Options for the Creation of an Affordable Licensed Child Care Program in Manitoba

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EDITOR'S NOTE

This paper was developed alongside a previously released paper by CCPA Manitoba entitled "Progressive Pricing: Making Childcare More Affordable in Manitoba" by Dr. Susan Prentice (https://www.policyalternatives.ca/publications/ reports/progressive-pricing). As Dr. Prentice notes in her paper: "A system of publicly-funded and universally available childcare should be built for the same reasons that all affluent countries have created public education. Until this happens, however, childcare is firmly embedded in a market model of user fees". This paper, "Options for the Creation of an Affordable Licensed Child Care Program in Manitoba" provides important data and analysis to create equity in child care fees, which is one pragmatic first step towards the creation of a quality, universal, public child care program in Manitoba and Canada.



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Executive Summary

SINCE ITS INCEPTION in 1974, the Province's Early Learning and Child Care (ELCC) program has grown in size and coverage of the eligible population. Between 1989 and 2019, it grew from 913 facilities and 16,639 spaces to 1,172 facilities and 38,465 spaces in 2019. In 1989, there were licensed spaces for 9.2 per cent of all children under 12 years. By 2019, 19.0 per cent of children under 12 could be served. However, in spite of the program having maximum per diem rates for licensed care that are among the lowest in the country, 24 per cent of families using child care in Manitoba are paying more than 10 per cent of their after-tax/disposable family income on licensed care.

The reasons for one quarter of families facing unaffordable licensed care are several. First, the current formula used by the program to calculate parent fees does not cap parent fees at a maximum fixed per cent of their family income. Thus, lower income families can and do pay more than an affordable per cent of their disposable income on licensed care. Second, the family income thresholds used in the current formula for determining eligibility for full and partial subsidy have been increased only twice since 1999 and have fallen in real terms leaving more lower income families out of reach of subsidies. In 2007/08, 35 per cent of children in licensed care were receiving subsidized care. By 2019/20, that had fallen to 17 per cent.

By contrast, higher income families have enjoyed increasingly less expensive licensed care because the maximum daily fees have been increased only three times since 1991 by much less than the cost of living. Expressed in 2020 dollars, the maximum daily fee has fallen from \$31.56 to \$20.80 for full

day preschool care. As a result, the licensed child care system in Manitoba has become more expensive for lower income families and less expensive for higher income families — the exact opposite of what good public policy would dictate.

To address this growing divide, this paper proposes two key steps. First, increase the maximum daily fee from \$20.80 to \$27.20 per day for preschool full day care and from \$8.80 to \$11.56 for school age care. Second, convert the current parent fee formula from one that caps parent fees at the maximum daily fee (MDF) without regard to how much that fee represents of their family income to one that gradually increases fees from 0 per cent of the MDF at the MBM poverty line to 100 per cent when family income achieves the affordability threshold. Three affordability thresholds are proposed — 10 per cent, 7.5 per cent and 5 per cent of net family income.

These two measures result in licensed care fees that are lower for families with incomes below three or four times the MBM threshold and higher for the families with incomes above those thresholds. Overall, the average cost of licensed care drops from \$7,530 per year to \$5,638 for the 10 per cent affordability threshold, to \$4,627 for the 7.5 per cent affordability threshold and to \$3,454 for the 5 per cent affordability threshold.

The move to this affordable licensed care regime results in a loss of parent fees to the system, from \$44 million per year for the 10 per cent affordable fee option to \$94 million for the 5 per cent option. This loss will have to be met by higher provincial operating grants.

However, the resulting lower licensed care fees will result in several types of offsetting gains in tax revenue. Lower parent fees will result in lower Child Care Expense Deductions (CCEDs) leading to higher net and taxable incomes resulting in higher provincial and federal taxes and lower Canada Child Benefits. The estimated value of these combined federal and provincial revenues is \$12 million for the 10 per cent affordable fee option to \$4.8 million for the 5 per cent option. The second key source is the increase in the number of primary care giving parents entering the labour force which generates additional taxes as well as increases to the provincial GDP. We estimate that the lower fees will result in between 4,935 and 6,075 parents entering the labour force which will result in a \$426 to \$524 million increase in the provincial GDP which will generate between \$74 and \$91 million in additional provincial tax revenues. These additional tax revenues plus the parent fees paid by the new workers will be more than sufficient to offset the cost of supplying additional child care spaces and operating grants for the 10 per cent and 7.5 per cent affordable fee options.

In sum, the proposed changes to the current licensed care fee structure would result in lower fees for lower income families and expand the labour force to the extent that the additional provincial tax revenues and parent fees would pay for the higher operating grants required by the new affordable fee structure.

Introduction

THE LICENSED CHILD care program in Manitoba was created in 1974 and, at the time, it was regarded as one of the best programs in Canada. It featured the creation and support of non-profit parent-led boards of directors to oversee the operation of child care centres, a set of operating standards that focused on ensuring quality care, an educational curriculum for training staff to run the centres, and the setting of maximum daily fees along with a parent fee schedule that made child care affordable for lower income families.

Since its inception, the program has grown in size and coverage of the eligible population. Between 1989 and 2019, it grew from 913 facilities and 16,639 spaces to 1,172 facilities and 38,465 spaces in 2019. In 1989, there were licensed spaces for 9.2 per cent of all children under 12 years. By 2019, 19.0 per cent of children under 12 could be served.¹ However, with respect to ensuring the affordability of parent fees, the current formula for assessing parent fees is not designed to cap parent fees at a fixed per cent of family income with the result that parent fees can and do exceed a '10 per cent of family income' threshold of affordability. Furthermore, successive governments have only occasionally updated the income thresholds for accessing subsidized care resulting in fewer families qualifying for child care subsidy.² Over the same time period, the maximum daily fees have been infrequently increased and only by a small amount, such that for higher income families, licensed child care has become substantially less expensive relative to their income. However, the failure to regularly increase the family income eligibility levels for the subsidy has led to the licensed care system in Manitoba becoming

more expensive for lower income families. The vast majority of parents using licensed care in Manitoba now pay full fees. Today, only 17.0 per cent of families using regulated child care receive any degree of child care subsidy.

To address this growing affordability problem, this paper presents a proposal for replacing the current formula for assessing parent fees with an alternative formula that sets the minimum income threshold for the payment of parent fees as a function of the Market Basket Measure (MBM) poverty line and the maximum threshold at that level of family income that ensures no family pays more than a fixed per cent of its net family income on licensed care. As there is no one definition of what constitutes 'affordable' child care and what should be the minimum family income threshold at which parent fees begin, this paper presents a set of options and shows the impact on the cost of licensed child care for families and the total amount of parent fees each option generates. It also assesses the impact of lower parent fees on the employment rates of parents with young children and the government revenues that that employment generates.

As there are no adequate surveys of licensed child care use in Manitoba, the analyses reported on in this paper are based upon Statistics Canada data sets of the income of those Manitoba families with any children of child care age who claimed child care costs. For the most recent income survey used in these analyses, further adjustments have been made to bring the counts of children by age group and receiving a child care subsidy into alignment with the actual counts as indicated in the 2019/20 Annual Report of the Early Learning and Child Care (ELCC) program. Thus, while every effort has been made to make the data sets representative of the actual population of families using licensed care, they remain suggestive of the current situation facing families using licensed care in Manitoba. As well, given that detailed information is not available on the level of use of licensed care, in the modeling that follows the assumption is made that families are using licensed care on a full-year, full-time basis for all of their children of child care age. This assumption has been applied consistently across the several approaches to setting licensed care fees to ensure a fair comparison of the impacts of the alternative approaches to setting fees.

The Changing Affordability of Licensed Child Care in Manitoba

WHEN THE CHILD Care Regulations were amended in 1986 they stipulated that no family whose net family income was below \$11,925 for a husband and wife or lone parent and first dependent child family plus \$2,210 for each additional child under 18 would pay anything for licensed care. As of today, those thresholds for a maximum subsidy are \$16,420 and \$3,042, respectively, reflecting a 38 per cent increase. Over the same time period, the maximum daily fees for a preschooler in care for 4 to 10 hours per day rose from \$11.65 to \$20.80, representing a 78 per cent increase. By comparison, between 1986 and 2019, the cost of living in Manitoba, as measured by the Consumer Price Index, rose by 113 per cent and median real (adjusted for inflation) family incomes by 40 per cent for two parent families and by 32 per cent for lone parent families between 1986 and 2018.3 Thus, the income parameters of the subsidy program and the maximum daily fees have lagged well behind the growth in both the cost of living and the real, inflation adjusted incomes of the families accessing the program. As we show below, the lag in the increases of both the subsidy and maximum daily fee amounts have resulted in fewer families qualifying for a maximum or partial subsidy and in lower income families paying a greater share of their total income for licensed care and higher income families paying a relatively smaller share of their total income.

Families Qualifying for Subsidized Child Care

Table 1 shows that between 2007/08 and 2019/20, the average number of children receiving a subsidy has steadily dropped from 9,600 to 6,542 while the number of licensed child care spaces has increased from 27,189 to 38,465. Thus, the per cent of children receiving a subsidy has declined from 35.3 to 17.0 per cent of spaces. Going further back, close to half of all children received a subsidy in the early 1990s.⁴ Thus, the access of low income parents to subsidized child care has worsened steadily for decades.

