## Knowledge Is Power:

Toward a Quebec-Wide Effort to Increase Student Retention



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Report of the Action Group on Student Retention and Success in Quebec

# "Knowledge Is Power"

-Francis Bacon (1561–1626)

## Foreword



Promoting student retention is nothing less than rescuing our children from the life of poverty, ignorance, exclusion and distress that awaits them if they drop out of school.

Modern society offers our youth unprecedented means for achieving their full potential. We live in a fascinating world, where

borders are disappearing even as technological change fuels the most ambitious dreams. For today's youth, the sky is the limit—at least for those with access to the new media.

Staying in school validates their greatest hopes, the possibilities that lie dormant within them.

In our society, a high school or vocational diploma is the price of admission for taking advantage of the development, training and specialization tools required to succeed in life. In Quebec, however, our best efforts are falling short. Despite all the resources devoted to promoting student retention, our education system lets nearly one in three students fall through the cracks: 30%<sup>1</sup> of our youth celebrate their 20th birthday without a high school or vocational diploma. Beyond the human tragedies that loom over dropouts and their families for their entire lives, imagine the disaster in store for a province where barely two working-aged people will have to support five people age 65 or over.<sup>2</sup> That is what awaits us in Quebec just two decades down the road. As citizens, we felt compelled to take urgent action. The ultimate goal of our civic initiative is to significantly increase, within a set time, Quebec's high school and vocational school graduation rate. While our initiative clearly relates to public policy, it is first and foremost a citizens' initiative, one that stems from the recommendations in my book *Si on s'y mettait...*, whose recurring theme for propelling Quebec to new heights remains, far beyond any other initiative, education.

The Action Group that outlined our action plan—and to whose members I offer my warmest thanks demonstrated that Quebec has what it takes to bring together leading experts, organization heads, business people and government officials to develop, in record time, high-performance action models perfectly adapted to the needs of every region of the province.

I am especially grateful to McKinsey & Company, the managing director of its Montreal office, Éric Lamarre, and his entire team for their exceptional work, done free of charge as a contribution to Quebec society. I also offer my warm thanks to Michel Perron, professor at the Université du Québec à Chicoutimi and holder of the Chaire UQAC–Cégep de Jonquière sur les conditions de vie, la santé et les aspirations des jeunes, as well as the Conseil régional de prévention de l'abandon scolaire au Saguenay–Lac-Saint-Jean (CRÉPAS), for their outstanding contribution to the birth of this project of which I am very proud.

<sup>1</sup> Ministère de l'Éducation, du Loisir et du Sport.

<sup>2</sup> Institut de la statistique du Québec.

This proposal suggests ways to promote student retention and success. Make it your own. Adapt it to your region's needs. My only hope is that we can all work together to support our youth to the fullest possible extent.

L. Jacques Ménard, O.C.

Chair of the Action Group on Student Retention and Success President, BMO Financial Group, Quebec Chairman of the Board, BMO Nesbitt Burns

## McKinsey & Company

McKinsey&Companyisamanagement consulting firm that helps private companies, government organizations, foundations and associations meet their strategic challenges. Present in more than 50 countries, its consultants provide clients with advice on strategy, operations, organization and technology. For more than 80 years, the firm has remained faithful to its mission of acting as a trusted advisor to the world's leading businesses, governments and institutions.

The team at McKinsey's Montreal office supported the work of the Action Group. At the heart of the project, the team performed research and analysis, consolidated the group's recommendations and oversaw the writing of this report.

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## **Executive Summary** Knowledge Is Power: Toward a Quebec-wide Effort to Increase Student Retention

## A citizens' initiative

Concerned by the scope of Quebec's student retention problem, members of Quebec civil society formed an action group made up of representatives of organizations that work in dropout-related fields, relevant government departments, business people and experts whose work is connected to the issue. The Action Group's goal was to spark a Quebec-wide effort to increase student retention.

This report will be of interest above all to people who work with at-risk youth in every region of the province. It is also addressed at every citizen who is concerned about the dropout rate and, more broadly, poverty in Quebec.

The Action Group made every effort to base its approach and recommendations on documented facts. Toward that end it consulted more than 100 stakeholders, including representatives of the Instances régionales de concertation sur la persévérance scolaire et la réussite éducative (IRC) and of all levels of government and civil society. The team also travelled to Mont-Sainte-Anne to take part in the Journées interrégionales sur la persévérance et la réussite scolaires, a province-wide workshop on student retention and success that was the first such event held in Quebec.

### A serious and complex problem

Besides being an important tool for fighting poverty, education is nothing less than the key to the sustainable social, cultural and economic enrichment of Quebec society. We can be proud that our education system turns out graduates who are relatively skilled in comparison to their peers around the globe.<sup>3</sup> However, over 30% of Quebecers reach their 20th birthday without a high school or vocational diploma,<sup>4</sup> which has serious repercussions for those individuals and for society as a whole. Indeed, the dropout problem can be seen as part of the broader issue of the fight against poverty.

In economic terms, the dropout phenomenon represents lost government revenue of \$120,000 per dropout (present value)<sup>5</sup> in the form of uncollected sales and income taxes and additional social spending. If we consider all dropout-related costs, the monetary loss to Quebec society totals \$1.9 billion (present value) per cohort.<sup>6</sup>

The dropout problem is a complex one, with many determinants that vary considerably from individual to individual and community to community. Dropping out is less a spontaneous act than the result of a series of factors, some of which come into play in early childhood.

Individuals often graduate from vocational programs after age 20, which increases the dropout rate as measured at that age. The low graduation rate can also be partially explained by our society's attitudes toward education: Quebecers have been found to place less value on education than do Canadians as a whole.<sup>7</sup>

## Building on existing Quebec initiatives

Efforts to promote student retention are already well underway in Quebec. Many people in every part of the province are devoting time, energy and other resources to the problem. They come from all walks of life and a variety of backgrounds, a diversity that reflects the need to address the myriad determinants of school leaving and to adapt solutions to communities' particular realities. They are involved with a wide range of programs and initiatives, led by

<sup>3</sup> Based on rankings in the international standardized PISA test, OECD.

<sup>4</sup> Ministère de l'Éducation, du Loisir et du Sport.

<sup>5</sup> Analysis by McKinsey & Company; see section 2.

<sup>6</sup> Analysis by McKinsey & Company; see section 2.

<sup>7</sup> Gervais, M. L'éducation : l'avenir du Québec, 2005.

the government and others, that address the entire spectrum of youth issues.

Although this report cannot do justice to every one of the hundred-plus programs and initiatives that directly or indirectly affect student retention in Quebec, it is clear that we should build on three well-established initiatives:

- Early childhood services, including educational childcare centres (CPEs) and integrated perinatal and early childhood services (SIPPEs), which should be maintained and improved, in particular by making them more accessible to the most disadvantaged populations.
- The *Agir autrement* intervention strategy, which rightly focuses on high schools with very high dropout rates but whose approach and interventions should be improved in light of the best practices described in this report.
- Community innovation and mobilization initiatives (e.g. CRÉPAS and the Fondation pour la promotion de la pédiatrie sociale), which are successfully fostering community involvement and pooling available resources to produce lasting change in communities.

## Learning from the best practices outside Québec

Sources of inspiration can also be found beyond Quebec's borders. Several initiatives have raised the graduation rate, sometimes in spectacular fashion. An overview of best practices outside the province reveals several particularly promising models that could inspire future initiatives in a Quebec-wide effort to improve student retention:

 Pathways to Education, a community initiative that has helped raise the graduation rate in Toronto's Regent Park neighbourhood from 44% to 92%,<sup>8</sup> appears to be a very promising model for Quebec's high-density disadvantaged areas.

- Check & Connect provides an effective intervention model for at-risk high schools. Originally implemented in Minnesota, the program reduced the dropout rate by one-third among its study group.<sup>9</sup>
- High/Scope Perry Preschool Program was developed in Michigan in the 1960s. It is comparable to Quebec's educational daycare program in that it focuses on early intervention with disadvantaged youth. Perry Preschool has demonstrated its effectiveness by reducing the non-graduation rate at age 27 by 38%.<sup>10</sup>
- The Career Academy program was founded in Philadelphia in 1969 with the aim of meeting the needs of high school students interested in vocational training. The program, whose pilot version helped reduce the dropout rate by one-third among a cohort of about 500 students,<sup>11</sup> is now in place in over 2,000 schools in the United States and is increasingly popular in other countries.

An examination of the successful initiatives reveals five recurring themes that should also form the foundation for a prevention-oriented Quebec-wide effort to increase student retention:

- Find strong leaders to promote the cause in communities.
- Develop the initiatives in a spirit of partnership among government, civil society and business.

- 10 Child Trends; High Scope Educational Research Foundation.
- 11 Kemple.

<sup>8</sup> Pathways to Education.

<sup>9</sup> What Works Clearinghouse.

- Develop youth-centred initiatives. The work of mobilizing and involving local and regional players should focus on personalized support and constant follow-up with children and their families.
- Provide adequate financial support. An investment of \$10,000 to \$20,000 per at-risk youth (invested over three to five years) has typically been required in order to reach the set objectives.<sup>12</sup>
- Measure results in order to prioritize effective actions and continuously improve the interventions.

### The action plan

The Action Group proposes that Quebec society-all levels of government, the education sector, civil society and the business community-work together toward a single goal: by 2020, increase the graduation rate among under-20-year-olds to more than 80%. The Action Group recommends ten specific actions for achieving that goal, all of them designed to mobilize resources at the provincial and regional levels and focused strongly on direct action at the local level. Success also requires lasting provincewide partnerships among government bodies, the education sector, civil society and business. The proposed actions are rooted in Quebec's existing networks, structures and resources. They leverage the knowledge acquired through past experience in Quebec and elsewhere. Continuous evaluation of projects and measurement of results and costs are integral to each of the ten actions.

The proposed actions are :

 Build a Quebec-wide consensus on the need to promote education and student retention. Reshaping Quebecers' educationrelated attitudes and behaviours is essential to achieving a substantial and sustainable improvement in student retention rates. To underscore the importance of this issue, it is necessary to mobilize provincial, regional and local players. Likewise, civil society and the business community should create initiatives to promote student retention, such as a certification program for companies that adopt practices favouring a healthy work/ study balance.

- 2. Strengthen regional involvement in student retention. Strengthening existing and future organizations will help them provide tangible, integrated support to local initiatives and to projects that have a positive, measurable impact on the dropout rate.
- 3. Expand the support services available to future parents, parents and o- to 5-year-olds from disadvantaged backgrounds. It is essential to enhance Quebec's daycare and integrated perinatal services with a view to improving student retention and making these programs as accessible as possible, particularly for the children and families at highest risk.
- 4. Develop community-based pilot projects complementary to daycare services—that target at-risk o- to 5-year-olds in disadvantaged homes and smooth their integration into primary school. It is necessary to support efforts to reach the parents of disadvantaged children and offer them alternative, community-based daycare services. The Action Group recommends that three to five disadvantaged neighbourhoods where services do not meet identified needs be selected for pilot projects.
- 5. **Promote and introduce best practices to reduce educational lags in primary school.** The Action Group considers it essential to identify

educational lags in primary school, provide personalized assistance and monitor children's progress. The most promising existing programs will be strengthened and about ten pilot projects will be launched in the most at-risk areas. The goal will be to develop new approaches and measure the results of existing approaches.

- 6. **Strengthen the** *Agir autrement* **strategy with proven intervention methods.** Intervention methods used at the high school level should make it possible to identify high-risk youth, provide them with support services and measure their progress. To accomplish this, methods should incorporate lessons learned from the *Agir autrement* strategy, draw inspiration from proven best practices (such as Check & Connect) and be adapted to specific conditions in targeted schools. The new methods could initially be introduced in 10 to 20 at-risk schools before being extended to 100 to 120 high schools with very high dropout rates.
- 7. Set up community-based projects for atrisk high school students in the most disadvantaged neighbourhoods. Disadvantaged urban neighbourhoods, where dropout rates tend to be high, provide a special opportunity to see the results of targeted interventions. It would be desirable to launch intensive, multi-faceted community intervention programs in 15 to 20 disadvantaged neighbourhoods across Quebec, inspired by the Pathways initiative but adapted to the target communities.
- 8. Facilitate and encourage transition to vocational training. To achieve this, it will be necessary to support more flexible educational pathways (for example, by building bridges between the general, vocational and technical streams), provide appropriate complementary

services for students in this stream and better promote vocational training and trades with the aim of changing preconceptions about them.

- 9. Add student retention incentives and performance management tools to the education system, taking advantage of the act recently passed for that purpose. In the spring of 2008, the education, leisure and sports minister tabled Bill 88, which aimed to increase school boards' and schools' responsibility for student success. The *Act to amend the Education Act and other legislative provisions*, passed in October 2008, could make it easier to reach student retention targets through additional measures.
- 10. Create a Quebec-wide body for joint action on student retention as part of a partnership involving government, education, civil society and business. This body's five roles will be to encourage the coordination and connection of interventions; disseminate lessons learned and best practices; provide specialized expertise when needed; oversee evaluation of the measures implemented; and ensure a sustained student retention effort.

Significant investments will be required if the objectives set out in this report are to be reached. During the first three years, when several of the actions will be in a pilot phase, the cost will run from \$35 million to \$65 million per year. Subsequently, an annual investment of \$140 million to \$240 million will be required if all pilot projects are widely deployed. These investments should be considered alongside their expected dividends, specifically the collection of one third of the \$1.9 billion in annual lost revenues. We will also need the discipline to measure the results and invest in the most successful solutions.

A project of this complexity and magnitude will require commitments from many key players, because the fight against dropping out is everyone's business. It will therefore be essential to define everyone's roles and responsibilities very clearly for each of the proposed actions.

Improving student retention will enrich Quebec socially, culturally and economically. An effort of this kind also has the potential to be a turning point in the fight against poverty. Although the challenge is huge, Quebec has what it takes to succeed.

## Section 1 A Citizens' Initiative

Concerned by the scope of Quebec's student retention problem, members of Quebec civil society formed an action group made up of representatives of organizations that work in dropout-related fields, relevant government departments, business people and experts whose work is connected to the issue.

The Action Group's goal was to spark a Quebecwide effort to increase student retention. Through its work, the Action Group hoped to achieve the broadest possible consensus among its members while recognizing that it was unrealistic to expect to reconcile every point of view, in part due to the tight deadline that the group had set itself.

This report will be of interest above all to people who work with at-risk youth in every region of Quebec. It is also addressed at every citizen concerned about the dropout rate and, more broadly, poverty in Quebec.

### Methodology

The Action Group based its approach and recommendations on documented facts. The work team used recognized data and relied on solid research and measured results. More than 120 works were identified and studied (Appendix F).

The team involved some 75 stakeholders in its work (Appendix E), including representatives of the Instances régionales de concertation sur la persévérance scolaire et la réussite éducative (IRCs), the regional sections of the Ministère de l'Éducation, du Loisir et du Sport, teachers, public and private foundations and community organizations.



### Instances régionales de concertation sur la persévérance scolaire et la réussite éducative

The Instances régionales de concertation sur la persévérance scolaire et la réussite éducative (IRCs) are bodies mandated to support the development of regional initiatives targeting a region's specific dropout problem. As promoters of inter-level and inter-sector action, the IRCs play a pivotal role in the effort to decrease the dropout rate. The IRCs' partners include the Ministère des Affaires municipales et des Régions, the Ministère de la Santé et des Services sociaux, the Ministère de l'Éducation, du Loisir et du Sport, the Ministère de la Famille et des Aînés, members of school boards, post-secondary institutions, regional boards of elected officials and regional representatives. There are 13 IRCs in Quebec.

