

#### Overview

This paper outlines our approach to measuring the impact of programs intended to keep children with their families and out of foster (out-of-home) care, in the Canadian context. In particular, we have explored research related to the short- and long-term benefits to individuals and society of children's remaining at home versus going into the foster care system (from here on we use the term 'out-of-home care' in place of 'foster care', as foster care represents a particular type of out-of-home care). Appendix III provides a partial bibliography of the studies that we used to inform our model<sup>1</sup>. Studies were selected based on their relevancy to different aspects of our model and availability of quantitative results. Results were weighted according to things like recency, geography, research design, and overall strength. These studies represent a fraction of the existing research literature on the benefits of avoiding out-of-home care, a comprehensive review of which would exceed the limits of our resources. We acknowledge this limitation and have done our best to provide as thorough a survey of the research as possible with the studies we have selected.

# The Social Return on Investment (SROI) to Out-of-Home Care Prevention Programs

### **Outcome Categories**

Our research finds several categories of outcomes connected to out-of-home care – see Table I. These could be considered the various costs of out-of-home care, or, reversely, possible benefits of avoiding out-of-home care. This is not intended as an exhaustive list of all possible outcomes connected to out-of-home care.

Table I – Out-of-Home Care Outcome Categories

Outcome Category	Description	
Out-of-Home Care System	The public cost of supporting children in out-of-home care.	
High School Completion	Lesser high school completion due to placement in out-of-home care.	
Employment Income	Lesser employment income in adulthood due to placement in out-of-home care.	
Social Assistance	Greater social assistance usage in adulthood due to placement in out-of-home care.	
Crime	Increased criminal activity in youth and adulthood due to placement in out-of- home care.	
Quality of Life	Reduced quality of life related to mental health during placement in out-of- home care.	
Teenage Parenthood	Increased teenage parenthood due to placement in out-of-home care.	

#### Social Return on Investment Model

<sup>&</sup>lt;sup>1</sup> We focus on studies that were chosen as relating specifically to out-of-home care, and exclude more general sources of data that inform multiple program models.

We use a Social Return on Investment methodology to measure the impact of charitable activities. The SROI is an estimate of the total dollar value of social benefits that are realized as a result of a charity's programs divided by the charity's costs. Costs include program, administration, and fundraising costs, as well as the cost of goods in kind used in charitable activities and amortization on assets. Data informing the costs side of the SROI equation come from a charity itself and generally are readily accessible. As such, we focus our research and this paper on the data informing the benefits side of the SROI equation.

The total dollar value of social benefits is the sum of the dollar values of often dozens of individual outcomes (or changes) brought about by a charity's programs. The calculation of the dollar value of a particular outcome requires knowledge of several pieces of information. We summarize these in Table II, providing examples in the context of out-of-home care.

Table II – Basic Components of Social Benefits Model

Model Component	Description	Example
Number of Clients	The total unique number of clients provided a service or involved in a program (i.e., the total number of clients where each client is counted only once).	The number of children whose parents are offered services to help them keep their children (e.g., 100).
Baseline Distribution	The percentage of clients in one of potentially multiple, mutually exclusive groups which differ in some important way, leading to different outcomes.	The percentage of children expected to spend time in foster or kinship care only, versus a combination of foster or kinship care and group homes, if placement in out-of-home care is not avoided (e.g., 87 and 13 percent) <sup>2</sup> .
Marginal Success Rate	The percentage of clients who achieve an outcome, net of the percentage of clients who would have achieved the outcome anyway, even without the program.	The percentage of children who avoid placement in out-of-home care, net of the percentage who would have avoided placement in out-of-home care anyway (e.g., 5 percentage points).
(Annual) Outcome Value	The annual, per person dollar value of a particular change that has happened due to a program or service.	The annual public cost per child of placement in foster or kinship care. (e.g., \$13,000).
Start and End Years	The number of years that must pass after completion of a program, 1) before the annual outcome value begins to take effect (start year), and 2) after which the annual outcome value is no longer considered (end year).	In the context of out-of-home care system costs, 1) the average number of years until placement in out-of-home care, and 2) the start year plus the number of years in out-of-home care. (e.g., 0 and 8).
(Annual) Drop-Off	The percentage of clients who initially achieve an outcome but lose it over time.	There is no drop-off value in the context of out-of-home care.

