# Twelve Flawed Statements of the Fraser Institute on Quebec's Childcare Program

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"Measurement is the foundation for all our work. Careful, accurate, rigorous measurement. In addition, the source of our data is always provided."

From the Fraser Institute's website

In March of this year, the Fraser Institute of Vancouver (FI) put out a *Research Bulletin* authored by analysts Vincent Geloso and Ben Eisen, arguing that Quebec's childcare program was "flawed" (Geloso and Eisen 2017). Geloso is an associate researcher of the Montreal Economic Institute (MEI), and Eisen is Director of Provincial Prosperity Studies at FI. The *Bulletin* is an expanded version of two July 2015 op-eds published in *La Presse* and the *National Post* by MEI president Michel Kelly-Gagnon and analyst Yanick Labrie, now an FI senior fellow (Kelly-Gagnon and Labrie 2015a, 2015b).

The FI *Bulletin* is here:

https://www.fraserinstitute.org/sites/default/files/quebecs-daycare-program.pdf

The two FI authors base their negative assessment of Quebec's childcare program on twelve statements. They can be summarized as follows:

- 1) The costs of Quebec's childcare program have followed an explosive path.
- 2) The increase in Quebec mothers' labour force participation has been largely due to the Employment Insurance reform of 1996, not to the new childcare program introduced in 1997.
- 3) The increase in young women's labour force participation in Quebec since 1997 cannot be explained by the childcare program since participation has increased as much in Atlantic Canada, in spite of there being no subsidized childcare program in the Eastern provinces.
- 4) Only 40% of the cost of the childcare subsidy is recovered by government according to studies, so that the claim that Quebec's childcare program "pays for itself" is unfounded.

- 5) The increase in young women's labour force participation in Quebec cannot be attributed to the childcare program since older women have experienced an even larger increase in participation.
- 6) Quebec's childcare program has led fathers to supply fewer hours of work.
- 7) The introduction of a Quebec-style childcare program in other provinces today would have a smaller impact on women's employment than it has had in Quebec because the participation rates in these provinces today are higher to begin with than in the Quebec of 20 years ago.
- 8) The impact of Quebec's childcare program on child development outcomes has been negative.
- 9) Although the childcare program is said to be universal, it has not solved the problem of waiting lists for childcare spaces.
- 10) Although the childcare program is said to be universal, lower-income families are still less likely to get a childcare space than upper-income families.
- 11) The childcare program has been a boon for richer households.
- 12) Evidence has shown that cognitive gains from participation in centre-based childcare tend to fade out quickly and are gone nearly entirely by the third grade.

In this note, I examine the arguments on which these statements are based. I find all twelve to be flawed.

# Quebec's childcare system in a nutshell

What is Quebec's childcare program? Since 1997, this province has run a low-fee universal childcare program with two explicit objectives: (1) improve work/life balance and (2) enhance child development and equality of opportunity. Currently, regardless of their employment, marital or income status, nearly all parents who desire so have access to low-cost spaces for their preschool children 0-5 years (more on this below). Four types of licensed childcare services are available: early childhood centres (called CPE in French), family-based caregivers, and two kinds of for-profit private *garderies*: reduced-fee and full-fee.

Table 1 summarizes the basic characteristics of these four types of licensed care. It is mostly self-explaining, except for the net after-tax daily cost. The latter is what remains after subtracting government assistance from the before-tax daily cost. Government assistance includes the federal income tax deduction and, where applicable, the provincial refundable tax credit and adjustments for the Canada Child Benefit and the GST credit. The net after-tax daily cost is smaller for full-fee private *garderies* when family income is less than \$55,000 or between \$105,000 and \$150,000; if family income is between \$55,000 and \$105,000, it is smaller for the three reduced-fee providers.

Table 1. Basic characteristics of the four types of licensed childcare currently in existence in Ouebec

Quence					
Characteristic	CPE <sup>a</sup>	Family-	For-profit private garderies		
Characteristic		based	Reduced-fee	Full-fee	
Centre-based?	Yes	No	Yes	Yes	
For-profit?	No	Yes	Yes	Yes	
Reduced-fee?	Yes	Yes	Yes	No	
Potoro toy doily oost	Between \$7.75 and \$21.20,		and \$21.20,	Around \$35	
Before-tax daily cost	rising with family income			Around \$35	
Provincial RTC <sup>b</sup> ?	No	No	No	Between 75% and 26%,	
	110	110	NO	decreasing with rising income	
Federal tax deduction?	Yes	Yes	Yes	Yes	
Net after-tax daily cost <sup>c</sup>	Between \$5.85 and \$16.89,		and \$16.89,	Between \$4.38 and \$19.75,	
	rising with family income		nily income	rising with family income	
Distribution of children <sup>d</sup>	32%	31%	16%	21%	

<sup>&</sup>lt;sup>a</sup> CPE = Centre de la petite enfance (early childhood centre).

Source: Quebec Ministry of the Family.

#### FI Statement #1

The childcare program inaugurated in 1997 is expensive. Since then, the annual inflation-adjusted cost of provincial direct subsidies per available childcare space has doubled, climbing to \$9,823 in 2016-17. Adding the cost of indirect subsidies, which take the form of the refundable tax credit to users of full-fee private garderies, the total cost to the government of all subsidies was \$2.6 billion. An example of cost inflation is the 2008 extension of unionization to family-based childcare workers, which ended up costing the government more than \$1 billion per year.

In fiscal year 2016-17, the updated cost of the direct subsidies per childcare space to the three types of reduced-fee providers (CPE, family-based and reduced-fee private *garderies*) was \$9,986 dollars. This was 2.6 times larger than the 1997-98 cost of \$3,900 (current dollars). (I use current dollars to avoid the complication of having to select a price deflator.) The implied average growth rate of the cost per space was 5.1% per year from 1997 to 2016.