The IRCs' approach is based on four intervention areas:

- Making community members aware of their respective roles in increasing student retention (e.g. raising awareness about work/ study balance)
- Mobilizing the players around action plans that produce structural change
- Implementing community-based and multi-sectoral activities (e.g. conferences, training)
- Using research as a means of disseminating knowledge.

The Action Group held six meetings. Its members also took part in workshops and subcommittee meetings between September 2008 and February 2009.

The team also travelled to Mont-Sainte-Anne for the Journées interrégionales sur la persévérance et la réussite scolaires, an event that brought together more than 400 delegates from every region of Quebec on October 30 and 31, 2008. An initiative of the IRCs, the Journées interrégionales gave attendees the opportunity to learn about the latest work on student retention and meet with specialists and colleagues. The work team led workshops and took note of participants' views, all with an eye to developing recommendations. Attended by representatives of civil society, government and business, the event was the first of its kind held in Quebec.

Appendix A contains a list of the IRCs.

## Section 2

## The Dropout Rate in Quebec: a Serious and Complex Problem

Besides being an important tool for fighting poverty, education is nothing less than the key to the sustainable social, cultural and economic enrichment of Quebec society. We can be proud that our education system turns out graduates who are relatively skilled in comparison to their peers around the globe. However, too many young Quebecers do not complete their high school or vocational education, a fact that has serious consequences for the individuals concerned and for society as a whole. While the problem is complex, it is not unsolvable. Indeed, Quebec has already shown that it can create effective community initiatives and develop social innovations.

### The 70/30 problem

Young graduates from the Quebec education system are well educated—especially in mathematics, reading

Students who stay in school do well

#### Figure 2

Ranking of OECD* countries, 2006 PISA tests**				
Mathematics	Reading	Science		
1 Taiwan	Korea	Finland		
2 Finland	Finland	Hong Kong		
3 Hong Kong	Hong Kong	Canada		
4 Korea	Canada	Quebec		
Quebec	Quebec	Taiwan		
5 Netherlands	New Zealand	Estonia		
6 Switzerland	Ireland	Japan		
7 Canada	Australia	New Zealand		
8 Macao – China	Liechtenstein	Australia		
9 Liechtenstein	Poland	Netherlands		
10 Japan	Netherlands	Korea		
11 New Zealand	Sweden	Liechtenstein		
12 Belgium	Belgium	Slovenia		
13 Australia	Estonia	Germany		
14 Estonia	Switzerland	United Kingdom		
15 Denmark	Japan	Czech Republic		
16 Czech Republic	Taiwan	Switzerland		
17 Iceland	Germany	Austria		
18 Austria	United Kingdom	Macao – China		
19 Germany	Denmark	Belgium		
20 Slovenia	Slovenia	Ireland		

\* Organisation of Economic Co-operation and Development

\*\* Programme for International Student Assessment Sources: OECD; McKinsey & Company and science—compared with their counterparts in other countries.

However, only 69% of young Quebecers complete their secondary or vocational education by their 20th birthday. Of the other 31%, two-thirds are temporary or permanent dropouts, while the remaining one-third are not technically dropouts because they continue to attend vocational training or adult education programs. The 31% figure rises to 36% when only boys are considered, as opposed to 25% for girls.

Generally speaking, the situation has improved little in the last two decades. Although adult education has helped reduce the number of lifelong dropouts, the graduation rate among teenagers has barely changed.

In the wake of the Ryan reform (1988),<sup>13</sup> which raised the general education requirements for access to more extensive vocational training, the graduation rate for the under-20 age group declined for several years. However, the number of young people who eventually resumed their studies rose, with the graduation rate among people age 20 and older increasing significantly. In other words, there has been a sustained trend toward late graduation.

Looking at the percentage of the population that has graduated from high school within the normal time period, Canada ranks an unenviable 16th out of 30 Organisation for Economic Co-operation and Development (OECD) member countries. Due to its adult education programs, Canada rises to fifth position when the graduation rate for the 25-to-34 age bracket is considered. Quebec is at the rear of the Canadian pack, ranking ninth among provinces for graduation within the normal time period. This situation has worsened since 1992, when Quebec

<sup>13</sup> The Ryan reform aimed to train qualified workers in a context where trades were being professionalized and becoming more complex. The reform gave tradespeople the same basic general education as other citizens, thereby ending shortened educational paths.

## ranked seventh. Over the

same period, the gap in the dropout rate between Quebec and Ontario grew from 2.7 to 3.6 percentage points.

## Figure 3

## Graduation rate among under-20-year-olds essentially unchanged for two decades

High school graduation rate,\* population age 16 and over



\*High school or vocational diploma

Source: Ministère de l'Éducation, du Loisir et du Sport; McKinsey & Company

#### Figure 4

## Quebec's unenviable position 2008 rankings

#### Ranking of OECD countries\* % of population obtaining the equivalent of a DES or DEP\*\* within the normal time period

DES or DEP** within the normal time period		
1	Germany	
2	Greece	
3	Finland	
4	Korea	
5	Japan	
6	Norway	
7	Iceland	
8	Czech Republic	
9	Switzerland	
10	United Kingdom	
16	Canada	
18	United States	
28	France	

#### Ranking of Canadian provinces\*\*\* Graduation rate, population 20–24 years



\* OECD Education at a Glance 2008; data for 2005-2006

\*\* High school or vocational diploma \*\*\* Statistics Canada, average for the 2005–2006 to 2007–2008 school years

Sources: Organisation for Economic Co-operation and Development; Statistics Canada; McKinsey & Company

## **Dropping out: serious consequences**

Dropping out of school is disastrous for the individual. A statistical analysis of the consequences of dropping out shows that non-graduates have lower average annual incomes than graduates, with lost earnings on the order of \$439,000 (undiscounted value) by the end of their working life.<sup>14</sup> Non-graduates are affected more severely by unemployment: they are the majority of welfare recipients and the core of the prison population, despite comprising a minority in society. Lastly, dropouts have a shorter life expectancy and a higher incidence of depression.

A high dropout rate also has serious consequences for society as a whole. Non-graduates are usually less active participants in community life and contribute less to the strengthening of Quebec's social fabric.

14 Les sans-diplôme au Québec : Portrait d'ensemble, Pierre Fortin, 2008



Sources: Statistics Canada; Institut de la statistique du Québec; Health Affairs; Ministère de la Sécurité publique; OECD; McKinsey & Company

### Graduation and citizen participation



Percentage of the population segment that...

Figure 6

Sources: Journal of Public Economics; College Board; McKinsey & Company

<sup>\*</sup> High school or vocational diploma

The economic consequences for society are also severe. For the government, the current dropout rate of 28,000 voung people<sup>15</sup> per cohort translates into lost revenues of \$1.9 billion (in current dollars) in the form of uncollected sales and income taxes and additional social expenditures typically associated with dropouts over the course of their lives. It is as if the government signed a \$1.9-billion mortgage every year.

### Figure 7 Cost of a dropout cohort in Quebec



Looked at from another standpoint, the dropout

rate imperils Quebec's economic vitality by depriving society of qualified workers. The phenomenon is even more worrisome when Quebec's demographic trends are taken into account: in less than 20 years, Quebec will have just two and a half working-age persons for each senior age 65 or over. The current ratio is five to one. At the end of the 1960s, it was eight to one.<sup>16</sup>

## Every dropout is unique, as is every community

The dropout problem is intractable because its determinants are many and vary considerably from individual to individual. Every person has a unique educational background, and is shaped differently by

16 Institut de la statistique du Québec.

his or her family and community. The roots of the phenomenon extend far beyond school.

Several studies<sup>17</sup> have shown that dropping out is not a spontaneous act, but the result of a series of factors, some of which come into play in early childhood.

For example, children who have language problems when starting school begin developing an educational lag in the first grade that can eventually lead to their dropping out. A 2008 report on the school readiness of Montreal children and using the Early Development Instrument (EDI) showed that nearly one-third of the city's children are underprepared when they enter first grade and consequently are at higher risk of having learning difficulties.

<sup>15</sup> Of which approximately 13,500 are permanent dropouts and approximately 14,5000 are returners.

<sup>17</sup> For example, the Groupe d'étude sur les déterminants du décrochage sponsored by the Fondation Lucie et André Chagnon.

Figure 8 Determinants to monitor from birth through high school graduation



Sources: Fondation Lucie et André Chagnon; Groupe d'étude des conditions de vie et des besoins de la population; McKinsey & Company

Besides the unique background and path of each individual, there is the uniqueness of each community. Studies on this subject show that in Quebec the graduation rate at seven years after starting high school varies greatly by region, ranging from 40% in the worst case to 77% in the best.

Such disparities can be pronounced within a region and even between neighbouring cities. Communities that appear superficially similar (equivalent average incomes and unemployment rates, presence or absence of neighbourhood schools, comparable central cities, etc.) sometimes have very different graduation rates.

## The special case of vocational training

Graduating from vocational training programs after age 20 postpones the arrival of qualified workers on the labour market and also delays these young adults' access to the benefits that flow from a quality job. This delay comes at a considerable cost to individuals, companies and Quebec society.

Several factors limit enrolment in vocational training programs. First, despite some progress, trade and vocational training are less valued than they should be by any objective measure. A study of Quebec senior high school students reveals that nearly 70% do not enrol in vocational training because the available

### Regional differences in the dropout rate

Graduation rate after seven years\* Quebec administrative regions, 2006–2008



#### Figure 10 Differences between the communities in a given region

Non-graduation rate among males, 2001–2003 Centre du Québec



Sources: Ministère de l'Éducation, du Loisir et du Sport; McKinsey & Company

trades "are not interesting."<sup>18</sup> Indeed, the attitudes and biases of some parents and education workers lead young people to view vocational training as less "valuable" than college or university education. And yet the needs of the labour market argue in favour of training more tradespeople. This situation is harmful to society and to many young people, who could achieve fulfilment by working in a trade suited to their talents and interests.

This orientation problem is based on misperceptions and ignorance of trades and the possibilities they offer in terms of employment, wages and working conditions—all factors that reduce enrolment in vocational training programs. It comes as no surprise, then, that many of the students who do enrol are relatively old. These students enrol after attending a post-secondary institution or being on the labour market for a few years.

In addition, the admission requirements for these programs may be a barrier for some students,

Sources: Groupe d'étude des conditions de vie et des besoins de la population; ministère de l'Éducation, du Loisir et du Sport: McKinsev & Company

particularly younger students who fail to meet the general education or other criteria. All else being equal, older students tend to be favoured because they are often more serious and disciplined and show greater vocational maturity.

Quebec has seen strong growth in the size of the cohort enrolled in vocational training since the Ryan reform in 1988, especially among older students. It is now time to encourage 14- to 19-year-olds who are not particularly comfortable in academic streams to consider vocational training, whose more hands-on and job-oriented nature could contribute to improved student retention.

### **Education undervalued in Quebec**

In many ways, young people reflect the society in which they live. The low value placed on education is considered one of the determining factors in dropping out. Young people's family environment, the community with which they identify and the messages they receive from the broader society all

Figure 9

<sup>18</sup> Situation des jeunes en formation professionnelle, principaux indicateurs, Ministère de l'Éducation, du Loisir et du Sport, November 2006.

have an impact on their motivation—or lack of it—to stay in school.

A survey conducted in connection with the accessto-education task force chaired by Michel Gervais (2005), whose report was titled *L'éducation : l'avenir du Québec,* found that education is less valued in Quebec than in the rest of Canada.

## Education is less valued in Quebec than elsewhere in Canada Portion of the surveyed population that feels it is

Figure 11



Source: Gervais, M. L'éducation: l'avenir du Québec, 2005; McKinsey & Company

## Section 3 Building on Existing Quebec Initiatives

Quebec has a relatively robust public service infrastructure that can be leveraged to promote student retention. This infrastructure includes, among other things, the entire education system, its school boards and schools, daycare centres, health and social services centres (CSSSs) as well as youth centres and associated programs (e.g. Programme Qualification Jeunesse).

In addition to these services, Quebec has a civil society (non-governmental) infrastructure provided by various community and charitable organizations.

We also rely on the many individuals from all spheres of society who devote time, energy and other resources to promoting student retention. These people come from all walks of life, a diversity that reflects the need to address the myriad determinants of school leaving and adapt solutions to communities' particular realities. These individuals are involved with a wide range of programs and initiatives, originating from the government or civil society and addressing the full spectrum of youth issues. Such projects demonstrate Quebec's capacity to innovate through government programs (e.g. early childhood education centres, integrated perinatal and early childhood services); to marshal resources on a large scale to reduce the dropout rate (such as the *Agir autrement* strategy); to organize and launch concerted efforts to combat the dropout problem at the regional level (e.g. CRÉPAS); and to innovate through social entrepreneurship and produce lasting change in communities (e.g. Fondation pour la promotion de la pédiatrie sociale).

Here follows an overview of some of the most significant existing programs related to student retention.



### Many complex interventions

Figure 12

Sources: Interviews; McKinsey & Company



Sources: Interviews; McKinsey & Company

## Educational childcare centres (SDGEEs) and integrated perinatal and early childhood services (SIPPEs)

Quebec currently has a network of educational childcare facilities (*services de garde éducatifs à l'enfance* or SDGEEs), including daycare centres and the childcare centres known as *centres de la petite enfance* (CPEs). The network comprises nearly 205,000 subsidized spaces (\$7-a-day user fee). In 2005, there were 52 daycare spaces available for every 100 children under age 5.<sup>19</sup>

Because of its quality and scope, the SDGEE network is an important asset for promoting student retention in Quebec. American studies (see the Perry Preschool program discussed in section 4) have demonstrated the potential impact of early childhood education on the teenage dropout rate. In years to come, Quebec can therefore expect to derive significant benefits from its investment in the childcare network.

Quebec's childcare network provides the following benefits to children from disadvantaged backgrounds:

- Free access to daycare, five half-days a week, for children from families receiving last-resort assistance. In January 2007, nearly 12,000 children attended daycare free of charge.
- Daycare spaces reserved for children living in vulnerable situations. In 2007, over 2,000 spaces were made available to children referred by the CSSS network.
- An additional allocation for educational childcare centres attended by large numbers of disadvantaged children.

Lastly, in 2006 the Ministère de la Famille et des Aînés and the Fondation Lucie et André Chagnon signed an agreement to provide \$12.5 million in funding over three years. The agreement improves support for coordination offices and home-based daycare providers that work with disadvantaged children.

Despite these initiatives, fewer children from disadvantaged backgrounds use daycare services than Quebec children as a whole.<sup>20</sup> There are many possible explanations for this fact: availability of a stay-at-home parent, problems with access to services, transportation problems and anti-daycare biases, to name a few. The situation presents a very real challenge to reducing the dropout rate.

Integrated perinatal and early childhood services (SIPPEs) for at-risk families are intended to provide support from the early stages of pregnancy until the child turns 5. These services are inspired by a program launched by David Olds, recognized for his work on the prevention of abuse and neglect. They also draw inspiration from early intervention programs such as Head Start, Perry Preschool and Carolina Abecedarian, all of which have proven effective in preventing developmental delays.

SIPPEs are provided to teenage parents and to families living in poverty, as determined by the socio-economic status of expecting mothers and mothers age 20 and over (no high school diploma, income below the poverty line). These family guidance services consist primarily of home visits, support for early childhood education (in partnership with educational childcare facilities) and support for multi-sectoral activities intended to create a favourable environment (mainly in partnership with community organizations). Each

<sup>20</sup> Results of a longitudinal study of childhood development and the quality of daycare services titled Étude longitudinale du développement des enfants du Québec concernant la qualité des services de garde (2005).