Table 2 shows the decline in the per cent of families eligible for maximum and partial subsidy between 2002 and 2017 for families with any children under 10 years of age who used paid child care.⁵ Families qualifying for a maximum subsidy fell from 8.4 to 2.7 per cent of all such families between

TABLE 1 Number of Licensed Child Care Spaces and Children Receiving Subsidized Care

Year	All Spaces	Children Receiving a Subsidy ⁱ	Per cent Receiving a Subsidy ⁱ
2007/08	27,189	9,600	35.3%
2013/14	32,555	8,614	26.5%
2019/20	38,465	6,542	17.0%

Source Government of Manitoba, Department of Families' Annual Reports. Calculations by the author. i During an average 4 week period.

TABLE 2 Net Family Incomeⁱ and Subsidy Thresholds and Per cent of Families with Incomes below the Maximum and Partial Subsidy Thresholds — Manitoba Families with Children Under 10ⁱⁱ with Child Care Costs

	2002	2007	2012	2017
Total Families	N=40,502	N=45,245	N=37,629	N=39,507
Family Income and Subsidy Thresholds in Constant 2017 dollars:				
• Net Family Income at the 25th Percentile	\$39,124	\$39,456	\$44,200	\$51,590
• Maximum Subsidy Income Threshold – SP+1 child	\$21,428	\$19,322	\$17,812	\$16,420
Per Cent with Net Family Income:				
• Below Maximum Subsidy	8.4%	5.4%	7.7%	2.7%
• Below Partial Subsidy	44.8%	33.1%	28.7%	19.0%

Source Statistics Canada, Public Use Microdata Files of Annual Income Surveys. Calculations by the author.

i This is the ELCC's definition of 'net family income' as described in Appendix 1.

ii The public use micro data sets group the ages of children as 0 to 5, 6 to 9, 10 to 14. Rather than include 13 and 14 year olds in the analysis who do not qualify for licensed care, we limited the data set to children 0 to 9 years of age.

2002 and 2017 while those qualifying for a partial subsidy fell from 44.8 to 19.0 per cent of all such families over the same time period. The two reasons for this decline were the decline in the real (inflation adjusted) value of the subsidy thresholds and the increase in the real after-tax-and-transfer incomes of lower income families. The real incomes of families at the 25th income percentile rose by 32 per cent between 2002 and 2017 while the maximum subsidy income threshold fell by 23 per cent during the same time period.⁶

The Changing Cost and Affordability of Licensed Care by Family Income Level

Even though the real incomes of lower income families with child care costs did rise between 2002 and 2017, those with incomes less than twice the MBM poverty threshold did not experience a decline in the share of family income devoted to meeting the cost of licensed care in Manitoba. As *Table 3.1* reveals, the average licensed care fee, as a per cent of the family's after tax/dispos-

TABLE 3.1 The Average Per cent of Disposable Family Incomeⁱ Which Would be Spent on Licensed Child Care by MBM Family Income Group — Families with Children Under 10 with Child Care Expenses — 2002 to 2017

MBM Family Income Group ⁱⁱ	2002	2007	2012	2017
Below 2.0 × MBM Threshold	10.5%	11.0%	10.6 %	10.4%
2.0+ × MBM Threshold	11.2%	9.4%	9.1%	7.7%
Total	10.9%	10.4%	9.9%	9.0%

Source Statistics Canada, Public Use Microdata Files of Annual Income Surveys. Calculations by the author.

i Disposable family income is total income less taxes.

ii See Appendix 1 for an explanation of the MBM.

TABLE 3.2 Per cent of Families with Child Care Expenses Who Would Pay More than 10 per cent of Disposable Family Income on Licensed Care — 2002 to 2017

MBM Family Income Group	2002	2007	2012	2017
Below 2.0 × MBM Threshold	58.9%	63.0%	63.9%	63.6%
2.0+ × MBM Threshold	57.4%	44.3%	36.6%	13.1%
Total	58.4%	55.4%	51.5%	36.2%

Source Statistics Canada, Public Use Microdata Files of Annual Income Surveys. Calculations by the author.

able income, remained fairly constant for those families whose income was below twice the MBM poverty line; while, for families with incomes more than twice the MBM poverty line, the cost of care fell from 11.2 per cent to 7.7 per cent which drove down the overall average cost of licensed child care from 10.9 to 9.0 per cent of family income. These results assume that all of the families with any child care expenses used licensed care.

Table 3.2 shows the impact on the affordability of licensed child care, measured as the per cent of families using any type of child care who would pay more than 10 per cent of their disposable family income on licensed care fees. Again, this modeling exercise indicates that if any family using any form of child care accessed licensed care over this time period, it would pay the indicated per cent of its disposable family income on licensed care, given the cost of licensed care.

This table shows that the per cent of lower income families facing unaffordable licensed care rose from 59 per cent in 2002 to 64 per cent by 2017. By contrast, unaffordable child care fell dramatically for higher income families from 57 to 13 per cent over the most recent 15 years. The high and worsening lack of affordable licensed care in Manitoba is due to the use of a parent fee formula that does not explicitly take into account the per cent of family income spent on child care and the failure of successive governments to raise the income thresholds for the maximum and partial subsidies in keeping with the increases in the real family incomes of parents with young children. Conversely, stable parent fees have resulted in higher income families paying a smaller share of their family income on licensed care today than they did over the last 20 to 30 years. The following proposal for the creation of an affordable licensed care program in Manitoba flows from these two observations.

The Current System of Licensed Care in Manitoba and the Families That Use It

PRIOR TO SETTING out the proposal for an affordable licensed care program, we first describe the current system as it pertains to the size and composition of the system and the method of financing it. We also profile the families that use it. That profile is drawn from the Statistics Canada data set of families with children under 13 as described in Appendix 2.

The Size, Composition and Funding of the Licensed Child Care System

According to the latest (2019/20) annual report of the Department of Families, Manitoba has a total of 1,172 facilities with 38,465 spaces. The majority of the facilities (62 per cent) are centres with most of the spaces (91 per cent) found in centres. Licensed homes account for only 9 per cent of all spaces. A key feature of Manitoba's licensed care system is that the vast majority of the centres and spaces (95 per cent) are non-profit. There are only 35 for profit centres providing 1,825 spaces. While commercial centres do not

Age Group of Child	Centres	Homes
Infants (O to 1 years)	\$11,375	\$2,693
Pre-school (2 to 5 years)	\$4,180	\$2,068
School age (6 to 12 years)	\$1,664	\$880
Nursery School (6 to 10 sessions/week)	\$528	_

TABLE 4 Per Space Operating Grants by Type of Facility and Age Group of Child – 2019/20

receive government operating grants, 92 per cent of the non-profit centre spaces and 74 per cent home spaces are covered by operating grants. These are referred to as 'funded' facilities. Thus, commercial centres rely solely on parent fees (which are not regulated by the government) while funded facilities cover their costs through a combination of parent fees, government grants (operating and other) and fee subsidies paid on behalf of parents by the provincial government.

The level of operating grants per space varies by the type of facility and the age group of the children using them. *Table 4* presents the per space operating grants for 2019/20.

In 2019/20, the province spent \$195.076 million on 'grants and financial assistance' to licensed homes and centres.

In funded centres, parent fees are capped at a daily maximum amount which is set out in provincial regulations. For children attending centres, the maximum fees are \$30.00 for an infant, \$20.80 for a pre-school child and \$10.80 for a school age child.⁷ In homes, the maximum fees are \$22.80, \$18.20 and \$10.80, although homes where the provider holds an ECE certificate may charge the same parent fee as centres. In practice, facilities charge parents the maximum daily fee for the level of care their children receive unless the parent has applied for and been approved for a child care subsidy. In that case, the facility charges the parent the reduced fee and bills the province for the difference between the full and subsidized fee.

The current approach to setting family fees for licensed child care uses the Early Learning and Child Care (ELCC) definition of net family income (NFI) which is described in Appendix 1. The current formula for calculating the family fee is:

Minimum Threshold (MinT) =	\$10,982 + \$5,438 for spouse or 1st
(Southern Manitoba)	child of single parent + \$3,042 for each
	(additional) child + \$1,643 for each child
	with special needs.
Minimum Threshold (MinT) =	\$12,083 + \$6,554 for spouse or 1st child of
(Northern Manitoba)	single parent + \$3,881 for each (additional)
	child + \$1,643 for each child with special
	needs.
Tax Rate Change Threshold =	MinT + (\$5,356 × Number of Children
(TRCT)	Receiving Child Care)
Maximum Threshold =	Net Family Income at which the parent fee
(MaxT)	equals the Maximum Daily Fee.
Maximum Cost of Care =	Maximum Daily Fee × Number of Child
(MCC)	Using Licensed Care
Family Fee (FF) = \$2/day/ch	nild, if NFI < MinT;
= [(NFI – N	/linT) × 0.25] + \$2/day, if MinT < NFI < TRCT;
= [((NFI – T	RCT) × 0.50)+ (\$1,339 × Kids in CC)] + \$2/day,
if NFI > T	RCT.
= Maximur	n Cost of Care (MCC), if FF > MCC

For a single parent with 1 child aged 3 in licensed care for 260 days in the year living below the 53rd parallel, her minimum threshold is \$16,420, her tax rate change threshold is \$21,776 and her maximum cost of child care for the year is \$5,408 (260 days × \$20.80/day). If her net family income is below \$16,420, she will pay \$520 per year for licensed care (because of the minimum \$2/day per child fee for subsidy). If her income is above the minimum but lower than \$21,776, she will pay the \$520 plus 25 per cent of the amount by which her NFI is above the minimum threshold. If her NFI is higher than \$21,776, she will pay the \$520 plus \$1339 (= 25 per cent of \$21,776 – \$16,420) plus 50 per cent of the amount by which her NFI was above \$21,776. At \$28,874 of NFI and higher, her parent fee will reach the maximum cost of child care.