Chart 1 shows that it would be totally mistaken to conclude on that basis that the childcare budget was out of control over these 20 years.

Two periods can be clearly discerned. In the first 5 years (1997-98 to 2002-03), the childcare system was under initial construction. The cost per space shot up by nearly 15% per year. A main reason was that the percentage of spaces that were eligible for direct subsidies among reduced-fee providers increased progressively as children of various ages became successively covered by the program between September 1997 and September 2000. In addition, basic quality standards concerning personnel qualifications, child-staff ratios, class sizes, physical areas, etc. were set

<sup>&</sup>lt;sup>b</sup> RTC = Refundable tax credit.

<sup>&</sup>lt;sup>c</sup> For a couple with two identical work incomes and total family income between \$40,000 and \$180,000.

<sup>&</sup>lt;sup>d</sup> In December 2016, 291,545 licensed childcare spaces were available for 66% of the total population of 444,000 children 0-4 years.

and many new centres were established progressively. All this led to the doubling of the cost per space from \$3,900 to \$7,804.

in current dollars from 1997-98 to 2016-17 (log scale) \$<sub>12,000</sub> 10,000 \$9.986 +1.8%/year 8,000 \$7.804 6,000 +14.9%/year 4.000 \$3.900 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016

Chart 1

Quebec provincial government subsidy per childcare space in current dollars from 1997-98 to 2016-17 (log scale)

Sources: Quebec Ministry of the Family and Treasury Board Secretariat.

In sharp contrast, the cost of subsidies per space increased by a modest 1.8% per year (again, in current dollars) over the following 14 years (2002-03 to 2016-17). Government cost control relied mainly on the increase in the flat parental fee from \$5 in 1997-2003 to \$7 in 2004-2014, and on the indexed fee schedule rising with family income that was introduced in 2014-15. The rest resulted from prudent management by individual childcare centres.

Crucially, wage growth in Quebec's childcare sector was moderate. Statistics Canada's monthly Survey of Employment, Payrolls and Hours indicates that, from 2001 to 2016, the weekly wages of childcare workers increased in line with the provincial economy's average, at 2.3% per year.

The FI *Bulletin* reports that, following the 2008 extension of unionization to family-based childcare workers, there was a large once-over wage increase for this group. This "jump" in wages occurred in 2011. The cost of this wage settlement was seven times smaller than the wacky figure of \$1 billion fancied by the two FI authors. The exact figure published by the 2015-16 Annual Report of Quebec's Ministry of the Family was \$147 million.

The cost of direct subsidies to the three reduced-fee types of childcare in 2016-17 was \$2.3 billion. The cost of indirect subsidies – the refundable tax credit for users of full-fee private *garderies* – is unknown, but an estimate of about \$200 million would seem reasonable. The total cost of direct and indirect subsidies in 2016-2017 must therefore have been some \$2.5 billion.

Does a cost of \$2.5 billion make Quebec's childcare program "expensive", as stated by FI? This is certainly a large sum of money, worth about 0.6% of the province's gross domestic product (GDP). But 0.6% of GDP is just about equal to the current OECD average for the share of GDP that governments of member countries allocate to early childhood educational development on average (OECD 2016, Table C2.3). The percentage is in fact higher than 0.6% in countries such as Denmark, Finland, Germany, Iceland, Israel, New Zealand, Norway, Spain and Sweden. The OECD (2007) argued that "the case can be made that 1% of GDP is a minimum figure if adequate quality is to be maintained." Whatever the case may be, Quebec's 0.6% is definitely not outlandish.

Expensiveness of a program cannot be assessed in the abstract. It has to be determined relative to the benefits that are said to be generated. The right question to ask is: have the effects of Quebec's childcare program on mothers' incomes and child development been positive and significant enough to justify the cost? The FI authors answer these questions negatively. Let us examine their arguments.

#### FI Statement #2

The introduction of Quebec's childcare program in 1997 coincided with the full implementation of the 1996 reform of employment insurance (EI) across the country. Therefore, it is likely that the quantitative estimates that are available have to a significant extent confounded the positive impact of the new childcare program on mothers' labour force participation with the increase stemming simultaneously from the EI reform, which was particularly large in Atlantic Canada and Quebec.

This statement is directly contradicted by every result from the research literature. The quantitative estimates of the impact of Quebec's childcare program on mothers' labour force participation are based on research done by three teams of labour economists. One is from the University of Quebec at Montreal (UQAM), another is a trio from the University of Toronto, the Massachusetts Institute of Technology and the University of British Columbia, and a third is from Queen's University (Lefebvre and Merrigan 2008; Baker et al. 2008; Kottelenberg and Lehrer 2013; Haeck et al. 2015).

They all found that the Quebec reform had had a large causal impact on mothers' employment. Their unanimous verdict was reached by exploiting the detailed information contained in repeated individual interviews from two major longitudinal surveys conducted by Statistics Canada over the 15-year period 1994-2008. The behaviour of mothers from Quebec and other parts of the country were finely compared. The impact of the program on mothers' employment was identified through careful procedures meant to isolate its own effect from those of the many other factors that would operate simultaneously on women's employment at the time, such as the personal characteristics of respondents, the size of the community of residence, province-specific unemployment rates, and economy-wide influences such as the EI reform of 1996, the introduction of the National Child Benefit Supplement in 1998, and the highs and lows of the business cycle. Additionally, UQAM researchers found that the effect of the Quebec program on mothers' employment was <u>long-term</u>. If a mother used childcare while working before her child

began school, then she was more likely to be at work later, after the child had entered school (Lefebvre et al. 2009).