<sup>19</sup> Institut national de santé publique du Québec.

component of these services is founded on the need for early, intensive and ongoing intervention tailored for at-risk families (e.g. low education, low income, young maternal age). The goal of these services is twofold: to prevent abuse, neglect and violence against children and to promote optimal development among children ages o to 5. SIPPEs support pregnant women and parents by helping them build loving relationships with their children and assume their proper role in their children's education.

SIPPEs have existed since 2004. Efforts are now underway to ensure that their structure and content are consistent with the latest scientific findings and the needs of the families they serve. These positive actions must be continued.

### Agir autrement

In May 2002, the Ministère de l'Éducation, du Loisir et du Sport unveiled the *Agir autrement* intervention strategy, designed to provide guidance to high schools in disadvantaged neighbourhoods and improve academic achievement levels. This major program, which targets 195 high schools and 55 school boards, had an initial budget of \$25 million a year for five years. Since the original announcement, the budget has been increased to \$40 million per year.

The strategy is founded on four types of intervention:

- Local responsibility for action. School administrators, teachers and professionals create both a profile of the situation and an action plan that they will implement.
- Financial support for institutions. Annual budgets of \$200,000 to \$500,000 per school (depending on the clientele) make large-scale interventions possible.

- Tactical support for institutions and individuals. Guides (for example teaching practices, study data) and training are provided to give guidance to schools.
- Monitoring of initiatives. A province-wide steering committee monitors and assesses the implementation of initiatives.

Since its creation, the *Agir autrement* strategy has yielded variable levels of success. The schools involved can be grouped into three categories: (1) committed institutions that have successfully increased the graduation rate, the sense of belonging among students, and teachers' motivation and satisfaction levels; (2) well-intentioned institutions that launch promising initiatives but achieve less-than-ideal results and doubtful long-term viability; and (3) institutions that show little commitment to participating in *Agir autrement* and that achieve few measurable changes in students' academic achievement levels.

Based on these results, the Ministère de l'Éducation, du Loisir et du Sport is working to improve the strategy and allocate the resources necessary to increase its effectiveness.

In an improved form, this program could become a key tool for increasing student retention in the 100 to 120 schools at greatest risk. Sections 4 and 5 revisit this idea.

## CRÉPAS

Founded in 1996, the Conseil régional de prévention de l'abandon scolaire au Saguenay–Lac-Saint-Jean (regional school dropout prevention council or CRÉPAS) has striven to prevent youths from dropping out of high school, CEGEP and university by taking concerted action at the local and regional levels.

CRÉPAS mobilizes key players in the region to work toward social change aimed at keeping young people in school. Its approach is founded on research into young people's lifestyles, making it possible to identify the causes of dropping out in specific contexts and develop solutions adapted to each setting.

The council's philosophy is that while academic success is first and foremost the business of the youth concerned, it is also the responsibility of the region as a whole. Success requires that all stakeholders get involved and take action to increase students' desire to stay in school.

The CRÉPAS intervention model has four pillars:

- Regional mobilization and operational coordination. Among other things, this includes coordinating the activities of working groups and volunteers, ensuring that the various stakeholders stay focused on a common goal, and carrying out the regional dropout-prevention action plan.
- Research and the dissemination of findings. This pillar enhances regional and local expertise on priority issues such as youth social behaviour, language difficulties and work/study balance.
- Promotion of student retention and training of the various affected groups. The initiatives include annual awareness and promotion campaigns targeting teachers and other education professionals. One example is the Chaque jeune a besoin

d'encouragement chaque jour (every child needs daily encouragement) campaign.

Intervention and guidance. Among the noteworthy efforts are support for service use by youths and their families, dropout prevention initiatives in at-risk environments, improvement of communications between schools and families, and strengthening of the partnership between social services and education.

CRÉPAS has achieved excellent results in the Saguenay–Lac-St-Jean region, which now boasts one of the highest graduation rates in Quebec despite having had a rate near the provincial average as recently as 1996.

The CRÉPAS model is useful for highlighting the importance of the regions in mobilizing local actors. The regional level is destined to play an important role in promoting student retention.

#### Figure 14

### Improvement of the graduation rate in Saguenay–Lac-St-Jean

## Graduation rate after 7 years\*



<sup>\*</sup> From beginning of high school

Sources: Ministère de l'Éducation, du Loisir et du Sport; McKinsey & Company

### Fondation pour la promotion de la pédiatrie sociale

The approach of the Fondation pour la promotion de la pédiatrie sociale (foundation for the promotion of social pediatrics or FPPS) is based on the notion that children's developmental difficulties are linked to unfulfilled fundamental needs. Thus, a child is at risk when fundamental needs such as identity, stability, safety and justice go unmet or when there are shortcomings in health determinants (nutrition, housing, hygiene, exercise, clean environments). An at-risk child may exhibit delayed development of language and motor skills, social deficits or attention deficits. As a result, such children are susceptible to academic failure and unemployability, among other problems.

With that in mind, the FPPS works with children ages o to 14 living in high-risk situations. Its mission is to enable children to blossom within their environment. The goal of the social pediatrics approach is to guide a child along a path to success. The FPPS intervenes with children individually by accounting for their specific needs and holistically by coordinating the work of individuals who can help fulfill the child's fundamental needs. The FPPS is thus a bridge between government and community services.

The FPPS is an offshoot of the activities of Dr. Gilles Julien. His initial work as the "doctor on a bike" in 1998 led to a proven concept and approach that has gained popular support in Quebec.<sup>21</sup> Today, the FPPS operates two centres: one each in the Montreal neighbourhoods of Hochelaga-Maisonneuve and Côte-des-Neiges. The FPPS is planning to extend its activities throughout Quebec and eventually to achieve global recognition for its social pediatrics approach. Dr. Julien, a Fellow of the Ashoka Society, is known worldwide as an innovative social entrepreneur. The FPPS clearly illustrates the potential for social innovation and entrepreneurship in Quebec, which can, in turn, be helpful in promoting student retention. It also highlights the importance of developing strong, close ties with the community in order to reach people in need, forge bonds of trust with them and ultimately produce enduring change in the community. The recommendations presented in section 5 include further discussion of this approach.

## Three well-established Quebec initiatives

This report does not claim to do full justice to all the hundred-plus programs and initiatives that directly or indirectly address student retention in Quebec. And yet their abundance inevitably raises questions about their effectiveness. Are our interventions intensive enough? Are we using the right practices? The general lack of measurable results in the field of student retention in Quebec makes it impossible to answer these questions with any certainty.

Nevertheless, this overview clearly points to an opportunity to build on three well-established Quebec initiatives:

- Early childhood services, including educational childcare centres (CPEs) and integrated perinatal and early childhood services (SIPPEs), which should be maintained and improved, in particular by enhancing their accessibility for the most disadvantaged populations.
- The Agir autrement intervention strategy, which rightly focuses on secondary schools with very high dropout rates, but whose approach and interventions should be improved in light of the best practices described in the next section.

<sup>21</sup> The FPPS was founded in February 2005 with the objective of using social pediatrics as a means of defending children's rights in disadvantaged areas.

Community innovation and mobilization initiatives (e.g. CRÉPAS and the Fondation pour la promotion de la pédiatrie sociale), which are successfully fostering community involvement and pooling available resources to produce lasting change in communities

## Section 4

## Learning from the Best Practices Outside Quebec

The high dropout rate is not a problem unique to Quebec. A quick survey of dropout prevention efforts around the world turns up more than 75 initiatives and formal programs (see Appendix B). A more thorough examination shows that only a small number have succeeded in producing tangible, measured increases —occasionally spectacular increases—in student retention.

Without necessarily copying others, Quebec's efforts to develop solutions for its own reality can draw inspiration from the basic principles that have guided initiatives elsewhere.

The Action Group studied four such initiatives: High/Scope, Check & Connect, Pathways and Career Academy. These were selected because they all have the merit of being rigorously measured (e.g. statistical studies with control groups) and achieving impressive results. As a group, these initiatives cover a wide range of approaches and could inspire a made-in-Quebec solution.

This section describes these four successful initiatives and the situation in Finland. See Appendix C for an overview of the Child–Parent, Carolina Abecedarian and No Child Left Behind initiatives, the Programme de prévention au primaire de l'Université de Montréal, the program implemented at Polyvalente St-Joseph as part of the *Agir Autrement* intervention strategy and the 1,2,3 GO! initiatives.

Reduction in

#### Total cost per Target age dropouts Implementation bracket young person Difference (%) Widely 3-4 \$12,356 for 1-2 38 implemented vears MIGH/SCOP \$5,000-\$7,500 for 33 Reproduced 11 - 155 vears Beginning to be 13-17 \$15,000-\$20,000 86 oathway for 5 years reproduced Widely 13-17 \$1,500-\$3,000 for 34 implemented 5 years

Figure 15 Successful initiatives analyzed

Source: McKinsey & Company

## High/Scope Perry Preschool Program

The goal of the High/Scope Perry Preschool Program is to promote the cognitive and social development of 3- and 4-year-olds of low socio-economic status.

This preschool curriculum was developed in Michigan in the 1960s, when public schools in Ypsilanti noted an increase in the academic failure rate and some students showed significant lags beginning in kindergarten and first grade.

Built around active learning, the program has four key aspects:

- Intensive intervention at the preschool level (2.5 hours a day, five days a week, over a two-year period) and a weekly home visit. The average teacherstudent ratio is one teacher to 5.7 students.
- Training of teachers in areas like adult-child interaction, classroom and materials arrangement and daily routine planning.
- A curriculum based on five main content areas: approaches to learning; language; literacy and communication; social and emotional development; health and well-being; and arts and sciences.
- Results assessment. The program includes several key performance indicators to measure the quality of the educational approach and the children's progress in learning.

A longitudinal study examined the lives of 123 children who took part in the program. African-American and born into poverty, these children were at high risk of failing school. The results of this now-historic study are convincing: 66% of participants graduated from high school, compared with 45% in the control group. The study also revealed a significant impact on the children's cognitive skills, with 67% of 5-year-olds having an intelligence quotient above 90, compared with 28% for the control group. And at age 14, the pass rate on standardized tests was 49% versus 15% for the control group.

The program has been implemented in several schools in the United States and is being introduced in the United Kingdom, Ireland, Mexico, the Netherlands, South Africa, Singapore, Korea and Indonesia. It costs approximately \$12,400 per child for two years.

The program is similar to the Quebec daycare system. We can therefore expect the Quebec system to bear fruit, in particular by making daycare services more accessible to the underprivileged and providing targeted intervention that encourages student retention.

#### Figure 16

### Results of the Perry Preschool program Cohort of 123 children



Sources: Child Trends; High Scope Educational Research Foundation; McKinsey & Company

### **Check & Connect**

The Check & Connect program identifies at-risk high school students and provides individualized assistance in order to promote school completion. The approach is based on close collaboration between researchers, school staff, students and parents. The program was created in 1990 by the University of Minnesota in partnership with Minneapolis Public Schools.

Participating students are tracked through daily "checking" of factors that point to a high risk of school failure (e.g. absenteeism, tardiness, failures, behavioural problems). Each student in the program is assigned a monitor, who serves as a mentor, advocate and service coordinator. From the start, the monitor builds a trusting relationship with the student; in practical terms, the monitor works with the student and performs the necessary follow-up for at least two years.

The results are conclusive: after four years in the program, the dropout rate among participating ninth



**Results of the Check & Connect program** 

Figure 17

graders (equivalent to Quebec's secondary 3) fell by one-third. The program costs from \$5,000 to \$7,500 per student for the five-year course.

Check & Connect should inspire a reform of the *Agir autrement* intervention strategy. The monitor/mentor plays a decisive role in attaining the objectives of these school-based interventions.

### **Pathways to Education**

Pathways to Education's mission is "to ensure that young people from at-risk and/or economically disadvantaged communities achieve their full potential by getting to school, staying in school, graduating and moving on to post-secondary programs." The program aims to provide intensive individual, multi-faceted assistance adapted to the young person's specific needs and geared to school completion.

The approach is based on student and parent involvement and on their close cooperation with workers at school and in the community.

Pathways was set up in 2001 in Toronto's Regent Park, a densely populated, multi-ethnic and disadvantaged neighbourhood with no nearby high school. Nearly all (95%) Regent Park children take part in the program.

In signing a contract to participate, the student and parents undertake to comply with the program requirements for the duration of the student's high school studies. The program is based on four pillars:

- The services of an advisor, whose role is part mentor, part coach (similar to Check & Connect's monitor).
- A twice weekly, group-based homework assistance service.

- A weekly mentoring program, in which the students learn to know themselves better, manage their personal issues and take risks. In the final two years, these meetings are also used to explore career/specialization opportunities and support the students' motivation to reach a realistic goal and complete their studies.
- Financial support for transportation and school supplies and a scholarship fund of up to \$4,000 for post-secondary education.

The advisors who work with the youths are a key part of the program. First, they build a trusting relationship with the student and the student's parents. Then they meet regularly with the teachers and parents and receive the student's report cards and attendance records.

The cost of Pathways to Education as implemented in Regent Park is \$16,000 per student (including the scholarship fund) for four years, the standard length of Ontario's high school program. United Way of Greater Toronto and Pathways to Education Canada support the program, through which about 300 volunteers tutor and mentor 850 students.

The results are spectacular. The cumulative dropout rate among the 850 students in the four Regent Park cohorts fell to 8%, compared with 56% for the same neighbourhood before the program was implemented. The graduation rate with Pathways is almost the same as in Toronto's most advantaged neighbourhoods.

Pathways has been implemented in other Ontario communities: Ottawa, Kitchener and Toronto's New Heights and Jamestown neighbourhoods. The program was recently implemented in Quebec by the Toujours Ensemble organization under the Passeport pour ma réussite banner. The program's 48 volunteers have worked for two years with 126 students in Verdun.

The Pathways/Passeport model appears especially promising for Quebec's disadvantaged urban neighbourhoods. There are 15 to 20 neighbourhoods where such an approach could be implemented.



\* The first set of Regent Park data is for 1999 and the second set for 2007; the Toronto data are for 2000 Sources: Pathways to Education; McKinsey & Company
### **Career Academy**

Career Academy encourages young people to consider applied education, as a way of motivating them to stay in school.

The program was founded in Philadelphia in 1969 by a group of business people in cooperation with Philadelphia Electric Company and Bell of Pennsylvania. Led by the visionary Charles Bowser, the group was disturbed by the rise in violence, unemployment and poverty among young people even though many area businesses had trouble finding skilled employees in several trades.

The Career Academy program is based on three main elements:

- Adapting the curriculum to build better links between academic subjects and vocational activities. For example, a group of students studying aeronautics will work on aircraft-related physics problems (calculating the friction of an aircraft's wheels on a runway, for example) and be introduced to literature by reading a novel whose protagonist is a pioneer in civil aviation.
- Arranging for workplace internships in partnership with local businesses. These ties are also used during the school year for organizing factory tours and guest lectures.
- Encouraging a close-knit learning community by keeping the same students and teachers together for the duration of the school program (two to four years). This closeness and the bonds of friendship and trust that grow out of it create a stronger sense of belonging and involvement.

Career Academies are set up in schools that offer more conventional curricula. The high school diploma obtained by taking part in the program is recognized by post-secondary institutions, ensuring that students who choose this path are not marginalized.