Based on our analysis of the data set of families using licensed care in Manitoba in 2019, we estimate that parent fees amounted to \$173.7 million revenue annually. Combined with the \$195.1 million in provincial grants and financial assistance, total funding for the licensed care system in Manitoba in 2019 was in the order of \$368.808 million with parent fees and government funding making up almost equal shares.

Comparative Income Profile of the Families and Children Using and Not Using Licensed Care

We estimate that in 2019, there were 105,700 families living off-reserve in Manitoba with one or more children under 13 years of age, including 195,700 children. Of that total, 23,070 families including 37,650 children were using licensed child care. *Table 5* presents a comparative profile of the income levels of those using and not using licensed care, using the Market Basket Measure as the poverty threshold.⁸

This table clearly reveals that the families *not* using the licensed care system in Manitoba are over three times as likely to have incomes below the MBM poverty line than families using licensed care (16 per cent vs. 5 per cent). On average, their MBM family income is \$79,763 compared to \$94,470 for families using licensed care. By comparison, almost half (49 per cent) families using licensed care have incomes that are between two and four times the MBM poverty line; whereas, only 27 per cent of families not using licensed care have incomes between two and four times the MBM.

One of the reasons why lower income families are less likely to use licensed care is that they are less likely to be employed and thus require licensed care. However, as we saw in the previous section of the report, very few lower income families qualify for a fee subsidy resulting in these families facing relatively high fees which would incentivize them to seek out informal and cheaper care arrangements. In addition, licensed care centres tend to be located in the more affluent areas of Winnipeg thus creating a lack of supply of licensed care even if it were affordable for lower income families.

MB M Family Income Group	Families with Chil	dren O–12 Years	Children O to	Children O to 12 Years	
(Average MBM Income)	No Licensed Care	Licensed Care	No Licensed Care	Licensed Care	
Under 1 × MBM (\$29,228)	16.3%	5.0%	15.3%	4.3%	
1 – 2 × MBM (\$68,489)	54.0%	42.2%	60.0%	45.2%	
2 – 3 × MBM (\$107,392)	22.4%	40.3%	18.4%	38.0%	
3 – 4 × MBM (\$147,310)	4.3%	8.4%	3.6%	8.2%	
4 – 5 × MBM (\$199,295)	2.0%	2.2%	1.8%	2.2%	
5+ × MBM (\$306,223)	1.0%	1.9%	0.9%	2.1%	
Total (\$82,972) (Number of Families/Children) Average MBM Income	100.0% (82,662) \$79,763	100.0% (23,072) \$94,470	100.0% (158,076)	100.0% (37,653)	

TABLE 5 Distribution of Families and Children by their MBM Income Level and Use of Licensed Care Facilities — Manitoba 2019

The Current Cost of Licensed Care for the Families Using It

Even though the families who use licensed care are, on average, higher income than those not using licensed care, a significant number of them face unaffordable child care fees when we define 'unaffordable' as paying more than 10 per cent of adjusted family income on the net cost of licensed care. *Table 6* shows the degree of unaffordable licensed care by the family's income relative to the MBM poverty line.

It reveals that more than 25 per cent of families with incomes below three times the MBM poverty line using licensed care full year and full time would be paying more than 10 per cent of their disposable family income on full time full year child care fees while practically no families with higher incomes would be paying more than 10 per cent. Overall, 24.3 per cent of Manitoba families would face an affordability issue, using the 10 per cent criterion.

TABLE 6 Average Annual Current Licensed Net Child Care Fees by MBM Family Income Group — Manitoba 2019

MBM Family Income Group	Per cent of All Families	Average MBM Family Income	Average Current Gross Fee	Gross Fee As a Per cent of Adjusted MBM Income ⁱ	Per cent of Families Facing Unaffordable Child Care"
Under 1 × MBM	5.0%	\$30,308	\$2,850	5.8%	25.7%
1 to 2 × MBM	42.2%	\$69,356	\$7,222	8.6%	29.9%
2 to 3 × MBM	40.0%	\$104,967	\$8,315	7.6%	25.7%
3 to 4 × MBM	8.4%	\$139,864	\$7,694	4.7%	0.8%
4 to 5 × MBM	2.2%	\$185,300	\$8,254	4.0%	0.0%
5+ × MBM	1.9%	\$287,339	\$8,481	2.9%	0.0%
Total (Number of Families)	100.0 (23,072)	\$94,470	\$7,530	7.5%	24.3% ⁱⁱⁱ

Source Statistics Canada, SPSD/M Version 28.1 Income Data base. Calculations by the author.

i The MBM family income has been adjusted for the impact of claiming the CCED on taxes paid and CCB received.

ii Those families paying more than 10 per cent of their adjusted MBM income are deemed to experience unaffordable child care.

iii It should be noted that the per cent of families paying more than 10 per cent of their income on licensed care is lower than the per cents presented in Table 3.2 above, even for

2017 for several reasons. First, family income has been adjusted to take into account the impact of the child care expense deduction on taxes paid and Canada Child Benefit payments. Second, the simulation is based on a more current Statistics Canada data set that has been reweighted to reflect the age distribution and subsidy receipt of families using licensed care in Manitoba. Thus, the rates of unaffordable child care presented in this table are not comparable to those presented in Table 3.2 above.

Creating an Affordable Licensed Child Care System in Manitoba

THE NEED FOR an affordable licensed care program in Manitoba was recognized most recently in the Early Learning and Child Care Commission's Final Report released in 2016.⁹ By way of summarizing the authors' recommendations of how to create an affordable licensed care fee structure for Manitoba, *Table 7* compares the Commission's recommendations with the approach adopted in this study.

This proposal for an affordable parent fee structure agrees with the Commission's call for eliminating the \$2 per day per child minimum fee, the annual adjustment of parent fee income thresholds and maximum daily fees, increases to the current maximum daily fees and the use of a single maximum daily fee for all children age o to 5 years (instead of separate infant and preschooler fees). However, this proposal recommends the continued use of the ELCC program's definition of net family income for assessing parent fees and presents a more explicit formula for assessing parent fees based on the principle of a *sliding or progressive* scale of fees as family income increases. As well, it proposes three different options for defining an affordable parent fee schedule, varying in terms of the minimum family income threshold at which families begin to pay for licensed care and the maximum per cent of their after-tax family income that will be spent on the cost of licensed child care.

TABLE 7 Recommended Steps to Create an Affordable Sliding Childcare Fee Structure for Manitoba

ELCCC Report	This Report
Minimum Daily Fee – Eliminate the unfunded \$2/day/child fee.	Minimum Daily Fee – Eliminate the unfunded \$2/day/child fee.
Maximum Daily Fees – One fee for infant and pre-school children and set the common fee at \$25 per day for full day care to reflect the increase in the CPI between 2005 and 2015.	Maximum Daily Fees – one fee for infant and pre-school children and a lower fee for school-aged children. The pre-school fee is \$27.20 per day and the school-age fee is \$11.56 per day which reflects the increase in the CPI between 2000 and 2020.
Definition of Net Family Income for Assessing Parent Fees – The family's net income as reported on line 236 of the Income Tax Form. This definition does not include the CCB but includes social assistance income (line 145), deducts the CCED (line 214), does not deduct federal and provincial taxes paid (line 437) and only partly captures education income.	Definition of Net Family Income for Assessing Parent Fees – The ELCC's definition of net family income. This definition does not include the CCB or social assistance income, does not deduct the CCED and deducts federal and provincial taxes paid. A close CRA tax return equivalent to the ELCC definition would be (line 236 – line 145 + line 214 – line 437).
Parent Fee Schedule – "a sliding scale based on parent's net income as indicated on their tax assessments The fee schedule keeps fees for families at the median household income at approximately 10 per cent of their net family income and less for families with incomes below the median. Families would pay the lower of their assessed fee or the maximum regulated fee."	Parent Fee Schedule – There is a sliding scale that rises from 0 to 100 per cent of the maximum daily fees as family net income increases from the Market Basket Measure poverty threshold to that level of net family income at which the maximum daily fee is either 10, 7.5 or 5 per cent of net family income. Beyond that level of net family income, the family pays the maximum daily fee.
Minimum Income Threshold for Paying Fees – \$20,000 per family.	Minimum Income Threshold for Paying Fees – MBM Poverty Threshold for Winnipeg.
Frequency of Indexing Parent Fee Formula & MDF – Annually using the change in the provincial CPI	Frequency of Indexing Parent Fee Formula & MDF – Annually using the change in the provincial CPI
Frequency of Assessment of Parent Fees – Annually	Frequency of Assessment of Parent Fees – Annually
Pro-rate fees in family home childcare	Not addressed in this report.

