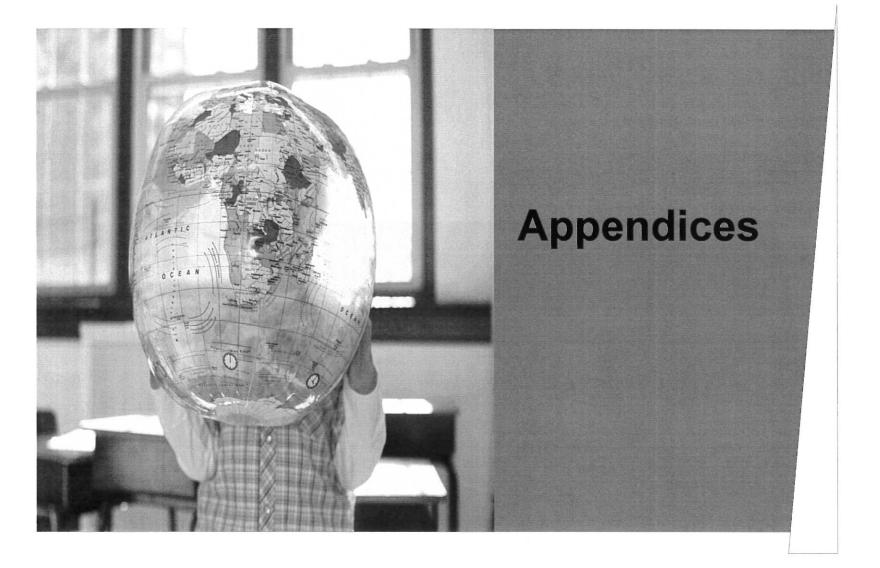
#### Data Sources:

- Part 2 Payroll Data 2012 and DEECD 2012 Organization Chart
- ▶ FTE Benchmarks are from the APQC Benchmarks tools

### **Assumptions**

- ▶The department's revenue was considered to be equal to the funding envelope and hence a figure of \$1B was used.
- ▶The Part 1 4 payroll FTEs have been allocated evenly to the Sectors as they are performing payroll for Part 2.
- ▶The payroll process was included in the scope of the Finance function.
- ▶FTEs were allocated to Finance processes based on post-restructure organization charts and 2011-12 employee pay lists. Part 1 was validated by the Director of Finance and Services and the Assistant Deputy Minister Corporate Services and Part 2 was estimated based on pay lists and organizational charts.
- ► Finance costs are based on actual 2011-12 data supplied to us via downloads from the department's financial accounting system.
- ►Where costs specific to a Finance process could not be obtained, an average salary of \$55,000 with a benefit of 9% of the salary was assigned to each FTE.
- ► The high cost saving is based on improving Planning-Budgeting-Forecast to the median benchmark and accounts payable to the top benchmark.
- ►We assumed 50 percent of annual saving on year 1.
- ▶ Severance assumptions: 10 years service at 3 weeks severance per year at average salary and 50% of affected FTEs eligible.
- ▶The Finance FTEs are from the payroll system.
- ▶ Finance FTEs who are neither planning-budgeting-forecasting nor payroll were assumed to spend 80% of their time on accounts payable and minor accounts receivable transactions and 20% of their time on other processes (e.g., general accounting, controls, liaison, reporting). This assumption was provided by the Director of Finance and Services and the Assistant Deputy Minister Corporate Services.