The approach has enjoyed such success since the 1960s that it is now implemented in more than 2,000 schools in the United States and is increasingly popular around the globe. A study of some 500 students showed that taking part in the program reduced the dropout rate by one-third.





Sources: Kemple; McKinsey & Company

### Finland

Finland's student retention rate is exceptional: 95% of students graduate from high school within the normal period,<sup>22</sup> compared with an average of 80%<sup>23</sup> for OECD member countries.

The Finnish approach stands out in three ways:

<sup>22</sup> Comparable to Canadian time periods.

<sup>23</sup> OECD; *Education at a Glance* 2008; percentage of the population having graduated within the normal time period.

- It strongly emphasizes individualized support of young people. Each primary school student has at least two pedagogical counselling sessions a week.<sup>24</sup> A main focus is upstream detection of learning difficulties and integrating the child into the school program.
- The curriculum is flexible and adaptive. The criterion-referenced approach includes a flexible remedial system that groups students by learning level in the subject, not by age or grade. Several streams (general and vocational) lead to graduation based on each student's interests.
- The teaching profession is highly valued by society and compensated accordingly. For example, teachers earn as much as lawyers and physicians.<sup>25</sup>

The success of the Finnish system stems from the way it places greater value on education and educational workers and from the flexibility of the school program, which is adapted to young people's needs and development. Some of these concepts are integrated into the recommendations in section 5.

### Learning from the best practices

The most successful initiatives are usually local. They are rigorously led by enthusiastic members of the community, who can adapt their practices to the immediate reality of the area's young people. Communities can thus be the key players in the dropout prevention fight by using their experience, skills and resources to create environments conducive to youth development.

An examination of successful initiatives reveals five recurring characteristics that should underpin the development of a Quebec-wide effort to increase student retention.

- Find strong leaders to promote the cause in communities.
- Develop the initiatives in a spirit of partnership among government bodies, civil society and business. It is important to mobilize the entire community (schools, community organizations, youth centres, parents, municipal authorities, the business community, etc.) toward a shared goal.
- Develop the initiatives around young people. The work of mobilizing and involving local and regional players should be centred on personalized support and constant follow-up of children and families. It is desirable to become involved with at-risk youth from early childhood on and to keep the child's overall development in mind. There is no single solution applicable to every young person in every community.
- Provide the financial support for the initiatives necessary to support at-risk youth and their families, educators and teachers. An investment on the order of \$10,000 to \$20,000 per at-risk youth (over a three- to five-year period) has typically been required in order to reach the set objectives. This investment should be viewed in the context of the government's \$120,000 in lost revenues (in present dollars) per dropout.
- Measure results in order to prioritize effective actions and continuously improve the interventions. Assessing and measuring program and initiative results will make it possible to assign resources to the right places, adjust the aim as necessary and, eventually, disseminate the knowledge acquired.

Examining the best practices outside Quebec also sheds light on a few particularly promising new

<sup>24</sup> Raising the Bar: How Finland Responds to the Twin Challenge of Secondary Education. World Bank.

<sup>25</sup> OECD; Attracting, Developing and Retaining Effective Teachers: Finland Report, June 2003.

models that could provide inspiration for future Quebec initiatives to increase student retention.

The High/Scope Perry Preschool program, which is similar to Quebec's educational daycare services, has produced very good results. Investment in educational daycare services should therefore be continued in order to maintain their quality. It is also important to ensure that children from high-risk backgrounds have access to these services and make use of them.

Check & Connect appears to be an effective model for intervention in at-risk high schools. It deserves to be closely examined with an eye to revising the *Agir autrement* intervention strategy.

Pathways could prove very beneficial to Quebec's densely populated and disadvantaged neighbourhoods, where a community-based approach will work better than a purely school-based one.

Career Academy could be a useful model for strengthening the vocational program and increasing the business community's involvement in the student retention campaign.

The Finnish approach could inspire Quebec to place more value on education. It offers models of flexibility and sustained and coordinated support to young people.

## Section 5 The Action Plan

The Action Group proposes that Quebec society including all levels of government, the education sector, civil society and the business community—join in a Quebec-wide effort to increase student retention with the following specific goal :

# By 2020, increase the graduation rate among under-20-year-olds to more than 80%.

Doing so would raise Quebec's graduation rate to second place among the provinces, equal to Ontario's. Quebec would also rank among the ten OECD countries with the highest rates of graduation within the normal period.

The Action Group recommends ten specific actions for achieving this goal. Aimed at mobilizing resources at the Quebec and regional levels, the actions strongly emphasize direct action at the local level. While achieving this goal obviously depends on wellcoordinated local action, it also requires creating sustainable Quebec-wide partnerships among government bodies, the education sector, civil society and the business community. Quebec's high dropout rate is everybody's business.

Each action is predicated on experience and knowledge of student retention. Accordingly, Quebec's existing structures, resources and networks should be leveraged—not only to build on past experience but also to avoid the costly and pointless creation of new bodies.

The proposed actions cover the full spectrum of youth development, from early childhood to adulthood. The experts consulted were unanimous on the need for early intervention. Research suggests that effective approaches are possible from early childhood through high school.



### Figure 20 Ten actions to raise the graduation rate among under-20-yearolds to over 80% by 2020

Sources: Groupe d'action sur la persévérance et la réussite scolaires au Québec; McKinsey & Company

Lastly, continuous project evaluation and measurement of results and costs are core components of the recommendations. To ensure that interventions are as relevant as possible, it is essential that their progress be closely monitored. This will also facilitate the dissemination of best practices throughout the network.

### **Action 1**

## Build a Quebec-wide consensus on the need to promote education and student retention

A society's overall level of education affects its social, cultural and economic development. If Quebec hopes to position itself as a knowledge society, it must emphasize education and invest in helping all its children achieve their full potential. Such an investment is all the more crucial in Quebec, where education is valued less than it is elsewhere in Canada.

This action will entail conducting an awareness and mobilization campaign at the provincial, regional and local levels. The campaign's purpose will be to reshape Quebecers' education-related attitudes and behaviours.

At the provincial level, the message will focus on promoting education, emphasizing the value of professional training and highlighting the importance of educators. Fuelled by the urgency of taking action to turn the dropout situation around, efforts will be made to mobilize stakeholders in province-wide networks.

At the regional level, the message will target young people, parents and employers and focus on the value of education, the aim being to promote achievement at the high school level and encourage youth to aspire to post-secondary education as a means of securing their future. At the local level, communication will be tailored to youth and parents and stress the value of a high school diploma and of education in general.

This awareness and mobilization campaign should be structured as a partnership among the government, the education sector, civil society and the business community. It should lead to specific activities to promote student retention.

For example, with the support of the government, the business community could undertake initiatives targeting retailers and other businesses that hire students. The initiatives would focus on promoting school attendance, avoiding excessive working hours and adjusting work schedules to accommodate exams—three factors that can affect the dropout rate.

One such initiative could be to encourage organizations such as the Conseil québécois du commerce de détail (the provincial retailers' association) and the Canadian Bankers Association to develop a work protocol for young people in their respective industries. The protocol would cap the hours worked by full-time students and have employers commit to work schedules compatible with class and exam schedules. A "certification" system would recognize the efforts of businesses that respect the principles of a healthy work/study balance.

Another initiative might involve encouraging private companies to sponsor or "adopt" a school and, for example, take part in cooperative vocational training programs. Such an initiative could be part of the broader *Agir autrement* strategy.

As a final example, the university system, again with government support, could launch mentorship initiatives to inform young people about universitylevel programs and research.<sup>26</sup>

<sup>26</sup> To this end, the Université de Montréal has developed the SEUR project (SEUR is an acronym for *sensibilisation aux études universitaires et à la recherche).* 

### Action 2

## **Strengthen regional involvement in student retention**

It is crucial that each region have a front-line organization devoted to fighting the dropout rate in the framework of a cross-sector partnership. Candidate organizations could include the IRCs, the *tables interordres* (inter-level coordinating bodies) and the CRÉs (regional boards of elected officials). The designated organization should have a regional dropout-prevention mission, which should be built around strategies for mobilizing all players with a stake in the student retention problem. It should also have extensive knowledge of specific regional and local conditions and collaborate with as many sectors as possible.

In terms of resources, skills and presence in various settings, IRCs and other organizations vary widely in their ability to take action. It is therefore essential to strengthen existing and future organizations so they can provide tangible, integrated support to local initiatives and become involved in projects that have a positive, measurable impact on the dropout rate. To avoid duplication of effort, each region should have a single spearhead organization.

The action involves strengthening regional players to enable them to perform the following activities:

- Analyze and assess the regional situation, including producing an in-depth profile of the current situation of youth.
- Develop a shared vision of regional issues and risk factors.
- Plan and implement a coordinated regional strategy.

- Coordinate joint local actions and perform bilateral liaison with the local level to ensure the success of local initiatives.
- Evaluate mobilization efforts and action plan results.
- Support innovative initiatives, such as pilot projects.
- Share knowledge, tools and practices between the regional and local levels.
- Forge links with other regional steering committees that work with youth and families.
- Build an interregional platform for exchanging expertise and developing and aligning competencies. This will allow the spearhead organizations to deliver a consistent message as they raise awareness among the public and province-level decision makers.

The organizational expertise and firm commitment to youth development of the Fondation Lucie et André Chagnon make it a top candidate for leading this action. Other bodies, such as the Ministère des Affaires municipales, des Régions et de l'Occupation du territoire, the Ministère de l'Emploi et de la Solidarité sociale and the Ministère de la Famille et des Aînés, could also provide support for this action.

### **Action 3**

## Expand the support services available to future parents, parents and 0- to 5-year-olds from disadvantaged backgrounds

The positive impact of early-childhood educational intervention on children's socialization, ability to learn and development of independence have been demonstrated. Fortunately, Quebec has two solid programs that can serve as a suitable base for future action: the SIPPEs (integrated perinatal and early childhood services) and the provincial daycare programs, in particular the CPEs (childcare centres).

This action entails enhancing these programs to better support student retention while simultaneously ensuring access to the programs, particularly for the children at highest risk, who often come from disadvantaged neighbourhoods.

For the SIPPE program, adapted strategies should be implemented to reach a higher percentage of the target clientele, namely vulnerable families.

Optimizing childcare services will first involve improving worker training in every type of childcare environment. The EDI<sup>27</sup> needs to be evaluated to determine whether it can be more widely deployed in disadvantaged areas as a tool for tailoring services to children's and families' identified needs. Daycare centres and schools will also need to work together to ensure that information is transferred between preschools and schools, making it possible to adequately meet every child's needs.

Lastly, programs and services must be adapted to reach more parents and children who do not use daycare services, especially in disadvantaged areas. Stopover centres, home-based early stimulation activities, parent-child workshops and flexible scheduling are among the tools that should be considered

#### **Action 4**

## Develop community-based pilot projects—complementary to daycare services—that target at-risk 0- to 5-year-olds in disadvantaged homes and smooth their integration into primary school

At-risk children living in disadvantaged environments are less likely than other children to attend childcare centres (CPEs) and other daycare facilities. Although their lower attendance rate can sometimes be explained by a lack of access, it is more often due to the reluctance of parents from disadvantaged backgrounds to use public sector daycare services such as the CPEs. Consequently, it is important to support efforts to reach these parents and their at-risk children and provide them with services better adapted to their needs. This solution must be community-based: while disadvantaged parents are often suspicious of public services, trusting relationships can be built with local services delivered by community organizations.

This action involves conducting pilot projects in three to five disadvantaged neighbourhoods where current daycare services fail to meet identified needs. The pilot projects will be community-based and modelled on best practices in Quebec (e.g. social pediatrics) and elsewhere (e.g. Perry Preschool). Civil society and community organizations should play a key role in leading this action. The pilot projects will be closely monitored and their results measured rigorously, which will make it possible to consolidate the lessons learned over the three- to five-year study period. The approach could then be implemented on a larger scale and ultimately in all of Quebec's disadvantaged neighbourhoods.

The pilot projects should complement not only educational daycare services but also the SIPPE programs run by the CSSS network and activities currently run by community organizations that work

<sup>27</sup> Early Development Instrument

with young children and their parents. Priority should be given to regional and local cooperation, while special attention should be paid to the coherence, complementarity and continuity of the interventions, particularly in relation to the healthcare and social services network. Lastly, these pilot projects should be demonstration projects that can be reproduced and widely implemented (availability of the types of workers and professionals required for the projects, cost, etc.).

The selection criteria for pilot-project neighbourhoods should include a low rate of educational daycare usage as well as a low participation rate in the SIPPE programs delivered by the CSSS network.

### Action 5

### Promote and introduce best practices to reduce educational lags in primary school

Children whose education lags behind their peers' in primary school soon become high risks for dropping out of high school.

This action consists of providing support for primary school intervention programs that identify children who have fallen behind, provide individualized services for these children and monitor their progress. The most promising programs will be expanded and new ones created.

Initially, existing programs (e.g. Projet accès à l'école, Famille-école-communauté, Soutien à l'école montréalaise, Aide aux devoirs, Mesures de soutien aux élèves en difficulté, Projet FLUPPY) will be catalogued and assessed as required. An overall assessment will be performed to determine the strengths and weaknesses of the current approach. Then, about ten pilot projects aimed at developing new approaches will be launched in the most at-risk

areas. The results of existing approaches should be measured concurrently.

Pilot projects could include the following elements:

- An individualized success plan prepared by primary schools in cooperation with the secondary schools their students will attend. The plan, which would ensure continuity in students' educational trajectory by smoothing the transition from primary to secondary school, should maintain continuity with the success plans currently used in some schools.
- Tools for early identification of learning difficulties and interventions tailored to the disadvantaged environment in close collaboration with health and social service organizations.
- Development of promising educational practices geared to the determinants for student retention (e.g. learning and social skills training, school engagement).

Monitoring of the pilot projects will reveal the most promising approaches; these can then be systematized and integrated into larger-scale programs.

### **Action 6**

## **Strengthen the Agir autrement strategy with proven intervention methods**

This action comprises using intervention methods to identify high-risk youth in high school, provide them with support services for staying in school, and measure their progress. The methods should: (i) incorporate the lessons learned from the *Agir autrement* strategy; (ii) draw inspiration from proven best practices, such as Check & Connect's; and (iii) be adapted to the specific conditions in the targeted schools. The interventions will be part of projects carried out in the targeted high schools. Each school will identify at-risk students and determine what they need in order to finish school. Schools will also work with various stakeholders involved in dropout prevention in the region, including people active in education, public services and community groups.

Initially, it would be best to work with 10 to 20 schools in high-risk neighbourhoods. Results from the pilot projects would be used for planning a broader implementation. The targeted schools should have a critical mass of at-risk youth enrolled—for example, they should be located in disadvantaged neighbourhoods, have a dropout rate above 25% and have at least 50 students per cohort. Under those criteria, the action should involve 100 to 120 Quebec high schools.

The success of each high school's project will depend on the leadership provided by the school's administrators and teachers as well as on the support of the school board. It is therefore crucial to adequately train and support school administrators. Lastly, it will be essential to develop intervention tools suited to a systematic, large-scale deployment.

### Action 7

### Set up community projects for atrisk high school students in the most disadvantaged neighbourhoods

Quebec's densely populated, disadvantaged urban neighbourhoods, where dropout rates tend to be high, often make ideal settings for seeing the results of targeted interventions. In these neighbourhoods, it is possible to address dropout determinants outside school by involving the entire community. Toronto's Pathways to Education program dramatically increased the student retention rate in just such a neighbourhood. This action entails implementing multi-faceted community intervention programs in disadvantaged neighbourhoods. The programs should be inspired by Pathways but adapted to each community.