All the studies were peer-reviewed and published in reputable scientific journals. The unanimity of conclusions from these multiple independent sources constitutes compelling evidence that a significant share of the increase in Quebec mothers' labour force participation since 1997 can indeed be attributed to the low-fee universal childcare system introduced in that year. The straight conclusion, as the UQAM team put it, was that Quebec's childcare reform had had a "large, significant and persistent" impact on the labour supply of mothers and that, far from being surprising, this result was "comparable to those of similar comprehensive reforms in countries such as Norway, Spain and Germany."

In Fortin et al. (2013), University of Sherbrooke colleagues and I interpreted these findings as implying that in 2008 there were some 70,000, or 3.8 per cent, more Quebec mothers in employment than there would have been without the childcare reform. This could account for about 60 per cent of the increase in the employment rate of Quebec women 20-44 years from 1997 to 2008.

The FI suggestion that the studies overestimated the impact on mothers' labour force participation because of the confounding impact of the EI reform of 1996, which in addition could have affected Quebec and Atlantic Canada more than other regions, is therefore unfounded. The estimates from academic research were purified not only of the broad national effect of the EI reform, but also of its possibly-different effects on the various regions as captured by changes in province-specific unemployment rates and various community sizes.

### FI Statement #3

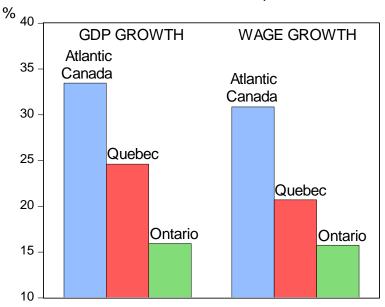
More generally, since 1997 the labour force participation rate of women of child-rearing age has increased at least as much in Atlantic Canada as in Quebec, in spite of there being no subsidized childcare program in the Eastern provinces. This suggests that similar economic forces have been at play in the two regions. There is no need to rely on the childcare program to explain any significant part of the increase in Quebec women's labour force participation.

This is an obvious fallacy. If employment increases as fast in Florida as in Texas following an oil boom in the latter state, can one pretend that oil has had nothing to do with job growth in Texas based on the fact that there is no oil in Florida? Of course not. It is entirely possible – we have seen this in the past – that a housing boom has lifted Florida's economy at the same time as the oil boom has propelled economic growth in Texas, and that these two occurrences have generated fast simultaneous employment growth in the two states. Similarly, women's labour force participation rate may have increased after 1997 in Quebec due to the childcare program, and increased as much in Atlantic Canada due to another factor that would have been specific to this region and unrelated to childcare.

What could this factor be? Essentially, more vigorous economic growth and faster wage growth in Atlantic Canada than in Quebec and Ontario. The left-hand panel of Chart 2 shows that, cumulatively from 1998 to 2014, constant-dollar GDP per working-age adult increased by 33% in Atlantic Canada, but only by 25% in Quebec and 16% in Ontario. It is well-known that the

fulcrum of economic growth in the Atlantic provinces was the oil boom in Newfoundland-and-Labrador. But it is also true that each of the three Maritime provinces, and not only Newfoundland-and-Labrador, did better than Quebec and, a fortiori, Ontario. The employment rate grew in St. John's, Halifax and Saint John, but it suffered setbacks in Toronto and Hamilton. In labour markets, according to the right-hand panel of Chart 2, the real purchasing power of women's wages also increased faster in every Atlantic province (+31% on average) than either Quebec (+21%) and Ontario (+16%).

Chart 2
Cumulative growth in real GDP per working-age adult and in real average weekly wages of women 25-54 years from 1998 to 2014 in Atlantic Canada, Quebec and Ontario



Source: Statistics Canada.

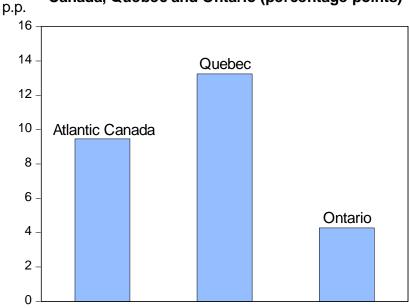
Economic and labour market performance was therefore much more dynamic in Atlantic Canada than in Central Canada through the 1998-2014 period. Employment and earnings opportunities created strong incentives for women to join and remain in the labour force.

It is instructive to compare the labour force behaviour of women of child-rearing age in Atlantic Canada and Ontario over 1998-2014, because in none of these two regions of Canada did women have access to affordable universal childcare. This is done in Chart 3, which shows by how much the labour force participation rates of mothers of young children increased from 1998 to 2014 in these two regions and Quebec. The 9 percentage point increase in Atlantic Canada compares to a 4 point increase in Ontario. This result is entirely consistent with the fact that labour markets were much more ebullient in Atlantic Canada than Ontario during this period.

The "anomaly" in Chart 3 is Quebec. According to Chart 2, its economic and labour market performance in 1998-2014 was less dynamic than that of Atlantic Canada, but more than that of Ontario. Absent the low-fee universal childcare system, it would have therefore been natural to

expect that the increase in the labour force participation rate of Quebec women would have been somewhere between the increases of Atlantic Canada and Ontario women, that is, somewhere between 4 points and 9 points. But there was instead a surge of 13 points in Ouebec.

Chart 3
Increase in the labour force participation rate
of women 20-44 years from 1998 to 2014 in Atlantic
Canada, Quebec and Ontario (percentage points)



Sources: Statistics Canada; Friendly et al. (2000, 2015).

Put together, the facts pictured in Charts 2 and 3 constitute fairly convincing evidence that Quebec's childcare program exerted an important influence on maternal labour force participation. The most direct and definitive proof obviously remains that based on scientific publications, to which I have referred above. The point here is that this proof is not contradicted at all by the alternative facts that the FI authors have put forward, based on the simultaneity of the EI reform impact and the similar evolution of women's labour force participation in Quebec and Atlantic Canada.