The minimum threshold is set at the Statistics Canada Market Basket Measure (MBM) threshold. The maximum per cent of family income allocated to child care expenses is set either at 10.0 per cent, 7.5 per cent or 5.0 per cent. The 10.0 per cent threshold is that set out in Gordon Cleveland's analysis of licensed care in Ontario¹⁰ while the 7.5 per cent threshold approximates the standard set by the U.S. Dept. of Health (7 per cent of State Median Income) and the 5.0 per cent threshold is just under the maximum 6 per cent of family income threshold set by Norway and Sweden.

An Affordable Sliding/Progressive Child Care Fee Schedule

To address these shortcomings of the current formula, we have developed the following formula for setting child care fees which ensures that no family pays more than a given fixed per cent of their disposable family income on net child care fees.

This formula features a gradually increasing fee rate which rises from o per cent to 100 per cent of the maximum daily fee (MDF) over that range of adjusted net family income (AdjNFI) between a Minimum and Maximum Threshold (MinT and MaxT).

Per Child Family Fee (FF) = \$0, if AdjNFI < MinT; = MDF × Fee Rate (FR), if MinT<AdjNFI<MaxT; = MDF, if AdjNFI>MaxT.

where,

FR =	= (AdjNFI – MinT)/(MaxT – MinT)11
AdjNFI =	= Net Family Income × (MBM Threshold for 2 persons/
	MBM Threshold for actual family size)
MinT =	= MBM Poverty Line for a 2 person family
MaxT =	= (MDF for pre-school care/Affordability Rate)
	(Affordability Rate = Max. Per cent of Disposable Family

The total fee paid by the family is the sum of the per child fees but capped at the value equal to (After-tax Family Income × the Affordability Rate (AR)).

Income Spent on Licensed Child Care)

This formula differs significantly from the current ELCC formula in several ways. First, it adjusts net family income by family size to make the income equivalent in terms of purchasing power. Then, it sets the minimum threshold at the MBM poverty line for the two person family, thus ensuring that it will be updated annually. Third, it calculates the parent fee as a per cent of the maximum daily fee rather than as a per cent of family net income. Finally, it explicitly defines the maximum threshold in terms of the targeted affordability rate, ensuring that no family pays more than that threshold per cent of its disposable family income on licensed child care.

Affordable Child Care Fee Options

We present three different options for an affordable licensed care fee in Manitoba, differentiated by the maximum per cent of family income which will be spent on the net cost of licensed child care. In the following tables, we compare the options in terms of their impact on the gross and net fees for licensed care, the per cent net fees represent of family disposable income and

TABLE 8 Average Gross Licensed Care Fees by MBM Family Income Group — Manitoba 2019

MBM Family Income Group	Current ELCC Formula	10% Affordability Threshold	7.5% Affordability Threshold	5% Affordability Threshold
Under 1 × MBM	\$2,849	\$313 ⁱ	\$393 ⁱ	\$256 ⁱ
1 to 2 × MBM	\$7,222	\$3,816	\$2,896	\$2,034
2 to 3 × MBM	\$8,315	\$7,132	\$5,832	\$4,091
3 to 4 × MBM	\$7,674	\$8,869	\$8,420	\$6,781
4 to 5 × MBM	\$8,254	\$9,220	\$9,166	\$8,102
5+ × MBM	\$8,481	\$9,888	\$9,887	\$9,637
Total Total Revenue (\$M) Revenue Gap (\$M)	\$7,530 \$173.7 	\$5,638 \$130.1 \$43.6	\$4,627 \$106.7 \$67.0	\$3,454 \$79.7 \$94.0

i In this and the following tables, one notes positive amounts of fees paid by those with family incomes below the MBM threshold. This is because the ELCC net family income measure used to calculate fees is always lower than the MBM income resulting in some families having ELCC family incomes above the threshold and paying fees but with MBM family incomes below the threshold.

TABLE 9 Average Per cent of Adjusted Family Disposable Income Spent on Licensed Care Fees by MBM Family Income Group — Manitoba 2019

MBM Family Income Group	Current ELCC Formula	10% Affordability Threshold	7.5% Affordability Threshold	5% Affordability Threshold
Under 1 × MBM	5.8%	0.3%	0.2%	0.2%
1 to 2 × MBM	8.6%	4.0%	3.0%	2.2%
2 to 3 × MBM	7.6%	6.1%	4.9%	3.5%
3 to 4 × MBM	4.7%	5.4%	5.2%	4.1%
4 to 5 × MBM	4.0%	4.4%	4.4%	3.9%
5+ × MBM	2.9%	3.3%	3.3%	3.2%
Total	7.5% ⁱ	4.8 %	3.8%	2.8%

i This average per cent is lower than the 9.0% reported in Table 3.1 above because it is based on a different data set and calendar year.

the per cent of families gaining from the move to an affordable fee formula coupled with higher maximum daily fees.

Table 8 compares the *gross* parent fees paid under the current and each of the three affordable fee options. It shows that the current parent fee structure would raise \$174 million per year in revenues from parents while the affordable fee options would raise less revenue, ranging from \$80 million for Option 3 to \$130 million for Option 1, leaving a funding gap of between \$44 and \$94 million per year. *Table 8* also reveals that each of the affordable fee options results in lower fees for those families with incomes below 3 times the MBM. For those families with incomes between 4 and 5 times the

MBM Family Income Group	10% Affordability Rate	7.5% Affordability Rate	5% Affordability Rate
Under 1 × MBM	97.7%	97.7%	97.7%
1 to 2 × MBM	89.8%	99.8%	99.8%
2 to 3 × MBM	56.7%	72.2%	95.9%
3 to 4 × MBM	14.0%	21.1%	43.4%
4 to 5 × MBM	12.8%	13.8%	42.0%
5+ × MBM	2.9%	2.9%	11.8%
Total	67.1%	78.2%	90.4%

TABLE 10 Per cent of Families Who Would Pay Less Than Current Licensed Care Fees Under Progressive Pricing — Manitoba 2019

MBM, all but those facing the 5 per cent affordability rate pay more while all families with incomes above 5 times the MBM pay more. It also shows that, as one moves from the first affordable fee option to the last one, the gross cost of licensed care across all children in the family drops — from an overall average of \$5,638 to \$3,454.

Table 9 shows average cost of the current and affordable licensed care fees as a per cent of the family's disposable income adjusted for the reductions in taxes paid and increases in the CCB received due to claiming the Child Care Expense Deduction (CCED).

It shows that each of the affordable fee options result in families paying a smaller per cent of their family income than under the current fee formula with progressively lower fees as the affordability threshold drops from 10 to 5 per cent of family income. The increased maximum daily fees coupled with the affordable fee structure results in higher fees only for those families with incomes more than 3 times the MBM for the 10 and 7.5 per cent affordability threshold. With the 5 per cent affordability threshold option, only those families with incomes greater than 5 times the MBM pay higher fees.

Finally, *Table 10* shows the per cent of families whose licensed child care fees are lower under the affordable fee options than under the current fee formula. For the lowest income families, almost all (98%) pay less under the three affordability fee schedules than they now do. For those families with incomes above the MBM, more of them benefit from the affordable fee options with the lower thresholds.

Revenue Sources for Financing an Affordable Licensed Care Program in Manitoba

AS NOTED ABOVE, the move to any of the three proposed affordable parent fee options results in a loss in revenues from parent fees of between \$44 and \$94 million per year. To ensure licensed care facilities experience no drop in current levels of funding, additional sources of revenue are required to fill that gap. The gap has to be filled immediately by higher operating grants from the provincial government. However, the provincial government recoups part of those higher payments through increases in income taxes due to the affordable child care fees causing lower child care expense deductions claimed by parents which, in turn, result in higher taxable incomes. The federal government also benefits from the same increase in taxable income both through higher tax revenues and lower Canada Child Benefits. However, as is shown below, most of the tax revenue to pay these higher operating grants will come from the increased economic activity and taxes generated by the growth in the employment of parents drawn into the labour market by the lower licensed care parent fees. **TABLE 11** Additional Provincial and Federal Tax Revenues and Lower CCB Payments Resulting from the Lower Licensed Care Fees (\$Millions)

Fee Structure Options	Gross Gap in Operating Grants	Additional Provincial Taxes	Additional Federal Taxes	Lower CCB Benefits	Total Additional Revenue	Net Gap in Operating Grants
10% AR	\$43.6	\$2.2	\$3.5	-\$2.7	\$8.4	\$35.2
7.5% AR	\$67.0	\$4.7	\$6.4	-\$3.9	\$15.0	\$52.0
5% AR	\$94.0	\$7.8	\$10.2	-\$5.3	\$23.3	\$70.7

1. Gross vs. Net Provincial Operating Grants

For the 2018/19 and 2019/20 years, the average per capita 'grant-plus-financialassistance' was \$5,307 per funded space (\$182.5M/34,392 spaces). In order to cover the funding gaps presented above in *Table 8*, the per capita amount would have to increase. However, as noted above, the provincial government will recoup part of the cost of the higher operating grants through higher taxes. *Table 11* presents estimates of the amount of additional provincial and federal tax revenue and lower CCB payments generated by the lower fees paid by parents which would result in lower net operating grants.