The selected neighbourhoods should have a dropout rate of at least 40%, a minimum of 100 students per cohort and a highly disadvantaged population. In Quebec, 15 to 20 districts, most of them urban, can be expected to meet these criteria. Wherever possible, existing community programs should be the vehicle for this action.

A factor crucial to the projects' success will be the appointment of a high-profile leader who can mobilize the community and sustain its interest. The leader's role will be to support joint action involving the community, schools and other stakeholders. The leader should also help define a shared vision of the problem and set goals consistent with available resources.

With the support of key community members, the leader will assess the situation as accurately as possible. Together, they will identify at-risk youth and their needs. Next, they will inventory existing student retention services. Then, inspired by carefully documented and rigorously evaluated programs, they will create a program adapted to their community and its resources.

An evaluation process will be necessary to adjust goals as needed, measure results and assess the effectiveness of the allocated resources. Evaluation is also a prerequisite for disseminating best practices and developing homegrown expertise.

Expertise from all government departments involved with poverty will be essential as we fight to reduce the dropout rate in our most disadvantaged neighbourhoods. Community resources and youth centres, which often have deep roots in the neighbourhoods, can have a major impact on the outcome due to their relationships of trust with the target clientele.

### **Action 8**

### **Facilitate and encourage transition** to vocational training

Aware that vocational training holds little appeal for many Quebecers, officials from Ministère de l'Éducation du Loisir et du Sport have been working with school boards to improve access to vocational programs and increase the graduation rate. The main goals of these initiatives are to increase the number of young people enrolled in vocational training and reduce dropouts. The net result will be a lower average age at graduation.

This action entails: (i) making educational pathways more flexible, for example by building bridges between the general, vocational and technical streams; and (ii) promoting vocational and trade training to ensure they are seen as educational and occupational options as worthwhile as any other. These efforts should be targeted at youth, parents, guidance counsellors and businesses. Better support for regional and local experimentation would help boost young people's interest in vocational training. Work/study cycles-which have outstanding success rates-could be introduced, as could cooperation and partnership programs involving employers and schools and aimed especially at helping young workers continue their education. Establishing general-purpose training paths alongside vocational paths is another promising approach. Lastly, it is important to target young people who leave their youth centre at age 18 and encourage them to stay in school.

The implementation group for this action should make the following initiatives part of its pilot phase:

 Try new forms of work/study cycles and balancing.

- Have training centres, students, parents and employers sign agreements that allow young people to finish their studies.
- Provide teachers and other high school-level stakeholders with communication tools and strategies for countering students' biases against trades and vocational training.
- Explore ways of fighting teachers' biases against trades.
- Diversify and intensify the promotion of trades and in-demand skills.
- Work with employers to develop new training paths, including post-hiring continuing studies programs. Not only will this meet employers' labour needs, it will increase the graduation rate.
- Develop new forms of tutoring inspired by apprenticeship-type models.
- Make professional training more attractive to young people by updating teaching methods with new educational technologies, such as distance learning (in particular for remedial work and tutoring), electronic blackboards and large screens, podcast courses and other electronic media.
- Encourage the business community, in cooperation with educational institutions, to play a larger role in vocational training.

### **Action 9**

### Add student retention incentives and performance management tools to the education system, taking advantage of the act recently passed for that purpose

Quebec schools receive large amounts of funding to help students with difficulties. And yet, after a 2005 investigation into the \$1 billion spent for the purpose in primary and secondary schools, the provincial auditor general noted that he had no satisfactory accounting of where the money went.<sup>28</sup>

With respect to helping students with difficulties, the education community generally agrees on four points:

- Secondary schools' student success programs fail to take the dropout problem seriously enough.
- Secondary schools' student success programs are not subject to systematic results-based evaluation or adjustment.
- When analyzing results, insufficient attention is given to evaluating the professional quality of the services provided.
- Inflexible collective agreements are a major barrier to effective incentives.

In the spring of 2008, the minister of Education, Recreation and Sports expressed regret at the government's limited ability to ensure children's success. She then tabled Bill 88, intended to increase schools' and school boards' responsibility for student success. According to several stakeholders, the *Act to amend the Education Act and other legislative provisions*, which was passed in October 2008, is a significant step toward better performance management. Among other things, partnership agreements will be signed between the Ministère de l'Éducation, du Loisir et du Sport and each school board and between school boards and their schools. The idea is to establish clear agreements that set realistic, measurable goals. After defining goals, the partners will have considerable flexibility in deciding how to achieve the desired results. In exchange, schools and school boards will have to be more accountable and transparent.

This action consists of ensuring that the partnership agreements and student success management programs include clear goals and specific, measurable indicators related to dropout determinants. Dropout risk factors are well known and documented; they include absenteeism, falling behind in school and mother-tongue comprehension and fluency problems. These are all warning signs of dropout risk. The agreements should integrate these objectives and indicators as well as ensure clear accountability.

### Action 10

### Create a Quebec-wide body for joint action on student retention as part of a partnership involving government, education, civil society and business

A large variety of actions involving a broad range of players at the local, regional and provincial levels will have to be undertaken if we are to meet our student retention goals. Satisfactory long-term results will depend on the players' shared vision and cooperation.

This action entails creating a Quebec-wide body for joint action on student retention, with a mandate to achieve the structural effects prerequisite to all the other actions.

<sup>28</sup> Auditor general's report to the National Assembly for 2003–2004.

The body's five main roles will be to:

- Encourage coordination and linkage of the various interventions spearheaded by the government and other partners.
- Share lessons learned and best student retention practices with government departments and local, regional and provincial players.
- Partner with centres of expertise to share specialized knowledge (e.g. the Centre de transfert pour la réussite éducative du Québec).
- Oversee the evaluation of each measure.
- Ensure that all partners sustain their student retention efforts, in particular by measuring their progress against Quebec-wide results and benchmarks.

The body will act as a forum for sharing information among the three organizational levels (provincial, regional and local) responsible for the Quebec-wide student retention effort. Future initiatives will require sustained knowledge sharing between the Quebecwide body and regional and local bodies to ensure that the real-world needs of young people and their families are adequately met.

Key players from various fields will be able to help the appropriate bodies fulfill their responsibilities. These players could include the IRCs, the Centre de transfert pour la réussite éducative du Québec, the Programme de recherche sur la persévérance et la réussite scolaires, universities, CEGEPs and relevant research chairs and groups.

It goes without saying that each action recommended in this section should be consistent with the visions of the government departments concerned, in particular the Ministère de l'Éducation, du Loisir et du Sport. To

#### Figure 21 An approach built around skills development to support student retention



Sources: Groupe d'action sur la persévérance et la réussite scolaires au Québec; McKinsey & Company

ensure this is the case, two monitoring mechanisms appear particularly promising.

The first would be an inter-departmental joint action that would make it possible to ensure, among other things, that government interventions are coordinated. This mechanism could be assigned to a government body with multi-sectoral responsibilities—the Secrétariat à la jeunesse, for example, which coordinates the government's youthrelated interventions and works with non-government players from various environments.

Another monitoring mechanism could be a Quebec roundtable on student retention, which would act as an advisory board for the government, in particular the Ministère de l'Éducation, du Loisir et du Sport.

The goal of the monitoring mechanisms would be to link the various actions and encourage the exchange of expertise and knowledge among the players involved with student retention. Monitoring would also help in setting and maintaining shared targets while respecting each party's jurisdiction. Lastly, the mechanisms should take into account the many actions already implemented in various parts of Quebec. This diversity of existing actions is a success factor because the actions in each community are geared to the specific needs of the region or community concerned.

## Section 6 Expected Results and Required Resources

Taken together, the proposed actions should help Quebec increase its graduation rate among under-20-year-olds by no less than 10% by 2020, pushing the rate to over 80%.

The expected results are based on several assumptions. To go by successful initiatives elsewhere, it is reasonable to expect an increase in the graduation rate; see action 3 (High/Scope Perry Preschool), action 6 (Check & Connect) and action 7 (Pathways). In other cases, the assumptions were developed jointly with the Ministère de l'Éducation, du Loisir et du Sport based on past experience (actions 8 and 9) or jointly with the Ministère de l'Éducation, du Loisir et du Sport and CRÉPAS (action 1). The effect of actions 4 and 5 on the graduation rate is currently difficult to quantify. Lastly, while actions 2 and 10 are necessary conditions for successfully undertaking the other actions, it is difficult to estimate their direct impact on the graduation rate. The assumptions underlying the calculation of expected results are found in Appendix D.

Significant investments will be required in order to reach the objectives: from \$35 million to \$65 million a year over the next three years, then \$140 million to \$240 million annually once every action has been fully implemented.

These estimates are based on the costs of comparable efforts and programs currently in place in schools and communities in Quebec, elsewhere in Canada and in other countries.

We have determined a start-up cost for each action's first three years. The figures assume lower investment levels during the initial phase, while best practices are being identified for a subsequent large-scale launch. Post-third-year costs for large-scale operations include not only implementation over a wider area, but also the cumulative effect of monitoring several cohorts

Graduation rate before age 20





for over ten years. Sources: Statistics Canada; Institut de la statistique du Québec; Ministère de l'Éducation, du Loisir et du Sport; McKinsey & Company of youths concurrently (for example, the cost of an intervention program for all high school grades, not just first-year students). Financial assumptions are presented in Appendix D.

A project of this complexity and magnitude will require commitments from many key players. As it should. The fight to prevent dropouts is everyone's business.

Given the number of people involved, it will be essential to define everyone's role and responsibilities very clearly.

Actions		Annual start up cost (1–3 years), \$M	Annual cost	Potential leaders
Promote e retention	education and student	3–5	3–5	Secrétariat à la jeunesse
Strengthe	n regional involvement	5–10	5–10	Fondation Lucie et André Chagnon; Ministère des Affaires municipales, des Régions et de l'Occupation du territoire
Expand su youths an	upport for disadvantaged d families	sadvantaged Via departmental budgets		Ministère de la Famille et des Aînés; Ministère de la Santé et des Services sociaux
	oilot projects that ent daycare services	2	8–10	Civil society
Conduct p school	pilot projects in primary	2–4	To be determined*	Schools and school boards; Ministère de l'Éducation, du Loisir et du Sport
Strengthe strategy	n the Agir autrement	6–12**	64–105**	Ministère de l'Éducation, du Loisir et du Sport
	mmunity projects in the dvantaged areas	12–24	54–102	Civil society
	and encourage the to vocational training	Via departmental budget		Ministère de l'Éducation, du Loisir et du Sport
	Incorporate incentives and performance management tools		2	Ministère de l'Éducation, du Loisir et du Sport
Create a C joint actio	Quebec-wide body for n	1–3	1–3	Secrétariat à la jeunesse; Ministère de l'Éducation, du Loisir et du Sport
		35-64	137-237	

## Figure 23 Significant resources will be needed to meet targets

## Conclusion

Quebec's high dropout rate requires urgent intervention on a large scale. Fortunately, the movement to lower the dropout rate is already underway, and community action practices are well established.

As proposed by the Action Group, the Quebec-wide effort to increase student retention should:

- Provide the leadership necessary for implementing several student retention initiatives in Quebec's regions and communities.
- Establish sustainable partnerships across Quebec, bringing together government departments, school boards, IRCs, schools, community organizations, municipal bodies and the business community each with a clearly defined role to play.
- Ensure that initiatives, whether new or adapted, have local and regional youth as their starting point and follow the best practices found in Quebec and elsewhere. In other words, initiatives must provide individualized support and continuous monitoring from early childhood on.
- Make the necessary investments across Quebec, eventually on the order of \$140 million to \$240 million a year, bearing in mind that Quebec's dropout problem has an estimated cost of \$1.9 billion a year in lost revenue.
- Establish a protocol for evaluating and measuring the initiatives' results in order to ensure that resources are intelligently allocated and practices are continuously improved.

Implementing these actions is a shared responsibility. Government, the private sector, charitable organizations, stakeholders in the education community, parents, the healthcare sector and community organizations—to name only those—can all contribute to their success. However, for the Quebec-wide effort to succeed, each party needs to have a clearly defined role. Accordingly, the Action Group encourages each party to support student retention and success in Quebec and to assume the lead partner role for a specific action.

The momentum of the Quebec-wide movement launched in the last few months, as seen in the work of the Action Group and the Journées interrégionales des IRC on October 30 and 31, 2008, must be maintained. Such a movement will make student retention a major focus and a priority in dealing with Quebec's economic development issues. It would especially be appropriate for the business community to continue taking part in this movement, which could be spearheaded by a representative of civil society.

Improving student retention will enrich Quebec socially, culturally and economically. An effort of this kind also has the potential to be a turning point in the fight against poverty. Although the challenge is huge, Quebec has what it takes to succeed.

## Appendices

## A. Instances régionales de concertation sur la persévérance scolaire et la réussite éducative (IRCs)

**Abitibi-Témiscamingue** – Entente de partenariat pour la réussite éducative en Abitibi-Témiscamingue

**Bas-Saint-Laurent** – COSMOSS - Communauté ouverte et solidaire pour un monde outillé, scolarisé et en santé

**Capitale-Nationale** – Entente spécifique pour la persévérance et la réussite scolaires et les cheminements en science et en technologie

**Capitale-Nationale** – TPASC - Table de prévention de l'abandon scolaire de Charlevoix

**Centre-du-Québec** – Projet sur la réussite éducative / Table régionale de l'éducation du Centre-du-Québec

**Côte-Nord** – COMITÉ RAP - Réussite -Accomplissement - Persévérance scolaire

**Estrie** – Projet PRÉE - Projet Partenaires pour la réussite éducative en Estrie

**Gaspésie–Îles-de-la-Madeleine** – Vis et Apprends / Live and Learn

**Lanaudière** – CREVALE - Comité régional pour la valorisation de l'éducation

**Laurentides** – PREL - Partenaires de la réussite éducative des jeunes dans les Laurentides

Mauricie - Jeunes en projet, avenir de la Mauricie

Montérégie – Réussite Montérégie

**Montreal** – Carrefour de lutte au décrochage scolaire / Montreal Hooked on School

**Montreal** – Table des partenaires pour la persévérance scolaire à Montréal

Outaouais – TÉO - Table Éducation Outaouais

**Saguenay–Lac-Saint-Jean** – CRÉPAS - Conseil régional de prévention de l'abandon scolaire

## B. Dropout Prevention Initiatives Outside Quebec<sup>29</sup>

#### Canada

Alternative School Bourses du Millénium Literacy Programs Ontario Business Education Partnership Pathways to Education Programme d'action communautaire pour les enfants Spectrum Senior Alternative Student Success Strategy Youth University

### **United States**

Accelerated Middle Schools Intervention Report Achievement for Latinos through Academic Success AVID Boys & Girls Club of America Education Enhancement Program **Career Academies** Check & Connect **Child-Parent Centers** Children at Risk Coca-Cola Valued Youth Program Communities in School Community of Caring Community Parent Education (COPE) **Direct Instruction Fifth Dimension** Financial Incentives for Teen Parents to Stay in School Intervention First Things First Gates Foundation's High Schools Program Head Start **High School Redirection** JobStart Howard Street Tutoring Program I Have a Dream Interpersonal relations/personal growth class Job Corps LA's BEST Maryland's Tomorrow

Middle College High School New Century High Schools New Chance Ninth Grade Dropout Prevention Program Nurse Family Partnership **Opportunity Program** Perry Preschool Project Preventing School Dropout Beginning in Elementary Guides **Project COFFEE** Project GRAD Quantum Reach Out and Read School Transitional Environment Project Seattle Social Development Project Sponsor-a-Scholar Summer Training and Education Program Support Center for Adolescent Mothers Talent Development High School Talent Search Teen Outreach Program Texas Parks and Recreation Department After-School Programs The Incredible Years Twelve Together University Student Athletes Tutoring Program Upward Bound Visite à domicile (Olds)

#### **Elsewhere**

Aim Higher Bridge to Employment Children's University IBM MentorPlace Student-Mentors Take a Chance

<sup>29</sup> Non-exhaustive list.