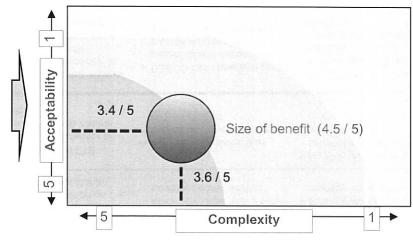
I. Initiative scoring methodology

# The evaluation framework considered and scored each initiative using the following criteria

### **Criterion & ratings calculation**

#	Criterion (1 = Unfavourable; 5 = Favourable)	Weight (%)	Score (1-5)	Rating (1-5)
1.1	Potential impact on clients and stakeholders	35%	4	1.4
1.2	Aligns with government policy / strategy / commitments	35%	4	1.4
1.3	Potential impact on staff	30%	2	0.6
Dime	ension 1: Acceptability			3.4 / 5
2.1	Readiness & capability to achieve successful outcomes	40%	3	1.2
2.2	Ability to directly influence and control	40%	4	1.6
2.3	Size & magnitude of challenge-capacity to execute	20%	4	0.8
Dime	ension 2: Complexity			3.6 / 5
3.1	1 year financial benefits*	50%	4	2
3.2	5 year Net Present Value of benefits*	50%	5	2.5
Dime	ension 3: Financial Benefit			4.5 / 5

### Mapping on prioritization framework



<sup>\*</sup> Includes investments unless specified, excludes any advisory fees

# The following guidelines were used for scoring initiatives on acceptability (1), complexity (2) and financial benefits (3)

#	Criterion	1 (Unfavourable)	2	3	4	5 (Favourable)
1.1	Potential impact on clients and stakeholders	➤ Significant negative impact (e.g. Efficiency of service, customer satisfaction, etc.)	<ul> <li>Material negative impact (e.g. Efficiency of service, customer satisfaction, etc.)</li> </ul>	► No impact (e.g. Efficiency of service, customer satisfaction, etc.)	<ul> <li>Material positive impact (e.g. Efficiency of service, customer satisfaction, etc.)</li> </ul>	► Strong positive impact (e.g. Efficiency of service, customer satisfaction, etc.)
1.2	Aligns with government policy / strategy / commitments	➤ Significantly contradicts policy / strategy / commitments	► Materially contradicts policy / strategy / commitments	No evidence as to government position on the issue; likely acceptable	▶ Materially aligns with policy / strategy / commitments	▶ Strongly aligns with policy / strategy / commitments
1.3	Potential impact on staff	<ul> <li>Significant FTE reductions, that cannot be achieved through natural attrition</li> </ul>	<ul> <li>Material FTE reductions, that cannot be achieved through natural attrition</li> <li>OR Significant or material impact on staff engagement</li> </ul>	➤ Small number of FTE reductions that cannot be achieved through natural attrition	No FTE reductions that cannot be achieve through natural attrition	<ul> <li>No FTE reductions that cannot be achieve through natural attrition</li> <li>AND positive impact on staff engagement</li> </ul>
2.1	Readiness & capability to achieve successful outcomes	▶ DEECD has significantly limited internal capability and capacity to support successful achievement of outcomes and this is a pre- requisite for success	▶ DEECD has significantly limited internal capability and capacity to support successful achievement of outcomes and this is a material factor in success.	▶ DEECD has limited internal capability and capacity to achieve successful outcomes but this is not a material success factor	▶ DEECD has material internal capability and capacity to support successful achievement of outcomes	▶ DEECD has all necessary internal capability and capacity to support successful achievement of outcomes
2.2	Ability to directly influence and control	Significant lack of ability to influence and control the successful achievement of outcomes	Material lack of ability to influence and control he successful achievement of outcomes	➤ Some ability to influence and control the successful achievement of outcomes	Material ability to influence and control the successful achievement of outcomes	<ul> <li>Significant ability to influence and control the successful achievement of outcomes</li> </ul>
2.3	Size & magnitude of challenge & capacity to execute	► Significant level of transformation required with high complexity	<ul> <li>Significant level of transformation required with medium complexity</li> </ul>	<ul> <li>Material level of transformation required with low –medium complexity</li> </ul>	▶ Low level of transformation required	▶ No transformation required
3.1	1 year financial benefits	▶ Less than \$0.1M	▶ Between \$0.1M and \$0.5M	▶ Between \$0.5M and \$1M	▶ Between \$1.0M and \$5M	▶ Greater than \$5M
3.2	5 year Net Present Value of benefits	▶ Less than \$1M	▶ Between \$1M and \$3M	▶ Between \$3M and \$5M	▶ Between \$5M and \$10M	▶ Greater than \$10M