The provincial government could well ask the federal government to flow through its savings to support the licensed care program in Manitoba. Were the federal government to do so, then the gross revenue gap presented in *Table 12* would drop to \$35.2 million for the 10 per cent AR option, \$52.0 million for the 7.5 per cent AR option and to \$70.7 million for the 5 per cent AR option. In turn, this would result in operating grants per funded space of \$6,330, \$6,819 and \$7,363 per year, respectively.

2. Parent Fees

The affordable parent fee schedule that we have proposed raises the current maximum daily fees by 31 per cent (\$27.20 vs. \$20.80). This increase represents the contribution which parents are making toward the increased cost of providing an affordable parent fee structure. *Table 12* documents the gap in total revenue generated by two fee scenarios — one using the current maximum daily fees and the other using the higher daily fees. The difference between the two revenue gaps represents the contribution which parent fees are making to the total gap.

Fee Structure	Current Maximu	Current Maximum Daily Fees		Higher Maximum Daily Fees		
Options	Total Revenue	Revenue Gap	Total Revenue	Revenue Gap	to the Gap	
Current ELCC	\$173.7	—	_	_	—	
10% AR	\$118.1	\$55.6	\$130.1	\$43.6	\$12.0	
7.5% AR	\$99.0	\$74.7	\$106.7	\$67.0	\$7.7	
5% AR	\$74.9	\$98.8	\$79.7	\$94.0	\$4.8	

TABLE 12 Total Revenues (\$M) from Parent Fees Under the Affordable Fee Vs. Current Fee Structure

The parent contribution ranges from \$12.0 million for the 10 per cent AR option to \$4.8 million for the 5 per cent AR option.

3. Higher Employment Rates, Earnings and Government Revenues

The gap in revenue shown in *Table 11* can be met by higher federal and provincial taxes generated by increases in the earned income of families drawn into the labour market by the lower parent fees offered to the lower income families and by the increase in economic activity generated by that employment. The impact of more affordable licensed care on parents' participation in the labour force and increase in government revenues accruing from increased employment rates has been demonstrated for Quebec and calculated for Ontario.

Fortin, Godbout and St-Cerny looked at the impact of Quebec's adoption of a universal low fee child care program for parents in a 2011 paper.¹² They found that it increased labour force participation of women with pre-school children by about 13.6 percentage points, led to a 1.7 per cent increase in the provincial GDP of \$5.1 Billion and resulted in an increase in federal and provincial government revenues of \$2.411 Billion. By comparison, the net cost of the Quebec child care program was \$1.646 Billion, resulting in savings of \$765 million. They used the empirically demonstrated relationships between the growth in employment, GDP and government revenues to arrive at their estimates of the total economic activity generated by increases in the employment rates of parents and the federal and provincial government revenues accruing from GDP growth.

In his review of Ontario's licensed child care system, Gordon Cleveland (2018) developed a model of child care use based on the 2011 National Household Survey that incorporated behavioural responses of families to changes in the cost of child care.¹³ As an alternative to the current subsidy system, he proposed several affordable child care plans that alternatively featured (a) higher threshold levels for full subsidies and sliding fee scales, (b) free child care for preschoolers plus a sliding fee scale for infants and school aged children and (c) a flat \$20 per day per child fee. In comparison to the existing system of subsidies and operating grants, these three affordable options resulted in — a more than doubling of demand for licensed care, a 14 to 16 per cent increase in the number of employed primary care giving parents and an increase in both the cost to government and in tax revenues to pay for it. On balance, moving to any of the three resulted in increased net child care costs to government in the order of 14 to 15 per cent of existing net revenues.

Using one of the behavioural parameters of Cleveland's study — the responsiveness of the main care giver to taking up employment, to changes in the net cost of licensed child care — we modeled the impact of our proposed affordable parent fee schedule on employment rates, earnings and federal and provincial government revenues flowing from the immediate, first round effects of that employment. Appendix 3 describes the methodology.

Costs and Revenues Assuming the Immediate Supply of Additional Child Care Spaces

Table 13 presents our estimates of the impact of moving to an affordable fee schedule. These results and those presented in *Table 14* assume that sufficient additional child care spaces already exist to accommodate the new entrants to the labour force. In *Table 15*, we model a more realistic scenario where new spaces are added at the average annual rate observed in Manitoba over the last five years.

TABLE 13 Impact of Affordable Fee Options on the Employment and Earnings of the Main Care Giving Parent and Federal and Provincial Government Tax Revenues and CCB Costs

Affordable Fee Option	Change in Number of Employed	Change in Total Earnings (\$M)	Change in Provincial Taxes (\$M)	Change in Federal Taxes (\$M)	Change in CCB Benefits (\$M)
10% AR	+4,935	+\$108.0	+\$1.2	+\$2.5	-\$2.1
7.5%AR	+5,505	+\$120.5	+\$1.5	+\$2.9	-\$2.7
5% AR	+6,075	+\$132.9	+\$1.8	+\$3.4	-\$2.8

The change in employment represents between a 10.0 to 12.4 percent increase in the employment rate of main care giving parents and would contribute between \$108.0 and \$132.9 million in annual earnings. In turn, these increases in earnings would raise federal tax revenues by between \$2.5 and \$3.4 million, reduce CCB payments by between \$2.1 and 2.8 million (due to higher family incomes) and increase provincial tax revenues by between \$1.2 and \$1.8 million. These higher government revenues represent 13 per cent of the net gap for the 10%AR option, 11 per cent for the 7.5%AR option and 9 per cent for the 5%AR option.

However, these changes in provincial and federal revenues do not take into account the multiplier effects of the increased level of employment on the provincial economy. To estimate the possible magnitude of those effects, we used the methodology employed by Fortin et.al. with slight modifications. That methodology is described in Appendix 4.

Looking just at the Manitoba economy, we have estimated that the additional number of employed people generated by the affordable child care fees shown above in *Table 13* would have increased the provincial GDP by between 0.65 and 0.80 per cent — an increase of between \$426 and \$524 million in 2019. These increases would have translated into provincial government own-source revenue increases of between \$73.6 and \$90.5 million in 2019. Parent fees would add between \$21.0 and \$27.8 million to these revenues to pay for the increased costs associated with the additional parents requiring licensed care.

Offsetting these revenue gains would be the capital cost of building additional licensed spaces to accommodate the additional children requiring child care and their associated annual operating costs. We estimate that there are 1.2 children per family using licensed care in Manitoba, resulting in 5,922, 6,606 and 7,290 additional spaces required for the three affordable fee options, respectively. At an average construction cost of \$15,529 per space,¹⁴ between \$92.0 million and \$113.2 million of capital would be required to construct the additional required spaces, with annual financing costs of between \$5.4 and \$6.6 million. Annual operating grants and financial assistance were \$5,307 space in 2019 but would be higher under the affordable fee options, resulting in annual grants of between \$37.4 and \$53.6 million.

The net financial return of the estimated growth in employment generated by the affordable fee structure is presented below in *Table 14*.

The first two options would generate sufficient surplus revenue to cover the loss in revenue from parent fees resulting from the affordable fee structure. The third would result in a \$19.5 million deficit.

TABLE 14 The Annual Costs, Revenues and Net Income Generated by the Additional Parents Drawn into Employment by the Affordable Fee Structure

	Costs (\$Million) Total		Total Re	Revenues (\$Million)			Increase in	Coursement	
Option	New Spaces ⁱ	Grants ⁱⁱ	Total	Provincial Taxes ⁱⁱⁱ	Fees ^{iv}	Total	Revenue	Operating Grants ^v	Balance
10% AR	\$5.4	\$37.4	\$42.8	\$73.6	\$27.8	\$101.4	+\$58.6	+\$35.2	+\$23.4
7.5% AR	\$6.0	\$45.0	\$51.0	\$82.0	\$25.5	\$107.5	+\$56.5	+\$52.0	+\$4.5
5.0% AR	\$6.6	\$53.6	\$60.2	\$90.5	\$21.0	\$111.5	+\$51.2	+\$70.7	-\$19.5

i This assumes a principal of \$16,000 per space, 25 year amortization, 3% interest rate, fixed 10 year term and monthly payments.

ii These are the net per space operating grants derived from Table 12 above × additional spaces.

iii These totals are shown in Table A4.3 below.

iv These are the average gross fees shown above in Table 8 × number of additional parents employed.

v These are the total net gaps in operating grants as reported in Table 12.