## C. Additional Case Studies

### **Child-Parent Center**

The Child-Parent Center (CPC) program (Chicago section) aims to help preschoolers and primary school pupils whose academic potential is jeopardized by socio-economic factors. Higher secondary school graduation rates have been a measured benefit, albeit one not seen until several years later.

A core concept of the program is that the family environment has a determining influence on a child's academic success. Interventions therefore include parent training, health and nutrition services, educational enrichment at the preschool level and adaptation of the curriculum in the first three grades of elementary school.

The program focuses on four main areas:

- A preschool and kindergarten enrichment program intended to ease the transition to elementary school. This component consists of preschool for 4-year-olds three hours a day, five days a week.
- An adapted curriculum used from the first through third grades, including guided reading, teachers' aides, instructional supplies and materials, and class sizes limited to 25 children.
- Family services in each school, including health and nutrition services and parent education resources.
- Significant parental involvement with the support of volunteer parents and a budget available to teachers for parental education activities.

The program operates 24 centres in the city of Chicago. The children, ages 3 to 9, are primarily African-American. The cost per student for the fiveyear program is US\$7,500. The program is federally funded.

A longitudinal study of 440 participants noted correlations between achievement levels among participating students and a control group. The data show that educational lags are reduced by nearly one-third among participants, as compared with members of control groups. A similar observation applies to students who are not able to earn a high school diploma by age 20: this number is 20% lower for participants than for control-group members.

The main lessons to be learned from this program are that it benefits from strong parental involvement, coordination of intervention in several areas (e.g. health and education) and a flexible and adaptable set of services and programs.

### **Carolina Abecedarian Project**

The Carolina Abecedarian Project was an experimental preschool program designed to improve social, selfhelp, cognitive and linguistic development from early childhood. It included a significant family services dimension and high-quality educational interventions for children from 4 months to 5 years old (and to age 8 for a subgroup).

The educational component required children's fulltime attendance at a childcare centre. Each child had an individualized set of activities consisting of educational games integrated into their daily lives. Activities focused on social, self-help and cognitive skills, with particular emphasis on language skills. The adapted curriculum, developed by Joseph Sparling and Isabelle Lewis, relied on adult-child interaction and learning activities that could be reproduced by parents. A range of complementary services was also provided. For example, children received medical attention from a nurse practitioner or a pediatrician as well as transportation and meals. A teacher's aide would visit certain children between the ages of 5 and 8 at home, after consulting the teacher to determine the child's needs. She would mediate connections with community services such as housing, healthcare and nutrition.

The Carolina Abecedarian Project was closely monitored through a longitudinal scientific study of 111 children who entered the program between 1972 and 1977. The results confirmed the lasting benefits of early-childhood education. The study found a significant increase in college attendance among participants (35% as compared with 14% for control-group members). The study also found a slight reduction in non-graduation (3%) among study-group members.

This program can serve as a model in several respects: the intensity of intervention among children and parents; coordination of multi-sector interventions such as health and education; and the flexibility and adaptability of services to specific family circumstances.

## **No Child Left Behind**

In 2001, the United States federal government passed the No Child Left Behind Act with the goal of ensuring that all children would be able to read and write by 2014. The No Child Left Behind program (NCLB) has four pillars designed to make that ambitious goal attainable.

First, the program places each school's performance at its centre (the first pillar being "stronger accountability for results"). During NCLB's first year, each school was required to commit to reaching specific annual targets, culminating in academic proficiency for all students by 2014. The federal government has been tracking results since the program's launch. Supplemental services must be provided by schools that do not make progress. If underperformance continues, corrective actions are required. NCLB thus gave the federal government a central role in education for the first time in the country's history.

However, the federal government does not involve itself directly in the specific courses of action taken by schools to meet their targets, as reflected in the second pillar, "more freedom for states and communities." In practice, states and school districts have greater flexibility in the use of federal education funding.

The third pillar, "proven education methods," is the program's instructional quality component. In addition to promoting continuing education for teachers, the government supports the adoption of proven teaching methods. Two government bodies the What Works Clearinghouse and Doing What Works—are devoted to identifying and spreading proven methods respectively.

Lastly, the fourth pillar, "more choices for parents," allows parents to transfer their children out of underperforming schools. This pillar also broadens the range of supplemental educational services made available to children.

Despite several compelling aspects and extensive support, the effectiveness of NCLB's approach remains unproven. Indeed, if improperly applied, the program could lead to undesirable results, such as pressure to teach solely with the aim of producing good scores on standardized tests.

Strict management of school performance, local autonomy, the emphasis on measurable results and the identification and propagation of proven methods are some of the components that could provide inspiration.

### Programme de prévention au primaire de l'Université de Montréal

This Université de Montréal program is designed to reduce disruptive behaviours such as hyperactivity and aggressiveness among primary-school boys, with the ultimate aim of reducing the dropout rate. It was implemented for two years among 149 Caucasian boys age 7 to 9 in 53 Montreal schools located in disadvantaged neighbourhoods.

The program has two main components: developing the children's social skills and developing parenting skills, the two elements considered most likely to have a positive influence on young boys' behaviour. Once they are less disruptive, children can better focus on schoolwork, have a lower incidence of learning disabilities and are at reduced risk of repeating a grade or being transferred out of mainstream classrooms.

Twice a week, a professional meets for 45 minutes with groups of four to six boys to work on positive reinforcement and provide verbal guidance. The intervention also makes use of peer role models. Professionals and teachers meet regularly to facilitate communication and monitor classroom progress.

The professional also works with parents during home visits focused on parenting skills. Parents set goals for their children, learn to better identify problem behaviours and are encouraged to give positive reinforcement and better supervise their children's homework.

The results are convincing. The rate of transfer to special classes and repetition of grades has been reduced by 35%, while the dropout rate by age 17 has fallen by 51%. Moreover, the dropout rate observed in the control group was 22%, but only 11% for the program participants.

The lessons to be learned from this program relate to strong parental involvement, intense intervention with children and their parents, and the adaptability of services to specific family situations.

### *Agir Autrement* à la Polyvalente St-Joseph

As part of the *Agir Autrement* intervention strategy, Polyvalente St-Joseph in Mont-Laurier implemented a rigorous intervention strategy for reducing its students' dropout rate. The strategy targets four fronts:

- Strong leadership from school administrators and the strict application of change management principles, which have allowed the school to build a cohesive team capable of working together to reach clear, precisely defined objectives.
- Systematic measurement of the results of actions taken and of overall program performance. For example, evaluation questionnaires are regularly distributed to staff and students in order to monitor the progress of the action plan and its objectives. Information gathered through these surveys assists in the development of new intervention approaches that respond to any identified shortcomings.
- Continuing education of teachers of lower grades on topics related to at-risk youth and their educational difficulties. Teachers learn to better understand and interact with classes composed of students from disadvantaged backgrounds.
- Improvement of students' sense of belonging and pride in order to create a good climate for learning. The school's team developed pedagogical and extracurricular practices that better meet students' needs. In addition, because students were allowed to choose from among several extracurricular activities, their participation and commitment levels increased markedly.

When these practices were implemented at St-Joseph between 2003 and 2006, the graduation rate increased by 22% in just three years. Moreover, scores on tests of French-language (mother tongue) proficiency, a building block for academic success, also rose significantly.

Strong leadership from the school's administration, systematic measurement of actions and results and the training of educators and other professionals all helped improve the programs aimed at reducing the dropout rate.

### 1,2,3 GO!

The objective of the 1,2,3 GO! initiatives is to promote and sustain community action related to childhood and youth development while encouraging social innovation and knowledge transfer. They seek to bring partners together within a structured organization supported by professional coordinators.

The 1, 2, 3 GO! initiatives have a twofold mission:

- Raise awareness and mobilize the community to take action to ensure toddlers' and pre-schoolers' well-being and foster their sound development.
- Provide support for parental participation in the partnership and the community.

The initiatives' mobilization activities focus on three areas of intervention:

- Bolstering the potential of preschoolers, parents and professionals by providing access to and promoting participation in direct, structured activities aimed at improving their skills and competence.
- Improving family circumstances, the resources and services used and the quality of family life.

 Influencing the population as a whole by raising awareness among the public and decision makers of the needs of very young children and their parents.

For over ten years, the 1,2,3 GO! initiatives, supported by Centraide of Greater Montreal, have led to a number of community projects aimed at early childhood and parental development.

Some of the projects are focused on developing the personal and parenting skills of young parents. For example, the Bambineries foster better parent–child relationships by organizing weekly gatherings, educational excursions and theme activities that allow children and parents to interact, play and share with others.

Other projects prepare preschoolers for school. Interactive reading workshops (ALI-Bébé, ALI-Bambi and ALI-explorateur), play-based stimulation (Le tremplin) and the Prêt pour l'école programs are good examples of projects of this type.

Lastly, refining the Early Development Instrument (EDI) is among the projects focused on using assessment to further understand childhood development.

## D. Assumptions Used in Calculating the Impact and Cost of the Proposed Actions

Each of the proposed actions contributes to reaching the overall objective. This contribution and the related costs are estimated on the basis of similar efforts carried out in Quebec and elsewhere.

- Action 1: A comparison between Quebec, the rest of Canada and countries like Finland reveals considerable differences in the value placed on education. Similar results are observed when graduation rates elsewhere are compared with Quebec's. We believe that establishing a consensus on the need to increase the value Quebecers place on education and student retention would lead to a gain of 1 to 1.5 points in the graduation rate among young people. An annual budget of \$3 million to \$5 million would be sufficient to fund a province-wide awareness campaign.
- Actions 2 and 10: The Quebec-wide body for joint action (action 10) and regional involvement in student retention (action 2) will make it possible to coordinate and implement joint actions on the ground. To some degree, these actions will be catalysts for launching the other actions. From \$1 million to \$3 million a year will be required to hire a team of five to ten professionals across Quebec and from \$5 million to \$10 million a year will be needed to cover the costs related to building regional players (training, increased staffing, etc.).
- Action 3: Going by the experience of the Perry Preschool program in the United States, it would be reasonable to expect that the support provided to at-risk 0- to 5-year-olds by daycare services, through some 5,000 additional (and already planned) places, would lead to a 1.5- to 2-point rise in Quebec's graduation rate. The cost of this measure has already been included in the departmental budget for new places.

- Actions 4 and 5: The pilot projects targeting early childhood (action 4) and primary school (action 5) environments will make it possible to develop both the appropriate intervention methods and a solid fact base to support a larger-scale implementation. The lack of rigorous documentation of the results of these types of intervention prevents us from measuring the impact of these measures on the graduation rate. Conducting two to four community pilot projects in an early childhood environment (on the order of \$500,000 each) and five to ten pilot projects in primary schools (at \$350,000 per project) would cost between \$4 million and \$6 million during the implementation phase (one to three years). The eventual 15 to 20 community-based early childhood projects could cost between \$8 million and \$10 million a year.
- Action 6: If, as part of the *Agir autrement* strategy, proven intervention methods were deployed in 100 to 120 high schools, Quebec's graduation rate would increase by 3 to 5 points. These estimates are based on similar programs that have been proven to reduce the dropout rate among high-risk students by one-third. The cost of such an intervention would be around \$1,000 to \$1,500 per targeted student per year or a total of \$6 million to \$12 million for ten to 20 pilot schools (years 1 to 3) and \$65 million to \$105 million for eventual deployment in 100 to 120 schools.
- Action 7: Community-based projects that target at-risk high school students in 15 to 20 disadvantaged, densely populated neighbourhoods would reduce the dropout rate in these neighbourhoods by more than 80% and ultimately cost between \$50 million and \$100 million a year. This would translate into a 1.5- to 3-point increase in Quebec's graduation rate. The cost of such a program between \$3,000 and \$4,000 per young person

per year—would be between \$12 million and \$24 million in the pilot phase (years 1 to 3), which would target three or four neighbourhoods, and \$54 million to \$102 million for implementation in 15 to 20 disadvantaged neighbourhoods.

- Action 8: Facilitating and encouraging transition to vocational training could reduce the dropout rate while lowering the average age at graduation in the vocational stream, where a large number of students obtain their diploma after turning 20. This measure, whose cost is already included in the departmental budget, could increase the graduation rate among under-20-year-olds by 2 to 3 points.
- Action 9: Equipping the educational system with retention-related incentive measures and performance management tools would make it possible to identify from five to ten at-risk students per high school. These students could then be mentored until they graduated. Implemented in schools not targeted by more intensive strategies, such as *Agir autrement*, this action could raise the graduation rate by 1 to 2 points. The cost of the initial training of school staff on implementing and monitoring student retention-related measures could total \$2 million to \$4 million a year.