## The following are the detailed results of the assessment:

	-	Acceptability	,		Complexity Financ			ncial Benefit			
ltems	Clients and Stakeholders	Policy Alignment	Staff Impact	Total	Readiness & Capability	and	Challenge /capability to execute	Total	1 Year Financial Benefit	Discounted CF	Total
1 Optimize the number of teaching positions	2.4	1.9	3.1	3.6	3.5	2.6	3.5	2.9	5.0	4.8	4.9
2 Privatize pupil transportation services	2.8	3.8	1.3	3.3	2.9	2.8	2.3	3.3	1.5	5.0	3.3
3 Optimize bus usage	2.1	3.9	2.3	3.2	2.3	3.1	2.1	3.4	1.5	4.8	3.2
4 Consolidate and optimize Procurement	3.3	4.4	4.3	2.0	2.8	2.6	2.5	3.3	2.8	4.0	3.4
5 Daycare Funding and Service Delivery Controls	3.3	4.4	4.5	2.0	2.4	3.5	2.8	3.1	3.9	3.3	3.6
6 Autism Funding and Service Delivery Controls	2.6	3.5	3.8	2.7	3.6	3.1	2.8	2.8	3.5	3.3	3.4
7 Rationalize library services	4.0	3.4	1.9	2.8	2.3	2.6	2.5	3.5	2.5	2.9	2.7
8 Optimize the use of Education Assistants	1.6	2.4	1.5	4.2	2.5	2.5	1.8	3.6	3.8	4.8	4.3
9 Rationalize school infrastructure	1.5	2.9	2.4	3.7	2.4	2.0	1.5	3.9	1.0	4.9	3.0
10 Shared payroll and benefits	3.9	4.0	2.5	2.5	2.5	3.0	2.0	3.4	1.9	2.0	2.0
11 Alternative delivery of custodial services	3.6	4.3	1.5	2.8	2.9	2.5	2.1	3.4	1.0	4.6	2.8
12 IT Efficiency	1.9	4.0	3.0	3.0	2.9	2.4	2.4	3.4	3.6	4.5	4.1
13 Shared Finance organization	4.3	4.1	3.4	2.0	2.6	2.8	2.3	3.4	1.8	2.8	2.3



II. High level change management strategy



# Planning for practical change management actions should be undertaken to ensure that initiatives are successfully implemented

Area	Definition	Outcomes	Change management considerations & actions
Leadership Support/ Alignment	Ensuring leaders understand, are informed, and sponsor and lead initiatives	<ul> <li>Leaders sponsor and support initiative and vision</li> <li>Desired behaviours are reinforced</li> </ul>	<ul> <li>Hold alignment sessions for leadership across the system to understand and align on initiatives.</li> <li>Hold alignment session for Department leadership</li> <li>Hold similar alignment session(s) for Superintendents and DEC Chairs and include key Department representation</li> <li>Consideration needs to be given to having both the Sectors work more closely together which can benefit the system in many ways (ie: increases quality / consistency of education for pupils, cost efficiencies in areas such as curriculum, transportation, etc., which can be put back into the overall system).</li> <li>As initiatives are identified to be pursued, identify clear leadership sponsorship for each initiative from the Department, the Sectors and the Districts; ensure alignment between the sponsors and hold regular workshops to provide a forum for discussion, risk mitigation, etc.</li> <li>Within each initiative, identify clear "owners" and build individual "leader action plans" and provide support/coaching to execute those plans and oversight and accountability to monitor progress.</li> <li>For key leaders within the overall system, build action plans to support the "big picture" as well as the individual initiatives.</li> <li>Understand other priorities, etc., within the system and plan accordingly by managing what needs to get done with the capacity of employees/organization.</li> </ul>
Stakeholder Engagement & Management	Understanding and enabling the engagement of stakeholders	<ul> <li>Stakeholders identified</li> <li>Capacity for change understood</li> <li>Support and tactics in place to ensure success</li> </ul>	<ul> <li>Identify a list of stakeholders and undertake a Stakeholder Impact Assessment.*</li> <li>Evaluates the level impact that the project will have on each stakeholder group</li> <li>Considers a living document to be reviewed and updated as required</li> <li>Drives a set of actions to improve the success of the initiatives</li> <li>Understand stakeholders and their readiness for change by administering a Change Readiness Assessment .*</li> <li>Builds an understanding of how and when to engage stakeholders throughout the project</li> <li>Provides a gauge of how big the "gap" is from current state to future state and indicates the level of change management support required; also indicates what type of support is required</li> <li>Allows for change to be quantitatively measured by re-administering the survey at set intervals</li> <li>Establish a network of "change agents" within the central Department and Districts to support employees.</li> </ul>