#### FI Statement #4

Even if studies have generally found a positive effect from the Quebec childcare program on maternal labour force participation, the best available evidence suggests that it did not do so on nearly a large enough scale to result in an increase in tax revenue that covers the significant fiscal costs associated with delivering the program. For example, one study (Baker et al. 2008) estimated that approximately 40% of the gross cost of the childcare subsidy is recovered by the increases in personal income and payroll taxes and the decrease in child benefits generated by the subsidy. So much for the claim that Quebec-style childcare programs can "pay for themselves".

The claim that the Quebec childcare program was "paying for itself" was made in the study that University of Sherbrooke colleagues and I did of its impact on mothers' employment, provincial GDP, and federal and provincial fiscal balances (Fortin et al. 2013). Since the FI authors do not seem to be aware of what we did, let me describe how we reached this conclusion.

Our first step was to interpret the estimates published in the research literature as implying that in 2008 there were some 70,000 more Quebec mothers in employment than there would have been without the childcare reform. This number included about 42,000 mothers with children 0-5 years and 28,000 mothers with children 6 years and older. In the latter case, we wanted our estimate to be consistent with the finding of Lefebvre et al. (2009) about the long-term effect on labour supply. They had discovered that the effect of the program on mothers' employment lasted beyond their children's preschool years.

Our second step was to figure out by how much this greater willingness of mothers to work – a big "shot in the arm" for the aggregate supply of labour – would increase provincial GDP in general economic equilibrium (as done in Blanchard 2000, for instance). Combining information on hours worked, work experience and educational attainment with standard macroeconomic techniques led us to calculate that Quebec's GDP would be some \$5.1 billion larger as a result of the new program being delivered. Crucially in this context, the economic impact included not only the direct value of the additional labour supplied by the mothers, but also the revenue generated by the additional business investment in buildings, machinery and equipment that was necessary to employ these new women productively.

Our third step was to calculate the impact of the new program on federal and provincial government income and expenditure. On the cost side, in 2008, the provincial government spent \$1.80 billion in direct subsidies. Based on childcare expenditure trends in other provinces, we estimated that, without the new program, the cost of subsidies to the government would have been about \$570 million in that year. This meant that the province had to pay \$1.23 billion in additional subsidies over what a non-universal targeted system – of the kind that existed in Quebec pre-1997 and was still in operation elsewhere in Canada in 2008 – would have required. It was this net addition of \$1.23 billion to the cost of childcare subsidies, not the entire gross program cost of \$1.80 billion, that generated and supported the rise in mothers' participation in the labour force and was the source of impact on government finances.

On the net revenue side, three consequences followed the introduction of the new childcare program. First, less fiscal expenditures: users of low-fee childcare were cut out of the provincial refundable tax credit, and the low childcare fee implied a smaller cost of the childcare expenses deduction for the federal government. Second, more tax revenue: 70,000 more mothers at work and the \$5.1 billion increase in GDP generated more personal and corporate income taxes, payroll taxes, consumption taxes (GST, PST, gasoline taxes, etc.), local taxes and government enterprise revenue. Third, less transfers: more mothers at work and higher family incomes meant fewer social assistance recipients and lower child benefits.

Table 2 summarizes our final estimated impact of the childcare program on government revenue and expenditure in 2008. The two key results are (1) that the total increase in revenue (\$2,151M) exceeded the total increase in expenditure (\$1,232M) by \$919M, which meant that the program was "more than paying for itself", and (2) that the increase in fiscal balance was greater for the

federal government (\$673M) than for the province (\$273M), given that the latter carried the entire cost of the program.

Table2. Estimated impact of Quebec's low-fee universal childcare program on federal and provincial governments' revenue and expenditure in 2008 (millions of dollars)

Impact on:	Level of government			
Impact on:	Federal	Provincial	Total	
Government revenue	+\$673M	+\$1,478M	+\$2,151M	
Government expenditure	\$0M	-\$1,232M	-\$1,232M	
Fiscal balance	+\$673M	+\$246M	+\$919M	

Notes: (1) The "provincial" level of government here includes the local level. (2) The increase in revenue excludes increases in contributions to social insurance plans (such as CPP/RRQ, EI, etc.), because the latter are deemed to be balanced by increases in expenditure of similar magnitude in the long run. But it includes payroll taxes unrelated to social insurance.

Source: Fortin et al. (2013, Tables 5 and 7).

The FI *Bulletin* correctly noted that these results seem to conflict with the finding by Baker et al. (2008) that only 40% of the gross cost of the childcare subsidy – their exact estimate was 38% – could be recovered by the increases in personal income and payroll taxes and the decrease in child benefits. Since the gross program cost in 2008 was \$1.8 billion, the Baker et al. 38% estimate implies that some \$685 million would have been recovered in that year, whereas our estimate of fiscal feedback in Table 2 is \$2,151 million, or three times as much.

Three omissions by Baker et al. explain that the \$685 million impact derived from their estimate of 38% for the fiscal feedback was so small compared to ours. First, they excluded from consideration any impact of the childcare program on government revenue other than the increases in personal income taxes and contributions to social insurance plans and the decrease in child benefits. Our own calculations for the magnitude for these elements was \$691 million, that is, very close to \$685 million estimate based on their 38%. Baker et al. neglected any effects on other types of revenues, transfers and fiscal expenditures. This is a major omission since, for example, a sizable fraction of family incomes winds up in large household expenditure items such as consumption and local taxes. Second, Baker et al. did not take into account, as we did, that the program's impact on mothers' employment was long-term and lasted beyond their children's preschool years. This important finding by Lefebvre et al. (2009) on persistence past the age of entry in school came out a year after the Baker et al. paper had been published (2008). Third, Baker et al. did not allow for the additional increase in provincial GDP that would follow from investment in productive capacity and would from there generate more tax revenue from corporate profits and capital income.