## E. List of Persons Interviewed

#### **Education sector**

André Caron, Président, Fédération des commissions scolaires du Québec

Phil Clavel, Principal, LaSalle Community Comprehensive High School

Diane de Courcy, Présidente, Commission Scolaire de Montréal

Louise Dionne, Secrétaire régionale, TRÉPAQ/FP

Pâquerette Gagnon, Directrice générale, Fédération des commissions scolaires du Québec

**Pierre Gosselin**, Directeur du service de la gestion, Comité de gestion de la taxe scolaire

Michel Gravel, Directeur Général, Cégep de Jonquière

**Richard Guillemette,** Directeur, École secondaire Monseigneur-Richard (Commission scolaire Marguerite Bourgeois)

**Patrick Lazzaroni**, Directeur, École secondaire d'Oka (Commission scolaire de la Seigneurie-des-Mille-Îles)

Kevin O'Hearn, Enseignant, École Secondaire Jean-Gauthier

Sylvain Ouellet, Directeur, École Secondaire Jean-Gauthier

François Paquette, Directeur Régional, Ministère de l'Éducation, du Loisir et du Sport

**Serge Pelletier,** Président, Association des DG de commissions scolaires du Québec

**Stéphane Quirion**, Directeur, Polyvalente Bélanger (Commission scolaire de la Beauce-Etchemin)

**Diane Sirard**, Ex-Directrice, Polyvalente St-Joseph (Commission scolaire Pierre-Neveu)

**Camil Turmel**, Consultant, Fédération des commissions scolaires du Québec

#### Government

Abdou Baalouch, Chef de service Stratégie d'action jeunesse, Secrétariat à la jeunesse

Line Bérubé, Sous-ministre adjointe, volet famille, Ministère de la Famille et des Ainés, Government of Quebec

**André Blanchet**, Formation professionnelle et technique et formation continue (FPTFC), Ministère de l'Éducation, du Loisir et du Sport

**Smaïl Bouikni**, Formation professionnelle et technique, Ministère de l'Éducation, du Loisir et du Sport

**Catherine Ferembach**, Secrétaire adjointe, Ministère du Conseil exécutif, Secrétariat à la jeunesse, Government of Quebec

**René Lapierre**, Formation professionnelle et technique et formation continue (FPTFC), Ministère de l'Éducation, du Loisir et du Sport

**Michelle Lapointe**, Sous-ministre adjointe à la formation professionnelle et technique et à la formation continue, Ministère de l'Éducation, du Loisir et du Sport

**Bernard Matte,** Sous-ministre adjoint, Ministère de l'Emploi et de la Solidarité sociale

**Claude Moisan,** Formation générale des jeunes, Ministère de l'Éducation, du Loisir et du Sport

**Rémi Nadeau**, Direction de la statistique et du soutien aux expérimentations, Ministère de l'Emploi et de la Solidarité sociale

**François Paquette,** Directeur régional du Saguenay–Lac-Saint-Jean pour le ministère de l'Éducation, du Loisir et du Sport

Alain Poirier, Directeur national de santé publique et sousministre adjoint, Ministère de la Santé et des Services sociaux

Alain Rousseau, Économiste, Direction générale de la formation professionnelle et technique

**Denis Royer,** Formation professionnelle et technique et formation continue (FPTFC), Ministère de l'Éducation, du Loisir et du Sport

**Robert Sauvé**, Sous-ministre associé aux régions, Ministère des Affaires municipales, des Régions et de l'Occupation du territoire, Government of Quebec

Alain Veilleux, Sous-ministre adjoint, Ministère de l'Éducation, du Loisir et du Sport

#### **Regional bodies**

Josée Brassard, Réussite – Accompagnement – Persévérance scolaire

Marie-Claude Côté, Conseil régional de prévention de l'abandon scolaire

Lyne Deschamps, Partenaires de la réussite éducative des jeunes dans les Laurentides

Michèle Glémaud, Carrefour de lutte au décrochage scolaire Camille Gendron, Projet Partenaires pour la réussite éducative en Estrie

Johanne McMillan, Comité régional pour la valorisation de l'éducation

Annie Simard, Table de prévention de l'abandon scolaire de Charlevoix

Frédéric Tremblay, Conseil régional de prévention de l'abandon scolaire

Pascale Vincelette, Réussite Montérégie

#### Researchers

**Nadine Arbour,** Étude des conditions de vie et des besoins de la population (Groupe ÉCOBES)

Michael Barber, Expert Partner, McKinsey & Company Alan Fitzgerald, Economist, McKinsey & Company Laurier Fortin, Professeur titulaire, Université de Sherbrooke Pierre Fortin, Économiste et journaliste, UQAM, L'Actualité Michel Janosz, Professeur agrégé, Université de Montréal

**Michel Perron,** Professeur à l'UQAC, titulaire de la Chaire UQAC - Cégep de Jonquière sur les conditions de vie, la santé et les aspirations des jeunes

**Suzanne Veillette**, Étude des conditions de vie et des besoins de la population (Groupe ÉCOBES)

#### **Business community**

Denis Beauregard (Action Group Secretary), Percom inc.

André Brodeur, McKinsey & Company

Jacques Chamberland, McKinsey & Company

Éric Lamarre, McKinsey & Company

L. Jacques Ménard, O.C. (Action Group Chair), President, BMO Financial Group

**Claude MontMarquette,** Économiste, Université de Montréal, CIRANO

Daniel Parent, Economist, McGill University

Henri-Paul Rousseau, Vice-Chairman of the Board, Power Corporation of Canada

Abraham Zilkha, Alumnus, Boston Consulting Group

#### **Non-profit organizations**

**Carolyn Acker**, Chief Executive Officer, Pathways to Education

Matthew Airhart, National Director of Development and Communications, Pathways to Education

Bineta Ba, Directrice, ROCQLD

**Julie Brousseau,** Conseillère en petite enfance, Équipe veille stratégique et performance, Développement des enfants et des communautés

Lyse Brunet, Québec Enfants

Jean-Marc Chouinard, Vice-président développement enfants et communautés, Fondation Lucie et André Chagnon

Sandra L. Christenson, Professor and founder of Check & Connect

Patricia Clark, Program Manager, Career Academy Support Network

Pierre Côté, Président, directeur général, Toujours ensemble

**Éric Darveau,** Chef, développement, Fondation Lucie et André Chagnon

Charles Dayton, Coordinator, Career Academy Support Network

**Suzanne Desjardins**, Gestionnaire de projet en persévérance scolaire, Fondation Lucie et André Chagnon

Sophie Harnois, Directrice des opérations, Fondation Lucie et André Chagnon

Jean-Pierre Hotte, Association des centres jeunesse du Québec

**Mirelle Jetté**, Chef, veille stratégique, Fondation Lucie et André Chagnon

**David R. Johnson**, Senior Associate Dean for Research and Policy, Director, Institute on Community Integration, College of Education and Human Development

Dr. Gilles Julien, Fondation pour la promotion de la pédiatrie sociale

Colleen Kaibel, Coordinator for Minneapolis Public Schools, Check & Connect

Susan Katzman, President of the Board of Directors, National Career Academy Coalition

Jean-François Lapointe, Directeur, L'Ancre des Jeunes

Sophie Latour, Passeport pour ma réussite

Yves Lévesque, Vivre St-Michel en Santé

**Claude Masse,** Allocations Manager, Centraide of Greater Montreal

Ann Mavis, Coordinator, College of Education and Human Development

**Norman Rowen,** Director of Research and Evaluation, Pathways to Education

Mathieu Sage, Directeur de programme, Passeport pour ma réussite

Michèle Thibodeau-DeGuire, President and Executive Director, Centraide of Greater Montreal

Roxane Thibault, Représentante de la Maison des jeunes

Susan Tidyman, State/Regional Coordinator, Career Academy Support Network

#### Other

Éric Cadieux, Coordonnateur du Chantier d'accompagnement, Réseau des Carrefours jeunesse-emploi du Québec

Linda Millette, Agente d'accueil, Carrefour jeunesse-emploi d'Autray-Joliette

Monica St-Pierre, Organisatrice communautaire du CLSC

## F. Bibliography

#### Studies, surveys and sociodemographic data

- ALEXANDER, Karl L., Doris R. ENTWISLE and Nader S. KABBANI. "The Dropout Process in Life Course Perspective: Early Risk Factors at Home and School," *Teachers College Record* 103, no. 5 (October 2001): 760–822.
- AMOS, Jason. *Dropouts, Diplomas, and Dollars: U.S. High Schools and the Nation's Economy.* Washington: Alliance for Excellent Education, 2008.
- BELFIELD, Clive R., and Henry M. LEVIN. *The Economic Losses from High School Dropouts in California*. Santa Barbara: California Dropout Research Project, University of California, August 2007.
- ———. "The Return on Investment for Improving California's High School Graduation Rate." *Policy Brief* 2, California Dropout Research Project, University of California at Santa Barbara (August 2007).
- BOUIKNI, Smaïl, and Jean TREMBLAY. La formation professionnelle et technique au Québec : un aperçu. Quebec City: Ministère de l'Éducation, du Loisir et du Sport, 2008.
- BRIDGELAND, John M., John J. DIIULIO, Jr. and Karen BURKE MORISON. *The Silent Epidemic: Perspectives of High School Dropouts*. Washington: Civic Enterprises, 2006.
- BUSHNIK, Tracey. Learning, Earning and Leaving: the Relationship Between Working While in High School and Dropping Out. Research Paper 4, catalogue no. 81-595-MIE2003004. Ottawa: Culture, Tourism and the Centre for Education Statistics, Statistics Canada, 2003.
- CÔTÉ, Sylvana. *Day Care Attendance Prevents Early Chronic Physical Aggression*. PowerPoint presentation, GRIP, CHU Sainte-Justine, Université de Montréal, September 2008.
- CUTLER, David M. "Education and Health: Evaluating Theories and Evidence." Working Paper 12352, National Bureau of Economic Research (Cambridge, MA), 2006.
- DIRECTION DE LA RECHERCHE, DES STATISTIQUES ET DE L'INFORMATION. *Indicateurs de l'éducation – Édition 2008*. Quebec City: Secteur de l'information et des communications, Ministère de l'Éducation, du Loisir et du Sport, 2008.
- DIRECTION DES STATISTIQUES ET DES ÉTUDES QUANTITATIVES. *La rentabilité du diplôme*. Bulletin statistique de l'éducation no 8. Quebec City: Ministère de l'Éducation, du Loisir et du Sport, 1999.
- DROUIN, Carl, et al. *Grandir en Qualité 2003: Enquête québécoise sur la qualité des services de garde éducatifs.* Quebec City: Institut de la statistique du Québec, 2004.
- GROSSMAN, Michael. "The Correlation Between Health and Schooling." In *Household Production and Consumption*. Edited by Nestor E. Terleckyi. New York: Columbia University Press, 1975, p. 147–211.
- HECKMAN, James J., and Dimitriy V. MASTEROV. "The Productivity Argument for Investing in Young Children."

Working Paper 13016, National Bureau of Economic Research (Cambridge, MA), 2007.

- INSTITUT DE LA STATISTIQUE DU QUÉBEC. Annuaire québécois des statistiques du travail: Portrait des principaux indicateurs du marché du travail 1999–2007. Vol. 4, no. 1. Quebec City: Gouvernement du Québec, 2008.
- JAPEL, Christa. "Factors of Risk, Vulnerability and School Readiness Among Preschoolers: Evidence from Quebec," *IRPP Choices*, vol. 14, no. 16 (2008).
- JAPEL, Christa, Richard E. TREMBLAY and Sylvana CÔTÉ. "La qualité, ça compte! Résultats de l'Étude longitudinale du développement des enfants du Québec," *IRPP Choix*, vol. 11, no. 4 (2005).
- LAIRD, Jennifer, et al. *Dropout and Completion Rates in the United States: 2006.* Jessup, MD: National Center for Education Statistics, 2008.
- LANDRY, Laura, and Maire SINHA. "Adult Correctional Services in Canada, 2005/2006." Juristat vol. 28, no. 6, Statistics Canada Catalogue no. 85-002-XIE, Canadian Centre for Justice Statistics (Ottawa), 2008.
- LAPOINTE, Pierre, Jean ARCHAMBAULT and Roch CHOUINARD. *L'environnement éducatif dans les écoles publiques et la diplomation des élèves de l'île de Montréal.* Montreal: Comité de gestion de la taxe scolaire de l'île de Montréal, 2008.
- LAURIE, Nate. *The Cost of Poverty: an Analysis of the Economic Cost of Poverty in Ontario.* Toronto: Ontario Association of Food Banks, 2008.
- LEHR, Camilla A., et al. *Essential Tools Increasing Rates* of School Completion: Moving from Policy and Research to Practice. Minneapolis: National Center on Secondary Education and Transition (Institute on Community Integration, University of Minnesota), 2004.
- LEVIN, Henry, et al. 'The Costs and Benefits of an Excellent Education for All of America's Children." Working Paper, Teachers College, Columbia University, 2006.
- LOCHNER, Lance. "Education, Work, and Crime: A Human Capital Approach." Working Paper 10478, National Bureau of Economic Research (Cambridge, MA), 2004.
- LOCHNER, Lance, and Enrico MORETTI. "The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self-Reports," *The American Economic Review*, vol. 94 (March 2004), p. 155–189.
- McCRARY, Justin, and Heather ROYER. "The Effect of Female Education on Fertility and Infant Health: Evidence from School Entry Policies Using Exact Date of Birth." Working Paper 12329, *National Bureau of Economic Research* (Cambridge, MA), 2006.
- MÉNARD, L. Jacques, and Denis BEAUREGARD. Si on s'y mettait.... Montreal: Les Éditions Transcontinental, 2008.
- MOREAU, Lisette. *La pauvreté et le décrochage scolaire ou la spirale de l'exclusion*. Quebec City: Ministère de la Sécurité et du Revenu, 1995.

OECD. Education at a Glance 2008: OECD Indicators. Paris, 2008.

PARENT, L., et al. "Que savons-nous des causes de l'abandon scolaire dans la région des Laurentides ?" Rapport de recherche, Partenaires de la réussite éducative des jeunes dans les Laurentides, 2006.

PERRON, Michel, et al. *Site interactif d'indicateurs spatialisés de persévérance et de réussite scolaires*. Groupe ÉCOBES, Cégep de Jonquière, 2005.

QUEBEC, MINISTÈRE DE L'ÉDUCATION. Le cheminement des élèves, du secondaire à l'entrée à l'université. Quebec City, 2004.

QUEBEC, MINISTÈRE DE L'ÉDUCATION, DE LOISIR ET DU SPORT. Résultats aux épreuves uniques de juin 2007 et diplomation. Quebec City, 2008.

REYNOLDS, Arthur J. Success in Early Intervention: The Chicago Child-Parent Centers. Lincoln: University of Nebraska Press, 2000.

ROBITAILLE, Clément, Jean-Pierre GUAY and Caroline SAVARD. *Portrait de la clientèle correctionnelle du Québec 2001*. Quebec City: Direction générale des services correctionnels – Ministère de la Sécurité publique, Société de Criminologie, 2002.

SAXTON, Jim. *Investment in Education: Private and Public Returns*. Report prepared for the U.S. Congress Joint Economic Committee, Washington, 2000.

SÉVIGNY, Danielle. *Portrait du décrochage scolaire* à *Montréal*. Montreal: Table des partenaires pour la persévérance scolaire à Montréal, 2006.

SHAIENKS, Danielle, and Thomas GLUSZYNSKI. "Participation in Postsecondary Education: Graduates, Continuers and Drop Outs, Results from YITS Cycle 4." Research paper 81-595-MIE2007059, Culture, Tourism and the Centre for Education Statistics (Ottawa), 2007.

## Description, analysis and evaluation of programs and initiatives (case studies)

BILL & MELINDA GATES FOUNDATION. All Students College-Ready: Findings from the Foundation's Education Work 2000–2006, 2006.

BOSTON CONSULTING GROUP. BCG Assessment of Pathways to Education: Executive Summary. Presentation, July 16, 2007.

CAMPBELL, Frances A., and Craig, T. RAMEY. *Carolina Abecedarian Project*. Presentation at the National Invitational Conference of the Early Childhood Research Collaborative, University of Minnesota Center for Early Education and Development, December 2007.

COMPREHENSIVE SCHOOL REFORM QUALITY CENTER. CSRQ Center Report on Middle and High School Comprehensive School Reform Models. Washington, 2006. CONSEIL PERMANENT DE LA JEUNESSE. *Répertoire des organismes jeunesse du Québec*. Quebec City: Gouvernement du Québec, 2007.

CUNNINGHAM, Charles. E., Rebecca B. BREMNER and Michael BOYLE. "Large Group Community-Based Parenting Programs for Families of Preschoolers at Risk for Disruptive Behaviour Disorders: Utilization, Cost Effectiveness, and Outcome," *Journal of Child Psychology and Psychiatry and Allied Disciplines*, vol. 36 (1995): p. 1141–1159.

DIRECTION GÉNÉRALE DE LA FORMATION DES JEUNES. Passe-Partout : Un soutien à la compétence parentale. Cadre d'organisation destiné aux gestionnaires, aux intervenantes et aux intervenants. Quebec City: Ministère de l'Éducation, 2003.

DYNARSKI, Mark, and Philip GLEASON. "How Can We Help? What We Have Learned from Evaluations of Federal Dropout- Prevention Programs." Assistance Program Evaluation submitted to U.S. Department of Education by Mathematica Policy Research, Princeton (NJ), 1998.

EDUCATION TRUST. *The ABCs of "AYP": Raising Achievement for All Students*, updated July 2004.

HAMMOND, Cathy, et al. *Dropout Risk Factors and Exemplary Programs: A Technical Report*. Clemson, SC and Alexandria, VA: National Dropout Prevention Center and Communities in Schools Inc., 2007.