Costs and Revenues with a Phased-in Supply of Additional Child Care Spaces

A more realistic scenario of the costs and revenues that would flow from the introduction of an aff×ordable parent fee schedule features the number of new parents entering employment at the rate that additional licensed care spaces are built. Over the last five fiscal years, the licensed care system in Manitoba has grown at an annual average of 1,165 spaces. Assuming that this level of growth continues into the future, *Table 15* presents the annual change in costs and revenues for Option 1 (10 per cent AR) for Manitoba.

We have assumed that the costs of financing the expansion of the licensed child care system begin in the first year but that it takes a year to build and occupy the additional spaces. Thus, revenues start to flow in year two. The costs are driven by the number of new spaces created while the revenues are driven by the number of additional parents employed. Revenues rise more quickly than costs showing a positive balance except for the first year. However, each year the government is paying \$35.2 million more in net operating grants to offset the lower parent fees paid under Option 1 and the net revenues don't exceed this cost until year five. It takes until year eight to retire the accumulated deficit. After that, the government realizes a significant growth in net income from the investment in lower fees and more spaces.

TABLE 15 The Annual Change in Costs and Revenues Associated with a Gradual Growth of the Licensed Child Care System Under the Affordable Fee Schedule — Option 1 (\$Millions) — Manitoba Costs and Revenues

Year	Number of Spaces & Families	Total Cost	Total Revenue	Net Revenue	Additional Cost of Affordable Fee	Cumulative Balance
1	0/0	\$1.1	\$0.0	-\$1.1	\$35.2	-\$36.3
2	1,165/971	\$9.5	\$20.0	\$10.5	\$35.2	-\$60.9
3	2,330/1,942	\$17.9	\$40.0	\$22.1	\$35.2	-\$74.0
4	3,495/2,913	\$26.3	\$60.0	\$33.6	\$35.2	-\$75.6
5	4,660/3,883	\$34.8	\$79.9	\$45.1	\$35.2	-\$65.7
6	5,825/4,854	\$43.2	\$99.8	\$56.5	\$35.2	-\$44.3
7	6,990/5,825	\$50.9	\$119.6	\$68.7	\$35.2	-\$10.8
8	7,290/6,075	\$52.8	\$124.7	\$71.9	\$35.2	\$26.0
9	7,290/6,075	\$52.8	\$124.7	\$71.9	\$35.2	\$62.7
10	7,290/6,075	\$52.8	\$124.7	\$71.9	\$35.2	\$99.5

Speeding Up the Rate of Construction of New Spaces

The key factor which affects the length of time it takes to achieve a positive cumulative balance is the rate at which new child care spaces are constructed. For example, if the rate of construction of licensed care spaces were increased from 1,165 to 2,000 spaces for year, a positive cumulative balance of \$10.7 million would be realized within 6 years.

Summary of Findings

SINCE IT CREATED the schedule for calculating the fees charged to families for the cost of licensed child care in Manitoba, the provincial government has only intermittently indexed the income parameters of that fee schedule and the maximum daily fees charged for licensed care. As a result, fewer lower income families qualify for any fee subsidy and more higher income families face lower real fees. By 2019, we estimate that 28 per cent of families with incomes below 3 times the MBM threshold using full time full year child care would be paying more than 10 per cent of their disposable family income on licensed care.

To address this failure to provide an affordable fee structure for parents using the licensed child care system in Manitoba, we have proposed the adoption of an affordable fee structure that explicitly sets the minimum threshold at the MBM poverty line and the maximum income threshold at that level at which the maximum daily fee costs no more than the affordable fee benchmark. To reflect the several standards of affordability used by different countries, we have set out three options, varying in terms of the affordable fee benchmark rate. They all ensure that the cost of licensed care is the least for the lowest income families and the most for the highest income families.

Each of these options would result in lower parent fees than the current fee formula — ranging from \$44 million less per year for the 10 per cent affordable benchmark to \$94 million less for the 5 per cent affordable benchmark. However, the lower fees would result in higher tax revenues for both the provincial and federal governments, resulting in a net increase in costs of between \$35 and \$71 million. In addition, the lower fees could result in between 4,935 and 6,075 more parents entering the labour market which could generate between \$74 and \$91 million more in provincial government tax revenues which would be more than sufficient to cover the cost of constructing the additional child care spaces and offset the loss of revenue from the lower parent fees.

In sum, were the Province to adopt the proposed affordable licensed child care fee schedule, it would not only bring needed relief to low income families paying unaffordable fees but also expand the labour force and grow the provincial GDP to the extent that the additional provincial tax revenues would pay for the higher operating grants required by the new affordable fee structure.

Appendix 1

Description of the Data Sources and Methodology for Tracking Historical Changes in the Per cent of Families Qualifying for Full and Partial Subsidies

TO UNDERTAKE THE analysis of the number of families with children of licensed child care age who would qualify for full and partial subsidies under the rules of the formula used to assess parent fees, we accessed four public use micro data files (PUMFs) of national income surveys undertaken by Statistics Canada. These data sets are available through the ODESI portal at the University of Manitoba. For 2002 and 2007, we extracted the Manitoba data for census families from the Survey of Labour and Income Dynamics. For 2012 and 2017, we accessed the Manitoba data for all individuals from the Canadian Income Surveys, aggregated the relevant individual-level variables to the census family level and created one record per census family.

The common set of variables across the four data sets that we required to model the licensed child care fees paid by families included the following:

- Household weight;
- Age of children (2002, 2007 surveys);
- Age group of youngest child (2012, 2017 surveys);
- Family size;

- Family type (single/two parent);
- Number of children under 18;
- After-tax family income;
- Child care expenses;
- Total family income;
- Total federal & provincial taxes paid;
- Social Assistance income;
- Federal child benefits;
- Union & professional dues;
- EI & CPP contributions;
- Alimony paid.

With these variables, we created data sets of those census families with any children under 10 years of age who had any child care expenses. We used the under 10 cut-off because the 2012 and 2017 data sets used age groupings of 0 to 5, 6 to 9 and 10 to 15 years and we wanted to exclude children not eligible for licensed care. We then calculated the family net family income, as defined by the ELCC program, by subtracting from total family income the following income sources: social assistance and federal child benefits, total federal and provincial taxes paid, union & professional dues, EI & CPP contributions and Alimony paid. There are other sources included in the ELCC income application form such as education bursaries and scholarships but the income surveys did not capture these.

We then calculated the parent fee payable according to the formula set out in clauses 41(5) to 41(9) of the child care regulations using the income thresholds for southern Manitoba and assuming no children with special needs. To achieve consistency across the four surveys in the number of children using licensed care, we calculated the parent fees based on the average number of children aged o to 5, 6 to 12 and o to 18 living in these families as of 2017. For two parent families, we used the averages of 1.23 children o to 5, o.89 children 6 to 12 and 2.13 children o to 18. For lone parent families, the averages were 1.05, o.94 and 1.91 children, respectively. We assumed that these numbers of children were using licensed care full time and full year. In calculating the full cost of care on an annual basis, we used the maximum daily fees in effect for each of those years and assumed that pre-school care would be for 260 days per year at the 4 to 10 hour per day rate. For school-aged care, we assumed there would be 190 days of care at the rate for 2 periods of attendance and 70 days at the in-service and school holidays rate.

In Tables 3.1 and 3.2 we present the results by the MBM Poverty Threshold income groups. We measured the MBM for these tables using the census family income as the unit instead of the economic family because we were using census family income data sets. However, we were able to approximate the definition of the family income used to compare to the MBM threshold which is [Total After-tax Family Income — child care expenses — out-of-pocket medical expenses — union/professional dues — registered pension plan contributions — capital gains]. We used the 2008 MBM Threshold.

All results are based on the weighted counts of families, using the Statistics Canada weights provided in the data sets.

Appendix 2

Data Sources and Methodology for Calculating Gross and Net Fees Paid by Families Using Licensed Child Care in Manitoba in 2019

The Data Set

Statistics Canada produces a tax/transfer modeling program called SPSD/M (Social Policy Simulation Database & Model) that is based on the Canadian Income Survey (CIS) data supplemented by income tax data on high income earners. The most recent version uses data from the 2016 CIS; but, within the SPSD/M modeling package, there are population and income growth factors that allow the 2016 data to be 'grown' out to 2022, based on known growth rates. The package also allows one to create data sets of one's choosing and export them for analysis using statistical packages.