In other words, the FI authors are mistaken to view the Baker et al. estimate of 40% as a definitive evaluation of the comprehensive feedback from the childcare program onto government budgets. It was just a first step in this direction. What we did, essentially, was to complete their endeavour to its end.

#### FI Statement #5

From 1997 to 2016, the labour force participation rate of women above 55 years of age increased more quickly than that of women of typical child-bearing age. This suggests that a large share of the increase in labour force participation stemmed from causes such as the reform of EI and may be wrongly attributed by some to subsidized childcare.

The data in Table 3 show that the FI authors' argument here makes no sense at all. They realized that between 1997 and 2016 the labour force participation rate of the older group (55 and over) doubled, or increased by 100% (going from 14% to 28%), while that of the younger group increased by only 12% (going from 76% to 85%). This is what led them to conclude that the older group had done better than the younger group. But this is mathematically absurd. According to the criterion used to judge the race, for the younger women to win their participation rate would have had to more than double between 1997 and 2016, which means it would have had to exceed  $76\% \times 2 = 152\%$  in 2016 - an impossible outcome.

Table 3. Labour force participation rate of Quebec women aged 20 to 44 and 55 years and over in 1997 and 2016

Year	Age group		
	20-44	55+	
1997	76%	14%	
2016	85%	28%	

Source: Statistics Canada.

The contrary statement, that the younger group has in fact done much better, is easy to argue and makes sense. In 1997, 24 out of 100 members of the 20-44 group did not participate in the labour force. In 2016, only 15 remained out of it. Therefore, during this 19-year period, 9 of the 24 non-participating members, or 38%, decided to go for a job. A similar calculation shows that 86 out of 100 members of the 55+ group were not in the labour force in 1997, but that 14 of these 86, or 17%, had joined it by 2016. Clearly, the younger group was better able than the older group to put its non-participating members to work between the two years.

The second sentence of Statement #5 is therefore a non sequitur. There is no question that many causes are behind the trend increase in the labour force participation of younger as well as older women, possibly including EI reform. But there is nothing in the first sentence of the statement to "suggest" that low-fee childcare was not one of these causes. The FI authors' reference to the 55 and over age group is also particularly confusing because so many factors have impacted simultaneously on its connection with the labour market in recent decades, such as demographic change, rising educational attainment, norms and regulations concerning retirement, and the rising rates of separation and divorce. One cannot extract the truth about the older group by relying on simplistic alternative facts and correlations.

#### FI Statement #6

Quebec's childcare program reduced the labour supplied by fathers. While few fathers dropped out of the labour force, they did reduce the intensity of their work (Stalker and Ornstein 2013).

This is not what Stalker and Ornstein said. What they found was not at all that fathers "reduced the intensity of their work". They showed that, following the 1997 introduction of the new childcare program, relative to the rest of Canada the policy resulted in a shift in the proportion of Quebec families using the traditional household strategy (father works full-time, mother does not work, and she does more childcare) towards a strategy in which fathers remained largely employed full-time, mothers worked, and childcare was more equally shared. In private exchange, Professor Stalker stated to me: "It is inaccurate to suggest that there is a general secular trend toward less investment in paid labour among fathers as a result of the policy. I do not see how the Fraser Institute's citation of our work meaningfully represents the central conclusions of our paper."

Confirmation recently came from the detailed longitudinal study of Quebec's childcare program conducted by Haeck et al. (2015), to which I have referred above. They reported that their estimated effects on fathers' annual weeks worked (as well as on their labour force participation) were "rarely significant and relatively small."

#### FI Statement #7

The labour force participation rate of women of child-rearing age was lower in Quebec in 1997 than it is in any province in Canada today. It would therefore be a mistake to assume that the introduction of a childcare program based on the Quebec model in any province today would have as big an impact on women's employment rates as Quebec's program did in that province 20 years ago.

This is a non sequitur statement. To see what is at stake, Table 4 compares the increases in the labour force participation rates of women 20-44 years in Quebec and in other provinces in the pre- and post-reform periods 1976-1997 and 1997-2016.

Table 4. Labour force participation rate of women aged 20 to 44 years in 1976, 1997 and 2016 in Quebec and in all other Canadian provinces

Region	1976	1997	2016
Quebec	54%	76%	85%
All other provinces	60%	78%	80%

Source: Statistics Canada.

In the 20-year period 1976-1997, the labour force participation rate of young women increased rapidly in every region of Canada. The differential between women in Quebec and elsewhere shrank slowly. It declined from 6 points in 1976 (54% vs. 60%) to 2 points in 1997 (76% vs. 78%). In the last 20 years, women's participation rates increased by 9 points in Quebec (to 85%), but by only 2 points in provinces other than Quebec (to 80%). In 2016, the regional detail was 82% in the Atlantic provinces, 79% in Ontario, and 80% in the Prairie provinces and British Columbia.

What would Quebec women's participation rate have been in 2016 without the childcare program? If the estimate that the program brought 70,000 more mothers in employment in 2008 is adapted to produce an estimate of their labour force participation rate in 2016 (taking the unemployment rate and population growth into account), the straightforward answer to this

question is: 79%, or 6 percentage points lower than the actual 85%. So, the second sentence of the above FI Statement amounts to denying that, if a childcare program based on the Quebec model had also existed in other provinces in 2016, the labour force participation rate of young women 20-44 years there could have been 86% instead of 80% on average. This is a very dubious position to take: if Quebec women were able to achieve 85%, it is hard to figure what could have stopped women in other parts of Canada to achieve 86% if they had benefited from the same degree of affordability of childcare as the former.