HELLSTRÖM, Agneta. *COPE – The Community Parent Education Program: Best Practice for Better Health.* Presentation at the Sixth IUPHE European Conference on the Effectiveness and Quality of Health Promotion (Stockholm), 2005.

JANOSZ, Michel, and Marc-André DENIGER. "Évaluation de programmes de prévention du décrochage scolaire pour adolescents de milieux défavorisés, 1998–2000." Research review report, CRIRES and IRDS (Montreal), 2001.

JANOSZ, Michel, Jean-Sébastien FALLU and Marc-André DENIGER. "La Prévention du décrochage scolaire : facteurs de risque et efficacité des programmes d'intervention." In *Prévention des problèmes d'adaptation chez les enfants et les adolescents, Tome II : Les problèmes externalisés*. Edited by Frank Vitaro and Claude Gagnon. Sainte-Foy: Presses de l'Université du Québec, 2000, p. 117–164.

KEMPLE, James J. Career Academies: Impacts on Labor Market Outcomes and Educational Attainment. New York: MDRC, 2004.

KEMPLE, James J., and Corinne M. HERLIHY. *The Talent* Development High School Model: Context, Components, and Initial Impacts on Ninth-Grade Student's Engagement and Performance. New York: MDRC, 2004.

KEMPLE, James J., Corinne M. HERLIHY and Thomas J. SMITH. Making Progress Toward Graduation: Evidence from the Talent Development High School Model. New York: MDRC, 2005. NATIONAL EVALUATION OF HIGH SCHOOL

TRANSFORMATION, AMERICAN INSTITUTES FOR RESEARCH, and SRI INTERNATIONAL. Evaluation of the Bill & Melinda Gates Foundation's High School Grants Initiative: 2001–2005 Final Report. Prepared for The Bill & Melinda Gates Foundation, 2006.

———. Changes in Rigor, Relevance, and Student Learning in Redesigned High Schools. Prepared for The Bill & Melinda Gates Foundation, 2007.

- NIX, Robert. "Improving Parental Involvement: Evaluating Treatment Effects in the Fast Track Program," *The Evaluation Exchange*, vol. X, no. 4 (2004), p. 4–5.
- OLDS, David L., et al. "Long-term Effects of Home Visitation on Maternal Life Course and Child Abuse and Neglect: Fifteen-Year Follow-up of a Randomized Trial," *The Journal of the American Medical Association*, vol. 280 no. 14 (1998), p. 1238–1244.
- PUNGELLO, Elizabeth. *Early Learning, Later Success: The Abecedarian Study.* PowerPoint presentation, Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill, 1999.
- QUINT, Janet, et al. *The Challenge of Scaling Up Educational Reform: Findings and Lessons from First Things First*. New York: MDRC, 2005.
- REDD, Zakia, et al. *Academic Achievement Programs and Youth Development: A Synthesis.* Washington: Child Trends Inc., 2002.

REGROUPEMENT DES ORGANISMES COMMUNAUTAIRES QUÉBÉCOIS DE LUTTE AU DÉCROCHAGE (ROCQLD). *Rapport d'activités 2006–2007.* Montreal, 2007.

RESEARCH AND TRAINING CENTER FOR CHILDREN'S MENTAL HEALTH. Summary of "Initial Impact of the Fast Track prevention trial for conduct problems" by Conduct Problems Prevention Research Group. In *Data Trends*, no. 23 (2000), Louis de la Parte Florida Mental Health Institute, University of South Florida.

- ROBERTSON, Andrée. *Répertoire de mesures réputées avoir une incidence positive sur la réussite et la persévérance scolaire*. Gatineau: Université du Québec en Outaouais, Projet d'intervention-recherche sur le décrochage scolaire au secondaire dans l'Outaouais, 2004.
- TAYLOR, Alisa. *Pathways for Youth to the Labour Market: An Overview of High School Initiatives*. Pathways to the Labour Market Series no. 3. Ottawa: Canadian Policy Research Networks, 2007.

VITARO, Frank, Mara BRENDGEN and Richard E. TREMBLAY. "Prevention of School Dropout Through the Reduction of Disruptive Behaviors and School Failure in Elementary School," *Journal of School Psychology*, vol. 37, no. 2 (1999), p. 205–226.

WHAT WORKS CLEARINGHOUSE. Dropout Prevention. WWC Topic Report. Princeton: Institute of Education Sciences, 2007.

## Reports and articles on intervening with young people

BARTON, Paul E. One-Third of a Nation: Rising Dropout Rates and Declining Opportunities. Policy Information Report. Princeton: Educational Testing Service, 2005.

CAPUANO, France, et al. "L'impact de la fréquentation préscolaire sur la préparation scolaire des enfants à risque de manifester des problèmes de comportement et d'apprentissage à l'école," *Revue des sciences de l'éducation*, vol. 27, no. 1 (2001), p. 195–228.

CHAPLIN, Duncan D., Mark D. TURNER and Andreas D. PAPE. "Minimum Wages and School Enrolment of Teenagers: A Look at the 1990s," *Economics of Education Review*, vol. 22 (2003), p 11–21.

- CONSEIL PERMANENT DE LA JEUNESSE. Je décroche, tu décroches... est-ce que nous décrochons? Avis sur le décrochage scolaire et social au secondaire. Quebec City: Gouvernement du Québec, 2002.
- DEL BONO, Emilia, and Fernando GALINDO-RUEDA. "Do a Few Months of Compulsory Schooling Matter? The Education and Labour Market Impact of Schooling Leaving Rules." IZA Discussion Paper no. 1233, Institute for the Study of Labor (Bonn), 2004.
- FPG CHILD DEVELOPMENT INSTITUTE and THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL. "Celebrating 40 Years," *Early Developments*, vol. 10, no. 1 (2006).
- GOYETTE, Martin. "Promoting Autonomous Functioning Among Youth in Care: A Program Evaluation," *New Directions for Youth Development: Theory, Practice, and Research*, no. 113 (2008), p. 81–105.
- GOYETTE, Martin, Amélie MORIN and Jean BOISLARD. "Le projet Qualification des jeunes : le passage à la vie adulte des jeunes recevant des services des centres jeunesse," *Intervention*, no. 129 (2008), p. 16–27.
- GOYETTE, Martin, et al. "Le soutien au passage à la vie adulte des jeunes recevant des services des centres jeunesse," *Éducation et francophonie. Revue scientifique virtuelle*, no. 35, 1 (2007), p. 95–119.

GOYETTE, Martin, et al. "Projet d'intervention intensive en vue de préparer le passage à la vie autonome et d'assurer la qualification des jeunes des centres jeunesse du Québec : Rapport final d'évaluation." Report submitted to the National Crime Prevention Centre and the Association des centres jeunesse du Québec, 2007.

INSTANCES RÉGIONALES DE CONCERTATION SUR LA PERSÉVÉRANCE SCOLAIRE ET LA RÉUSSITE ÉDUCATIVE DU QUÉBEC. Les parents : des acteurs clés pour la persévérance scolaire et la réussite éducative. PowerPoint presentation, 32nd annual convention of the Fédération des comités de parents du Québec, 2008.

LEMELIN, Jean-Pascal, and Michel BOIVIN. *Mieux réussir dès* la première année : l'importance de la préparation à l'école. Vol. 4, fascicule 2. Quebec City: Institut de la Statistique du Québec, 2007.

PERRON, Michel, et al. Trajectoires d'adolescence : stratégies scolaires, conduites sociales et vécu psychoaffectif. Faits saillants de la phase II – Enquête régionale 1997 "Aujourd'hui les jeunes du Saguenay-Lac-Saint-Jean." Jonquière: Groupe ÉCOBES, Cégep de Jonquière, 1999.

POTVIN, Pierre, et al. *Guide de prévention du décrochage scolaire : deuxième édition.* Quebec City: Centre de transfert pour la réussite éducative du Québec, 2007.

QUEBEC, MINISTÈRE DE L'EMPLOI ET DE LA SOLIDARITÉ SOCIALE et al. Plan d'action gouvernemental en matière de lutte contre la pauvreté et l'exclusion sociale 2004–2009 : Bilan de la troisième année. Quebec City: Gouvernement du Québec, 2007.

QUEBEC, SECRÉTARIAT À LA JEUNESSE. Pour une jeunesse engagée dans sa réussite : Stratégie d'action jeunesse 2006–2009. Quebec City: Gouvernement du Québec, 2006.

TABLE ESTRIENNE DE CONCERTATION INTERORDRES EN ÉDUCATION. 2006–2016 Mobilization and Action Plan to Counter Drop-out and Boost the Qualifications and Graduation Rate of Young Estriens. Magag, 2006.

VEILLETTE Suzanne, et al. *Parcours scolaires au secondaire et au collégial. Étude longitudinale auprès des élèves saguenéens et jeannois âgés de 14 ans en 2002.* Jonquière: Groupe ÉCOBES, Cégep de Jonquière, 2007.

#### **Other relevant documents**

- APPLIED RESEARCH BRANCH, STRATEGIC POLICY. Dropping Out of High School: Definitions and Costs. Hull: Human Resources Development Canada, 2000.
- AUDAS, Richard, and J. Douglas WILLMS. *Engagement and Dropping Out of School: A Life-Course Perspective*. Hull: Applied Research Branch, Human Resources Development Canada, 2001.
- BARBER, M. "The Case for Raising the Participation Age." In Staying the Course: Changes to the Participation Age and Qualifications. Edited by Conor Ryan. London: The Social Market Foundation, 2008, p. 25–34.

BAUM, Sandy, and Jennifer MA. *Education Pays – The Benefits of Higher Education for Individuals and Society*. Trends in Higher Education Series. Washington: College Entrance Examination Board, 2007.

CHING, Charlene, and Eliza KRITIKOS. *Study on Access to Education and Training, Basic Skills and Early School Leavers*. European Commission DG EAC 38/40. London: GHK, 2005.

COHEN, Mark A. "The Monetary Value of Saving a High-Risk Youth," *Journal of Quantitative Criminology*, vol. 14, no. 1 (1998), p. 5–33.

COMMISSION DES SERVICES JURIDIQUES. 35e rapport annuel de gestion, 2006–2007. Montréal, 2007. DESLANDES, Rollande, and Richard BERTRAND. "Une meilleure harmonisation des services offerts aux jeunes à risque et à leur famille : que savons-nous?" *Santé mentale au Québec*, 27, no. 2 (2002), p. 136–153.

FIELD, Simon, Malgorzata KUCZERA and Beatriz PONT. No More Failures: Ten Steps to Equity in Education, Education and Training Policy. Paris: OECD, 2007.

FORTIN, Pierre. Les sans-diplôme au Québec : portrait d'ensemble. PowerPoint presentation, 2008.

GOODWIN, Bryan, et al. Understanding No Child Left Behind: A Report on The No Child Left Behind Act of 2001 & Its Implications for Schools, Communities & Public Support for Education. Aurora, CO: Mid-continent Research for Education and Learning, 2002.

GOUVERNEMENT DU QUÉBEC. L'Éducation, l'avenir du Québec : Rapport sur l'accès à l'éducation. Quebec City: Ministère de l'Éducation, du Loisir et du Sport, 2005.

LEVIN, Henry M., et al. The Costs to the Nation of Inadequate Education. A Report Prepared for the Select Committee on Equal Educational Opportunity of the United States Senate. Washington: U.S. Congress, 1972.

- NGA CENTER FOR BEST PRACTICES. A Primer on No Child Left Behind, Washington, n.d.
- OECD. Attracting, Developing and Retaining Effective Teachers – Country Background Report for Finland. Paris, 2003.

———. Education at a Glance: OECD Indicators. Paris, 2008

- ———. Improving School Leadership Volume 2: Case Studies on System Leadership. Summary. Paris, 2008.
- OREOPOULOS, Philip. "Do Dropouts Drop Out Too Soon? International Evidence From Changes in School-Leaving Laws." Working Paper 10155, National Bureau of Economic Research (Cambridge, MA), 2003.
- ---. "Stay in School: New Lessons on the Benefits of Raising the Legal School-Leaving Age." Commentary no. 223, C.D. Howe Institute (Ottawa), 2005.
- ----. "The Compelling Effects of Compulsory Schooling: Evidence from Canada," *Canadian Journal of Economics*, vol. 36, no. 1 (2006), p. 22–52.
- ----. "Would More Compulsory Schooling Help Disadvantaged Youth? Evidence from Recent Changes to School-Leaving Laws." In *An Economic Perspective on the Problems of Disadvantaged Youth*. Edited by Jonathan Gruber. Toronto: University of Chicago Press, 2008.
- PERRON, Michel. *Mobiliser l'ensemble des régions pour* soutenir la persévérance scolaire des jeunes : les conditions gagnantes. PowerPoint presentation, Groupe ÉCOBES and CRÉPAS (Jonquière, QC), 2008.

PERRON, Michel, and Suzanne VEILLETTE. L'abandon scolaire : des enjeux stratégiques pour le développement régional. Report presented at the Mini-colloque sur le décrochage scolaire, Groupe ÉCOBES, (Alma, QC), April 1996.

QUEBEC, MINISTÈRE DE L'ÉDUCATION, DU LOISIR ET DU SPORT. *Rapport annuel de gestion 2006–2007*. Quebec City: Gouvernement du Québec, 2007.

----. Situation des jeunes en formation professionnelle, principaux indicateurs. PowerPoint presentation, November 2006.

QUEBEC, MINISTÈRE DE L'EMPLOI ET DE LA SOLIDARITÉ SOCIALE. *Rapport annuel de gestion 2007–2008*. Quebec City: Gouvernement du Québec, 2008.

QUEBEC, MINISTÈRE DE LA FAMILLE ET DES AÎNÉS. Rapport annuel de gestion 2007–2008. Quebec City: Gouvernement du Québec, 2008.

QUINT, Janet. *Meeting Five Critical Challenges of High School Reform: Lessons from Research on Three Reform Models.* Executive Summary. New York: MDRC, 2006.

REMARAIS, Fritz-Herbert, and Francis CRÉPEAU. *Rapport* statistique sur la clientèle des programmes d'assistance sociale. Quebec City: Ministère de l'Emploi et de la Solidarité sociale, Direction de la recherche, de l'évaluation et de la statistique, 2008.

ROWAN, Brian, and Robert J. MILLER. "Organizational Strategies for Promoting Instructional Change: Implementation Dynamics in Schools Working with Comprehensive School Reform Providers," *American Educational Research Journal*, vol. 44, no. 2 (2007), p. 252–297.

SAHLBERG, Pasi. *Raising the Bar: How Finland Responds to the Twin Challenge of Secondary Education*, Washington: World Bank, 2006.

SUPOVITZ, Jonathan A., and Brooke SNYDER TAYLOR. "Systemic Education Evaluation: Evaluating the Impact of Systemwide Reform in Education." *American Journal of Evaluation* 26, no. 204 (2005), p. 204–230.

VÉRIFICATEUR GÉNÉRAL DU QUÉBEC. Rapport du Vérificateur général à l'Assemblée nationale pour l'année 2003–2004. Quebec City, 2005.

VERNEZ, Georges, Richard A. KROP and C. Peter RYDELL. Closing the Education Gap: Benefits and Costs. Santa Monica: RAND, 1999.

ZAJC, Milena. Persévérance scolaire – Contribution des entreprises: Revue de littérature et recueil de pratiques, Montreal: Table des partenaires pour la persévérance scolaire à Montréal, 2006.