For the purposes of estimating licensed child care fees being paid by families living in Manitoba, we created a data set of those parents with any children under 13 years of age reflective of the population and income in 2019 in Manitoba. It contains the following variables needed to undertake the analysis:

- Household weight
- Gender of main caregiving parent
- Family Status (single vs. two parent)

- Number of Years of Completed schooling of Parent
- Potential Number of Years in the Labour Market¹⁵
- Number of persons in census family
- Number of children age o to 1 years in family
- Number of children age 2 to 5 years in family
- Number of children age 6 to 12 years in family
- Number of children age o to 17 years in family
- Net Census Family Income as defined by CRA ;i.e., net of eligible child care expenses
- Net Census Family Income as defined by the Family child care subsidy program¹⁶
- Disposable Census Family income; i.e., after tax and after child care expenses
- MBM economic family income
- Total Cost of child care for all children o to 15 years¹⁷
- Child Care Expense Deduction
- Any Employment¹⁸
- Total earnings
- Total earnings of Head of Family
- Total Taxable Income of Main Care giving Parent; i.e., gross income minus the cost of child care

Creating a Data Set Reflective of the Population of Families Using Licensed Child Care

Because the initial data set extracted from the SPSD/M package includes *all* families with one or more children under 13, it does not reflect the sub set which use licensed care. Because there is no variable in SPSD/M which identifies whether the family used licensed care, we had to find a proxy for that. The best proxy available was the presence of the child care expense

TABLE A2.1	Number of Childre	ו in Families	Claiming a	a CCED by	Age Group vs.	. Number of
Licensed Sp	aces					

Age Group	Weighted Counts of Children in Families	Number of Licensed Spaces	Per cent of Licensed Spaces to Children
O to 5 years	33,032	24,805	75.1%
6 to 12 years	34,172	12,654	37.0%
Total	67,204	37,459	55.7%

Source Statistics Canada, SPSD/M, version 28 and Dept. of Families Annual Report 2018/19.

deduction (CCED) because all families using licensed care get a tax receipt from the centre or home indicating total licensed care expenses for the year.

However, families not using licensed care also can claim a child care expense deduction if they sent the child to summer camp or used unlicensed care for which they paid and received a statement from the caregiver. This became clear when we compared the weighted counts of the number of children in families claiming a CCED with the number of licensed spaces by the age of the child. Table A2.1 shows the difference in counts of children by age group.

In order to obtain a weighted sample of families claiming a CCED which contained the same number of children within the two age groups as there are licensed care spaces, we used the per cents in the above table to re-weight the data. The existing household weights are variable and reflect the sampling fractions used by Statistics Canada to undertake the income survey. What we did was multiply this variable household weight by the fixed weight we attached to each configuration of families — those containing only children o to 5 years, those containing only children 6 to 12 years and those containing children of both age groups. To the latter group, we assigned the fixed weight of 0.568 and the fixed weights of 0.844 and 0.336 to 0 to 5 and 6 to 12 age groups, respectively. The resulting reweighted data set contained exactly the same number of children age 0 to 5 and 6 to 12 as there were licensed spaces in the 2018/19 fiscal year.

Then, we compared the number of children in this reweighted data set who would be receiving subsidized child care with the actual number receiving a subsidy in 2018/19. The reweighted data set showed 12990 subsidized children o to 12 years compared to 6,445 children who actually received subsidized care. Accordingly, we adjusted the reweighted data set once again to ensure that our estimates of the number of children receiving subsidized care were equal to the actual number. For those families we

TABLE A2.2 Constant Factors Used to Reweight the SPSD/M Data Set of Families with Children O to 12 Years Claiming a CCED

Age Group of Children	No Child Care Subsidy	Any Child Care Subsidy
All children O to 5 years	0.844 × 1.124 = 0.948656	0.844 × 0.52 = 0.43888
All children 6 to 12 years	0.336 × 1.124 = 0.377664	0.336 × 0.52 = 0.17472
Some children O to 5 and 6 to 12	0.568 × 1.124 = 0.638432	0.568 × 0.52 = 0.29536

TABLE A2.3 A Comparison of the Number of Children by Age Group and Receiving a Subsidy Based on the Reweighted Data Set and the Actual Counts from the Annual Report

Comparison	Reweighted Data Set	2018/19 Annual Report	Variance
Number of Children			
0 to 5	23,530	24,805	-5.1%
6 to 12	14,123	12,654	+11.6%
Total	37,653	37,459	+0.5%
Number of Subsidized Children			
No Subsidy	30,970	31,014	-0.1%
Any Subsidy	6,683	6,445	+3.7%
Total	37,653	37,459	+0.5%

calculated as receiving a subsidy, we multiplied the reweighted data set by the constant factor of 0.496 and for those families we calculated as not receiving a subsidy, we multiplied the reweighted data set by the constant factor of 1.265. However, because more families with pre-school than school age children receive a subsidy, these weights resulted in fewer pre-school and more school age children in licensed care than spaces. Accordingly, we adjusted these second set of weights to reduce the discrepancy in the counts of children and spaces by age group while also minimizing the gap in the actual vs. the estimated number of children receiving subsidized care. The final set of weights we used to approximate the known characteristics of children receiving subsidized care are:

The final reweighted sample resulted in a reduced number of children aged 0 to 5 and a higher number of children aged 6 to 12 with a slight increase in the number with subsidized care. Table A2.3 compares the final counts of children by the two age groups and receiving a subsidy with the known counts from the Department of Families 2018/19 Annual Report.

Calculating Adjusted Disposable Family Income for the Purpose of Assessing the Affordability of Licensed Care

To properly assess the cost of licensed child care as a per cent of disposable family income, we adjusted that income by adding the reduction in taxes paid and the increase in Canada Child Benefits received as a result of claiming the Child Care Expense Deduction.

Calculating the *differences* in taxes paid and CCB received involved calculating taxes paid and CCB received under three scenarios: (1) taxable and net family income with no CCED deducted; (2) taxable and net family income with the current CCED deducted; (3) taxable and net family income with the affordable CCED deducted. The *differences* were then calculated as (2) - (1) and (3) - (1).

In calculating income taxes paid under each scenario, we first calculated the gross taxes using the tax tables for 2019 for both the federal and Manitoba governments. We then reduced the gross tax payable by the combined value of the following non-refundable tax credits to get the tax payable: Federal NRTCs — basic, married/married equivalent, earnings, EI and CPP deductions; Manitoba NRTCs — basic, married, Manitoba Family Tax Benefit.

Appendix 3

Calculating the Impact of the Change in Licensed Care Fees on the Employment Rates, Earnings and Taxes Paid by the Main Care giving Parent

IN HIS WORK on designing an affordable licensed child care program for Ontario, Gordon Cleveland was able to estimate the responsiveness of families to changes in the net price of licensed child care due to the adoption of affordable fees. Of particular interest to us was the labour force responsiveness of the main care giving parent — her willingness to enter into full- or part-time or any employment given changes in the net cost of licensed child care. His analysis of census and Statistics Canada surveys revealed that a 10 per cent *drop* in the net price of licensed child care would produce a 5.19 per cent *increase* in full-time employment, a 3.75 per cent *drop* in part-time employment and a 2.3 per cent *increase* in overall employment.

In order to use these measures of responsiveness (elasticities) to employment, we undertook the following steps.

- First, we created a data set of all families with any children under 6 years of age as this was the group Gordon Cleveland's elasticity estimates were based on. It was a subset of the 2019 SPSD/M data file described above in Appendix 2.
- 2. Then we estimated the probability of any employment (any earnings during the year), using a logistic regression model. Table A3.1 below

describes the results of the logistic regression analysis. The odds of employment were calculated by taking the exponent of the regression equation applied to the data. The probability was then calculated as Odds/(1+Odds).

- 3. We also estimated the earnings of parents based on an Ordinary Least Squares regression analysis and applied those estimates to the parents who did not have any employment during the year. Our revised 'earnings' variable used the predicted earnings for the care giving parent not employed and the actual earnings for the parent who was employed. Table A3.2 below presents the results of the OLS regression analysis.
- 4. Using the 'revised earnings' variable, we then calculated what the family's ELCC net family income would be. For those families whose main care giving parent was employed, the ELCC net family income remained the same. For those families whose main care giving parent was not employed, her predicted earnings, net of estimated taxes paid, CPP and EI deductions, was added to the ELCC net income amount.
- 5. We then calculated what the family's current and affordable licensed child care fees would be based on the family's revised ELCC net income using the formulas presented above.
- 6. In order to calculate the net values of the current and affordable licensed child care fees, we first had to estimate the main care giving parent's taxable income and the family's net family income as defined by the CRA. For those families where the main care giving parent was employed, the values remained the same. For the families where the care giving parent was not employed, we used her predicted earnings as the estimate of her taxable income and adjusted the CRA net family income amount by adding her predicted earnings to it.
- 7. We then repeated the steps described above on page 38 to calculate the federal and provincial taxes paid and CCB received under each of the three scenarios of no CCED claimed, the CCED claimed based on the current licensed fee formula and the CCED claimed under the affordable licensed fee formula.
- 8. We calculated the net price of licensed care for each scenario using the formula: Net price = gross price + change in taxes change in CCBs.

- 9. The *per cent change* in the net price of licensed care for the affordable care fee structure was calculated as: Affordable Care = (Net price of affordable care Net price of current care)/Net price of current care.
- 10. In turn, the per cent change in employment due to the per cent change in the net price of licensed care was calculated as the per cent change in price of care \times elasticity of any employment (=-0.230).
- 11. To obtain the estimate of the impact of this change in the employment rate on the total number of additional employed parents, we multiplied it by the estimated total number of parents with any children under 5 (N=65,265).
- 12. In turn, we multiplied the total number of additional parents employed by the average earnings, federal and provincial taxes paid under the affordable fee options to obtain the total impact on these factors.
- 13. However, in order to obtain the impact on Canada Child Benefits, we compared CCBs paid out assuming no increased employment and the current licensed care fees with CCBs paid out assuming increased employment with the affordable licensed care fees. The difference in CCBs times the total additional parents employed provided the estimate of the impact on CCBs.