#### FI Statement #8

There is substantial evidence that Quebec's childcare program has not improved the cognitive development of children and that it has brought about significant negative outcomes in terms of their non-cognitive development.

Enhancing child development is one of the two basic objectives of Quebec's *Educational Childcare Act* of 1997. The above statement by the FI authors suggests that the childcare program has not met this core commitment. Their assertion is incomplete and misleading because they ignore some major recent advances in research on the development of Quebec children.

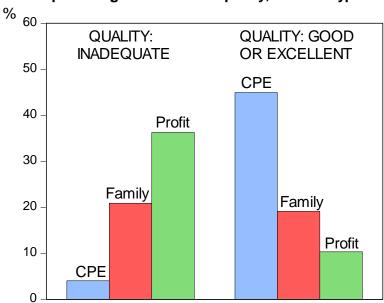
In the research literature, there are two major sources of information on the effects of Quebec's childcare program on child development: (1) studies by economists on child development outcomes based on the biennial National Longitudinal Survey of Children and Youth (NLSCY) that Statistics Canada did from 1994 to 2008, and (2) studies in psychology, psychiatry and medicine on the performance of the early childhood centres (CPE) network based on longitudinal and cross-section surveys. The FI authors focus their comments on the negative effects uncovered by some of the economic studies and ignore the second set of studies entirely.

Economists Baker et al. (2008, 2015), Brodeur and Connolly (2013), Kottelenberg and Lehrer (2013, 2016, 2017) and Haeck et al. (2015) studied the effects of the childcare system <u>as a whole</u> on outcomes such as vocabulary, health, motor and social development, inattention, anxiety and aggression, and parental well-being. Results were widely dispersed, sometimes positive and often negative, depending on family type, family income, child gender and estimation method. Kottelenberg and Lehrer and Haeck et al., in particular, emphasized that this heterogeneity of outcomes was to be expected, given that <u>average</u> effects on child development result from a sample of children that are widely distributed across many dimensions, for example the quality of the care they receive and the type and quality of care that can be reasonably considered as their best alternative.

The FI authors fail to report on the detailed investigation of child outcomes that was done recently with the NLSCY survey by UQAM researchers (Lebihan et al. 2015). The latter found that the childcare program had some negative non-cognitive effects on children 0-4 years up to 2006, but that these negative effects became smaller over time and eventually turned insignificant by 2008. As children got older (5-6 and 7-9 years), most negative effects tended to disappear. The researchers speculated that the negative short-term effects until 2006 may have reflected not only the impact of childcare per se, but also the rapid deployment of a large-scale childcare network, which was completed by 2006. Then, as the network stabilized, the effects may have been different.

Also ignored entirely by the FI *Bulletin* and by the economic studies themselves is the research literature on the performance of the early childhood centres (CPEs) network in scientific journals specialized in psychology, psychiatry and medicine. As Table 1 has indicated above, CPEs, family-based care and for-profit (reduced-fee or full-fee) private *garderies* each account for about a third of childcare spaces. Crucially, as indeed suspected by Kottelenberg and Lehrer and by Haeck et al., a consistent and persistent result of the surveys conducted by the Institut de la statistique du Québec is that quality is highly variable among care providers. As Chart 4 shows, it is more often "good or excellent" in CPEs, but more often "inadequate" in family-based care and for-profit *garderies*.

Chart 4
Per cent of Quebec children 18-66 months attending care of either inadequate or good/excellent quality, in three types of care



Note: "CPE" = early childhood centres (in 2014); "Family" = licensed family childcare (in 2003); "Profit" = for-profit full-fee garderies (in 2014). Source: Institut de la statistique du Québec (2004 and 2015).

The measurement of the quality of childcare (e.g., Harms et al. 2004, Japel 2016) is based on structure and process. Structure involves health and safety, physical environment, child-staff ratios and group sizes, teacher qualifications and experience, and competence of management. Process concerns activities, educational program, interactions with children and interactions with parents. A unanimous finding of the published research in psychology, psychiatry and medical journals is that Quebec's CPEs deliver positive results for child development (for example, Geoffroy et al. 2010; Herba et al. 2013; I. Laurin et al. 2015; J. Laurin et al. 2015). First, whatever the income levels of their families, the 5-year-olds that have attended CPEs are less likely to be cognitively or behaviourally vulnerable than those who have not been in licensed care. Second, the reduction in the risk of vulnerability is large for children from low-income families, and by no means negligible (though naturally more modest) for those from middle-to

high-income families. Third, early and intensive CPE attendance eliminates the cognitive differences between children of low and middle-to-high socioeconomic status at least until grade 6. Fourth, early CPE attendance significantly reduces the risks of internalizing problems for children of mothers with elevated maternal depressive symptoms – a frequent occurrence in low-income families.

Two major implications follow. First, the distribution of Quebec children among the four types of licensed childcare is skewed toward the lower-quality providers. The high-performance CPE network has been demonstrated to deliver positive cognitive, health and behavioural results on average, and to be effective in reducing the vulnerability of children of all income classes, but it absorbs only 1/3 of children. The other 2/3 of children in licensed childcare receive services from family-based caregivers and for-profit *garderies* that are of minimal or inadequate quality on average. This explains that, so far, the results obtained by economists that have studied the effects of the childcare program <u>as a whole</u> based on the longitudinal data of the NLSCY survey imply that child development has not improved on average since 1997.

Second, what these results obtained by economists entail is not a grand conclusion that a low-fee universal system is bad in general for child development, but a reminder that it can be bad if the average quality of services is substandard – a common-sense observation. There is no doubt that the quality of services in Quebec's particular system needs to be better managed. The challenge is to extend the good quality standards achieved by the CPE network to the rest of the childcare system. This would be a shrewd use of the fiscal surplus generated by the program.