<sup>\*</sup> In the event that multiple initiatives are prioritized and undertaken, consideration should be given to doing these activities for all initiatives as a whole



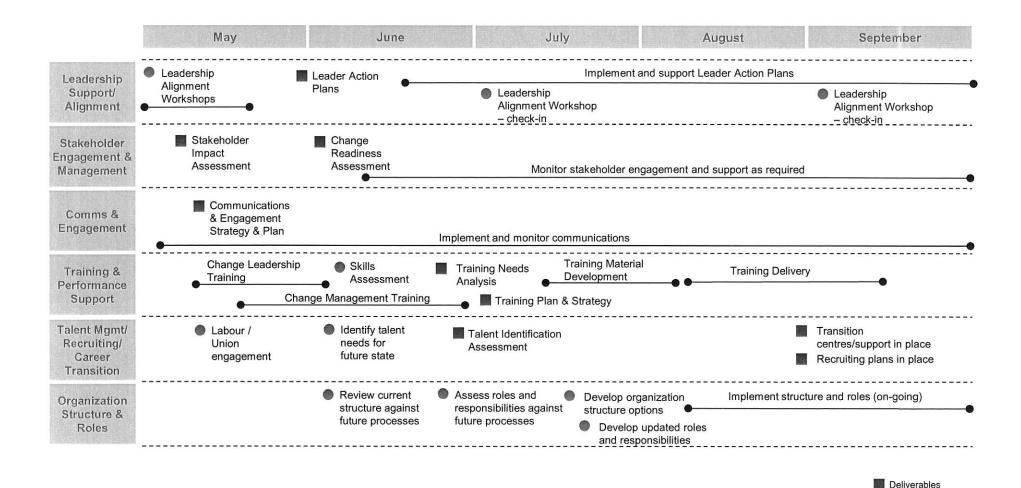
## **Change management considerations (continued)**