TABLE A3.1 Logistic Regression Analysis of Any Employment During the Year

Variable	Coefficient (p-value)
Constant	-3.114 (0.000)
Years of Schooling	+0.213 (0.000)
Potential years in the Labour Market	+0.116 (0.000)
Potential years in the Labour Market**2	+0.017 (0.000)
Potential years in the Labour Market**3	-0.002 (0.000)
(Potential years in the Labour Market**4)/1000	+0.042 (0.000)
Single Parent Family	-0.181 (0.000)
Male Care Giving Parent	+1.269 (0.000)
No. of children O to 1 years	-0.626 (0.000)
No. of children 2 to 5 years	-0.491 (0.000)
No. of children 6 to 12 years	-0.875 (0.000)
No. of children O to 18 years	+0.477 (0.000)
Earnings of Non Care giving parent	+0.006 (0.000)
Weighted N = 63,265; 2*(LL(N) – LL(O)}=10,115; d.f. = 12; p=0.000.	
Sensitivity = 0.958; Specificity = 0.350; Total Correct = 0.800	

TABLE A3.2 Ordinary Least Squares Regression Analysis of Main Care Giving Parent's Annual Gross Earnings

Variable	Coefficient (p-value)
Constant	25,687.2 (0.000)
Years of Schooling	+1,316.90 (0.000)
Potential years in the Labour Market	-2,754.63 (0.000)
Potential years in the Labour Market**2	+255.67 (0.000)
Potential years in the Labour Market**3	-6.02 (0.000)
(Potential years in the Labour Market**4)/1000	+25.10 (0.000)
Two Parent Family	+14,096.13 (0.000)
Female Care Giving Parent	+11,432.4 (0.000)
No. of children O to 1 years	-2,289.46 (0.000)
No. of children 2 to 5 years	-3,956.24 (0.000)
No. of children 6 to 12 years	-4,733.83 (0.000)
No. of children O to 18 years	+817.25 (0.000)
Earnings of Non Care giving parent/1000	+198.49 (0.000)
Weighted N =46,747; F (12,46,734) = 1077.4 (p=0.000);	
Adjusted R-squared = 0.22	

Appendix 4

Methodology for Estimating the Additional Provincial Tax Revenue Generated by Drawing More Parents into Employment

AS NOTED ABOVE, Fortin, Godbout and St–Cerny used the demonstrated relationships between employment and GDP growth and GDP growth and government revenues to estimate the total impact of a rise in the employment rates of parents on government revenues. We have adapted that approach for our purposes here.

The first step was that of estimating the impact of employment growth on GDP growth. To do so, we used the identity presented in a study by Dachraoui et. al.¹⁹

GDP = (GDP/Hours Worked) × Average Annual Hours Worked × Number of Employed

Using Statistics Canada data on the provincial nominal GDP, average hours worked in the reference week and the number of employed adults in Manitoba, we calculated the average productivity of the Manitoba economy (GDP/Hours Worked) in 2019 as: [64.596 Billion/(33.3 hours × 52 weeks × 655,400 employed)] = 56.92 of GDP per hour worked.²⁰

We then used the 2019 data base on the main care giving parent with any children under 13 to obtain the average total hours worked per year (1,586) in order to calculate the average annual GDP produced by each employed

TABLE A4.1 Change in the Manitoba GDP produced by the Employment Effects of the Affordable Fee Structure

Option	\$ Change in GDP (\$M)	% change in GDP	Corrected % Change in GDP ⁱ
10% AR	\$425.89	+0.659%	+0.655%
7.5% AR	\$475.08	+0.735%	+0.730%
5% AR	\$524.27	+0.812%	+0.805%

i The correction factor is (%change/(1+%change) as noted in Fortin et. al. pg.13, footnote 21.

TABLE A4.2 Average Annual Growth Rates of the Provincial GDP and Provincial Own Source Revenues by Time Period

Time Period	Annual Per cent Change in Nominal GDP	Annual Per cent Change in Provincial Own Source Revenues	Ratio of Revenue Change to GDP Change
2009 to 2018	+3.82%	+4.03%	1.055
2013 to 2018	+3.35%	+3.73%	1.113
2014 to 2018	+3.35%	+3.32%	0.991
2015 to 2018	+3.64%	+3.50%	0.961

TABLE A4.3 Estimated Increase in Provincial Own-Source Revenues — Average of (2018/19+2019/20)

Option	Conversion Factor	GDP Growth	Total Own Source Revenues (\$M)	Total Change in Own Source Revenues (\$M)
10% AR	0.961	+0.655%	\$11,695	+\$73.6
7.5% AR	0.961	+0.730%	\$11,695	+\$82.0
5% AR	0.961	+0.805%	\$11,695	+\$90.5

parent = \$90,272. We then applied the adjustment factor of 0.956 used by Fortin et. al. to account for the lower than average productivity of parents of young children. The result is a GDP per employed parent of **\$86,300**.

To obtain an estimate of the change in total GDP produced by the increase in employment associated with each of the 3 options shown above in *Table* 14, we multiplied the employment change by the average GDP per parent and then expressed that as a per cent of the total GDP. Table A4.1 presents the results. In their paper, Fortin et. al. note that the standard assumption concerning tax revenues is that they increase more or less in proportion with GDP. Thus, a 1.42 per cent increase in GDP would lead to a similar increase in government revenues. We checked this assumption against the provincial record for the 9 fiscal years ending March 2020 and found varying growth rates depending on the time period. Table A4.2 presents that record.

For the purposes of this exercise, we have chosen to use the smallest ratio. Table A4.3 presents the results.

Endnotes

1 The sources include department annual reports and public use micro data files from Statistics Canada for 1989 and 2019.

2 The thresholds were updated annually between 1986 and 1991 but only twice since then - in 2007 and in 2012.

3 These figures come from Statistics Canada's CANSIM series. The CPI numbers are found in Table 181-00005 while the constant dollar amounts for families are found in Table 111-00191.

4 Prentice, S. (2000). A decade of decline: Regulated childcare in Manitoba, 1989–1999. Winnipeg: Canadian Centre for Policy Alternatives-MB.

5 Appendix 1 describes the data sources and methodology used to produce the results in Tables 2 and 3.

6 Note that nearly all families that receive a 'maximum' childcare subsidy must still pay \$2/day per child, meaning that virtually no parent — even the very lowest income — receives no-cost childcare.

7 School-age care is for three periods: before and after school, plus lunch, on a regular school day. On days when school is not in session (eg: summers, professional development days, etc.), parents pay \$20.80 per child

8 The MBM is Canada's official poverty line and is based on the cost of a prescribed bundle of goods and services priced annually within each province. The family income used to determine whether the family is low income allows for the following deductions from the after-tax income of the family – child care and out-of-pocket medical expenses, alimony payments, registered pension plan deductions and capital gains. Social policy groups like *Campaign 2000* are critical of it and prefer the use of the after-tax Low Income Measure. The MBM is used in this analysis because it is sensitive to local costs of living and is recognized by both the provincial and federal governments as the official poverty line.

9 See, Kathleen Flanagan and Jane Beach. January 2016. Manitoba Early Learning and Child Care Commission Final Report. Pg.48.

10 See, Gordon Cleveland, *Affordable For All: Making Licensed Child Care Affordable in Ontario Final Report*. Feb. 2018, pg. 118.

11 The natural logs of the income amounts are used to calculate the per cent of the maximum fee. This allows for a faster increase in the fee rate as net family income rises.

12 See, Pierre Fortin, Luc Godbout, Suzie St-Cerny. 2011. *Impact of Quebec's Universal Low-Fee Childcare Program on Female Labour Force Participation, Domestic Income and Government Budgets.* https://www.oise.utoronto.ca/atkinson/UserFiles/File/News/Fortin-Godbout-St_Cerny_eng.pdf

13 See, Gordon Cleveland, *Affordable For All: Making Licensed Child Care Affordable in Ontario Final Report.* Feb. 2018, pp. 199 to 203.

14 Information provided by the province in a FIPPA request for projects completed and licensed between 2016/17 and 2017/18.

15 This is defined as (age of parent – 6 – number of years of schooling)

16 The Early Learning and Child Care (ELCC) program definition of net family income excludes social assistance income and the Canada Child Benefit from total income and deducts the following items from total income – federal and provincial taxes paid, support payments made, CPP and EI employee contributions, union and professional dues.

17 Children up to the age of 16 are included because this is the age limit for the child care expense deduction.

18 Defined as any earnings during the calendar year.

19 See, Kais Dachraoui et. al. 2003. *Productivity and prosperity in the information age: a Canada*-*U.S. Comparison*. Statistics Canada, Cat. No. 11-624-MIE-N0.002

20 See, Cansim Data Sets #361-00222, #141-00033, #141-00393.



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