# FI Statement #9

Access to a licensed childcare space in the Quebec supposedly-universal system is not in fact universal because the problem of waiting lists for spaces in childcare facilities remains.

This statement is incorrect. Estimates based on official statistics for the fiscal year 2014-15 are reported in Table 5. Among the four types of licensed childcare, there was only 2% excess capacity or less in CPEs and in reduced-fee private *garderies*, but 16% in family-based care and a whopping 43% in full-fee private *garderies*. There was more than enough excess capacity for every parent to get a space somewhere in the system. These estimates are easy to derive from widely available official reports, but the two FI authors chose to rely instead on an obscure CBC report of 2006 on waiting lists in the early 2000 period. Things have evolved since.

The fact that the excess capacity in CPEs and reduced-fee private garderies is a small frictional 2% or less is likely related to the good-excellent average quality of this type of childcare, pictured in Chart 4 above. Even if the net after-tax cost of a space in family childcare or in full-fee private *garderies* is about the same as in CPEs, many parents prefer the CPE option when they are aware of the higher quality of services there. They apply for a space in a CPE, and use family or private childcare as a temporary option until they get a favourable answer to their CPE request.

Table 5. Numbers of childcare spaces that were available and actually occupied, and resulting excess capacity in the four types of licensed childcare services in Quebec in fiscal 2014-15

Type of licensed shildsers	(1)	(2)	(3) = [(1)-(2)]/(2)
Type of licensed childcare	Available spaces	Occupied spaces	Excess capacity
Early Childhood Centres (CPE)	88 302	86 536	2,0%
Family-based childcare	91 664	78 831	16,3%
Reduced-fee private garderies	44 760	44 357	0,9%
Full-fee private garderies	49 242	34 469	42,9%
All licensed childcare	273 968	244 193	12,2%

Note: Column (1) is from official Ministry of the Family (MFA) count statistics (average of March 2014 and March 2015); column (2) is from official MFA space occupation statistics, except the number for full-fee private *garderies*, which is estimated from Quebec Ministry of the Family (2014, page 30).

Source: Quebec Ministry of the Family.

So, the waiting time for access to licensed childcare in general is in fact zero, but there are waiting lists for access to the high-quality childcare in CPEs. This is entirely consistent with the discussion about quality in the above section on child development. There is just one solution: continue to expand the CPE model and impose competitive quality standards to full-fee *garderies*.

#### FI Statement #10

Across Canada, lower-income families are less likely to get a childcare space than upper-income families. However, this problem has not been solved in Quebec under its universal program.

This FI statement is correct, but misleading. According to the ratio of the <u>median</u> daily fee to women's <u>median</u> income in 22 large Canadian cities, licensed childcare is currently four times more affordable in Quebec than elsewhere in Canada (Macdonald and Friendly 2014, updated). This median-based ratio obviously hides the fact that access to childcare services is unequal across income groups, in Quebec as elsewhere. Table 6 underlines this reality by comparing the childcare profiles of high- and low-income Quebec families.

Table 6. Distribution of 100 Quebec children 0-4 years by parents' employment status, childcare profile, and family income quartile

Daranta' amplexement status and shildcare profile	Family income quartile		
Parents' employment status and childcare profile	High-income (Q4)	Low-income (Q1)	
Parents don't work	8	36	
Work, but don't use childcare	8	13	
Work and use childcare	7	10	
of minimal to inadequate quality	/	10	
Work and use childcare	77	41	
of fair to excellent quality	11	41	
All families	100	100	

Sources: Haeck et al. (2015); Japel (2016).

Children from low-income families are less present than other children in good-quality licensed childcare. The table points to the three reasons for this. First, low-income parents are more often without jobs. Second, when they hold jobs, they use childcare less often. Third, when they use childcare, they wind up in lower-quality facilities more often (20%, or 10 out of 51 for the Q1 group, vs. 8%, or 7 out of 84 for the high-income group). The low daily fee (\$7.75 in 2017) may still be too expensive for them, or there may not be any good-quality childcare provider in their neighbourhood, or the mix of tax-transfer rules makes it financially more attractive for them to use lower-quality services.

As Table 6 makes clear, a foremost difficulty is that disadvantaged children are hard to reach in the first place because half of them escape the childcare network (49% according to the table). The development of children from low-income families is a worldwide problem, not a Quebec or a Canadian problem. Better access of disadvantaged children to good-quality care should obviously be a top priority for the future development of every system, including Quebec's.

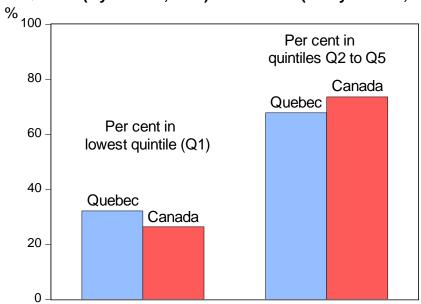
But the FI authors are definitely in error when they suggest that a universal program confers no advantage in caring for the special needs of vulnerable children.

There are two decisive arguments to support low-fee universality. The first, summarized by Chart 5, is that two-thirds of vulnerable children come from middle- to high-income families. Furthermore, if not corrected early, before kindergarten, vulnerability is persistent. If a child winds up vulnerable in kindergarten, it is very likely to remain so in later grades (see Desrosiers et al. 2012). Families of every socioeconomic status must therefore participate in the system if the latter is to "catch" all vulnerable children. Only a universal system can aspire to achieve this.