Area	Planning and communicating the right information to the right people at the right time	Outcomes      Clear understanding of the who/what/where/ when/how of communications     Targeted messages aligned to context/vision     Plan for timely delivery of communications     Ability to gather feedback	<ul> <li>Change management considerations &amp; actions</li> <li>Establish key principles for communication and engagement (i.e. level of transparency in communications, commitment to regular updates).</li> <li>Build a strategy that includes overall messages that are reiterated with each communication.</li> <li>Ensure consistent messaging between the two Sectors.</li> <li>Though, where there is a requirement for specific messaging to a Sector, ensure that it follows the same established principles and that the communication is tracked in the overall plan</li> <li>Look for opportunities to communicate in different ways: use different vehicles where it is deemed appropriate (i.e. an in-person message from a Manager versus an email)</li> <li>Develop a specific and executable communications plan.</li> <li>Outline key dates, messages, purpose, and message owner</li> <li>Use different communications vehicles (i.e. Town Halls, video conference, podcast, email) and build a central repository of information to be accessed by employees</li> <li>Link to the Stakeholder Impact Assessments</li> <li>Equip managers with information in order to be able to engage and support their direct reports and teams (i.e. Manager Tool Kit).</li> </ul>				
Communication & Engagement							
Training & Performance Support	Focusing on building the skills and capacity for the future state	<ul> <li>Understanding of skills within the organization</li> <li>Plan for timely delivery of training</li> <li>Employees have the skills to do their jobs</li> </ul>	<ul> <li>During early stages of the project, consider change leadership training for leaders and managers and change management training for employees equipping them with tools and skills to help manage the change journey.</li> <li>Conduct a skills assessment to understand the "as is" skills and map this information against the required skills for the future state.</li> <li>Execute a training needs assessment in order to pinpoint the right training for each audience.</li> <li>Develop the instructor and end user materials with user guides, references, and online support.</li> </ul>				
Talent Management / Recruiting / Career Transition	Managing, assessing, developing, and transitioning talent within the organization	<ul> <li>Identified talent within the organization against skills, competencies and roles</li> <li>Clarity on new roles to be recruited</li> <li>Transparent process and support available for any transitioning employee</li> </ul>	<ul> <li>Understand labour environment and engage union/labour leaders (may require connection into provincial HR services); understand information/communication requirements.</li> <li>Identify talent requirements for the future state (i.e. skills, competencies) and conduct a talent identification assessment to understand what is currently in place.</li> <li>Understand any FTE implications of implementing the future state and review attrition/retirement numbers.</li> <li>Build out recruiting plans.</li> <li>Develop support for transitioning employees through transition centres or other formal supports.</li> </ul>				

## **Change management considerations (continued)**

Area	Definition	Outcomes	Change management considerations & actions				
Organization Structure / Roles	Organization structure and roles are aligned to achieving the future state vision	<ul> <li>Organization structure supports the future state</li> <li>Employees are clear on roles, responsibilities and work processes</li> </ul>	<ul> <li>Review the overall structure within Department and the Districts evaluating it against work processes, functions and service delivery to the Sectors and Districts</li> <li>Review roles with within Department and the Districts that are similar in nature ensuring that there is no duplication/overlap and that there is consistent service delivery in both directions</li> <li>Support the Districts as they continue to settle into their new post-amalgamation structures</li> <li>For the key administrative processes (i.e. Finance, HR, IT, Procurement), clarify the roles and responsibilities of the central Department with what resides within the Districts</li> <li>For Curriculum focused roles, consider reviewing roles and responsibilities for portions of the curriculum where there is a high degree of commonality; develop centrally and implement locally</li> <li>For governance and executive oversight roles, review the mandate, authorities and level of oversight to ensure they are aligned with no contradictory direction, there is no overlap or gaps, information requirements of all parties are satisfactory, and transparency is built into the system.</li> </ul>				

# The high-level change management strategy will be based on priority and timing of initiatives; the change management plan will be customized further to reflect what is required for support





Key activities

III. Example of project work plan

## Example of a high-level work plan by initiative

	F13/14	F14/15	F15/16	F16/17	F17/18	F13/14	FTEs Savings
	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	4 Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Savings	
Wave 1							
1.Optimize the number of teaching positions							
Consolidate and optimize procurement							
5. Daycare Funding and Service Delivery Controls							
6. Autism Funding and Service Delivery Controls							
Wave 2							
Privatize pupil transportation services				N			
3. Optimize bus usage			Oli				
7. Rationalize library services		. 00					
10. Shared payroll and benefits	orillustra	MO,					
11. Alternative delivery of custodial services							
12. IT Efficiency	:11113						
13. Shared Finance Organization	- ( )						
Nave 3							
B. Optimize the use of Education Assistants							
9. Rationalize school infrastructure							
Program and change management							
Benefits realization							
TEs							