The second argument in support of a low-fee universal system is the one that was made in the above discussion of FI Statement #4. Such a system, as the one implemented in Quebec, generates a fiscal surplus because it attracts so many more mothers into the labour force that the additional taxes of all kinds collected by governments come to exceed the additional subsidies and tax credits the province has to pay compared to a non-universal targeted system. Not only does the universal system not add to the burden of taxpayers, but it more than pays for itself.

A low-fee universal program therefore has the <u>potential</u> for providing everything that is required to catch all vulnerable children and to finance better quality of childcare services and the special needs of disadvantaged children at no net cost. It provides the benefits that are necessary to cover the costs. Compared to the non-universal targeted system, it is <u>more effective</u> because it does not leave out the majority of vulnerable children, and it is <u>less costly</u> because it generates fiscal revenue that can more than cover the additional system costs.

Chart 5
Per cent of all vulnerable children in the lowest quintile (Q1) and in the four higher quintiles (Q2 to Q5) of socioeconomic status, Quebec (5 year olds, 2004) and Canada (0-11 year olds, 2000)



Sources: Willms (2002); Desrosiers et al. (2012); calculations PF.

#### FI Statement #11

Quebec's childcare program has been a boon to richer households.

This sort of anti-rich bias on the part of FI is misplaced. It is good practice to ensure that middle-to high-income households sometimes receive government services at low cost in exchange for the mountains of taxes they will pay throughout their adult lives. Low-fee universal childcare is one of the very few public services that college- and university-educated middle- and high-income families can hope to get in the first 15 years of their adult lives in return for the taxes they pay. They do not get healthcare because they are young and healthy. They do not get employment insurance or social assistance because they hold college and university degrees. They do not use free public schools yet because their first child is not going to reach school age before they are 33. Viewed in this light, the access of richer young households to low-fee childcare is not a "boon" to them, but a well-earned return for their contribution to maintaining and developing good public services.

Playing Robin Hood – soaking the rich to give to the poor – is obviously popular among many groups, but yielding too much to this venerable British tradition risks creating generations of middle- to high-income taxpayers whose main attitude will be to hate government and whose main interest will be to cut taxes and services to the needier. This attitude is widespread in North America. Introducing a pinch of Scandinavian "you get what you pay for" into markets for public services is not a bad idea. Access of richer households to low-fee childcare, which may or may not be combined with a modest increase in fee with income, is a natural implementation of this

principle. In fact, a universal childcare system can be viewed as the very first component of our free public school system, which is universally accessible to the "not-so-poor". This approach to early childhood education and care further encourages peer effects and social mixity across income classes early in life. Furthermore, the presence of middle- and high-income parents in a low-fee childcare system helps establish and maintain good-quality childcare and prevents the stigma that is too often associated with "programs for the poor".

As experience with Quebec's low-fee universal childcare program has developed, it has become clear that access of college- and university-educated young families to the program has been key to whatever success it has achieved so far. For one, two-thirds of all vulnerable children in society are their children. For two, their participation in the program is a main reason that the response of the labour force participation of mothers has been so large, significant and persistent and hence that the program more than pays for itself (Haeck et al. 2015; Fortin et al. 2013).

#### FI Statement #12

Evidence from studies in the United States has shown that cognitive gains from centre-based childcare participation tend to fade out quickly over time, and are gone nearly entirely by the third grade. It is therefore unrealistic to expect long-term human capital returns from investment in childcare based on the Quebec model.

Bizarrely, the only U.S. reference on which the FI authors rely is a 2002 NICHD study that contains no discussion at all of the fade-out phenomenon. Let me compensate by referring to the comprehensive summary of the long-term effects of centre-based childcare participation in the United States published recently by Elango et al. (2016). These authors show that the two small-scale demonstration projects with long-term follow-up of cognitive abilities – the Perry Preschool and Carolina Abecedarian Projects – do have statistically significant positive cognitive outcomes that persist into adulthood. However, they confirm that studies of the large-scale project Head Start have indeed found that the early positive effects on IQ have faded out by high school years. This evidence must no doubt be taken at face value, but it could be specific to the U.S. context, where the quality of public schools attended by so many disadvantaged children is mediocre (see Currie and Thomas 1995).

What about the evidence on Quebec's young (20-year-old) childcare program? So far, what has been learned from initial studies of the persistence of cognitive gains from participation in this program differs from the U.S. evidence. Based on the Quebec Longitudinal Survey of Child Development (QLSCD), Geoffroy et al. (2010) found that the 12-year-olds (grade 6) from low socioeconomic status families who had been in centre-based care (mostly CPEs in the sample) had cognitive outcomes that were (1) significantly better than if they had not attended CPEs, (2) even better if attendance had been intensive (around 40 hours per week), and (3) similar to those from adequate socioeconomic status families if the CPEs had been attended early (from 18 months old). These results were confirmed by J. Laurin et al. (2015), who showed with the QLSCD survey that early participation in centre-based childcare can eliminate the social inequalities in academic performance at least up to early adolescence.

There is no question that the FI authors lacked the evidence basis to conclude that "it is unrealistic to expect long-term human capital returns from investment in childcare based on the

Quebec model." Of course, this negative assessment of FI by no means implies that there is no progress to be made to improve the average quality of the program and its responsiveness to the special needs of disadvantaged children.

# Conclusion

This *Research Bulletin* is an affront to the standards promised by the Fraser Institute's website, according to which "careful, accurate and rigorous measurement" is the foundation for its work, and the source of its data is "always provided." The twelve arguments made in support of its view that Quebec's childcare program is "flawed" do not hold water. Measurement is often careless, inaccurate, negligent, absent or mathematically absurd. Many sources are anachronistic, contrarian or unrelated to the argument, irrelevant, misinterpreted or missing. Simple correlations are fallaciously taken as identifiers of cause and effect.

All in all, a policy analysis disaster.

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