<sup>2</sup> 

<sup>&</sup>lt;sup>2</sup> In Canada, there are three broad categories of out-of-home care: foster care, kinship care (i.e., placement with a relative), and group homes or residential treatment, the latter which serve children with special needs, including those with behavioural problems or mental health concerns; see Leloux-Opmeer, H., Kuiper, C., Swaab, H., & Scholte, E. (2016). Characteristics of children in foster care, family-style group care, and residential care: A scoping review. *Journal of Child and Family Studies*, *25*, 2357-2371. Group homes are notable for being significantly more expensive than foster care or kinship care, so we distinguish in our model between placement in foster or kinship care versus group homes.

Baseline Attribution	The amount of credit a charity gets for a	The share of the total cost of an out-
	particular outcome, typically based on	of-home care prevention program
	its contribution to the total cost of a	borne by a focal charity (e.g., 100
	service or program.	percent).

In addition to the above, we consider various elements of outcome value depreciation over time. In this context, attribution decay accounts for the fact that, over time, other factors besides the initial intervention will contribute to a client's success, such that the original (baseline) attribution percentage should fall incrementally (we have chosen a rate of 10 percent per year). Similarly, time discounting is a standard adjustment in the field of economics to value outcomes that are achieved earlier in time more highly than those achieved later in time (we have chosen a discount rate of 3 percent per year). These adjustments apply to all programs.

#### **An Example SROI**

The total dollar value of social benefits of an out-of-home care prevention program will change based on several factors. We identify in Table III the variables affecting the out-of-home care social benefits model.

Table III - Out-of-Home Care Social Benefits Model Variables

Variable	Description	Example
Number of Clients	The number of children whose parents are helped to keep their children.	100
Geography	The province or territory wherein children reside, or Canada as a whole.	Canada
Gender	The gender of children (female or male <sup>3</sup> ).	Female
Age	The average age of children.	6
Attribution	The portion of program costs borne by the focal charity.	100 percent
Marginal Success Rate, Prevention of Out-of-Home Care Placement	The percentage of children who avoid placement in out-of-home care minus the percentage of children expected to have avoided placement in out-of-home care even without the program.	5 percentage points
Destination of Children in Out- of-Home Care	The percentage of children expected to spend time in foster or kinship care only, versus a combination of foster or kinship care and group homes, if placement in out-of-home care is not avoided	87 and 13 percent
Time in Out-of-Home Care	The expected average number of years in out-of-home care, among children placed in foster or kinship care only versus children placed in foster or kinship care and group homes.	8 and 13 years.

It is beyond the scope of this paper to identify all of the data that go into the impact model for an out-of-home care prevention program, as each outcome category involves several specific values for each of the components of our model, described in Table II. As such, a full account of each outcome would overwhelm this paper. Instead, based on the information in Table III, we present final estimates of social benefits of an example out-of-home care prevention program. In Appendix II we identify the types of data that inform the various components of our model. Some of these data are from program-specific research (e.g., the annual public cost per child in foster or kinship care, or a group home), while

<sup>&</sup>lt;sup>3</sup> Note that the binarization of this variable is for technical reasons, as we do not yet have research specific to non-binary individuals.

others are common to multiple program models (e.g., annual outcome values connected to high school completion).

As part of our process, we identify certain 'final' outcomes downstream from the outcome categories identified in earlier sections of this paper. We estimate the total social benefits of a program by summing the values of final outcomes. In cases where the same final outcomes are connected with multiple outcome categories, those with the greatest absolute values are included in the sum. This is to simplify the presentation of our findings and to account for potential double-counting in our model (e.g., overlapping values connected to different education outcomes). We present in Table IV the total social benefits of our example out-of-home care prevention program. In Appendix I, we present our formula for bringing together all of the various components of our approach to valuing a particular final outcome – for example, in the context of out-of-home care, lesser public costs connected to the out-of-home care system.

Table IV – Total Social Benefits, Example Out-of-Home Care Prevention Program

Outcome Category	Final Outcome	Total Social Benefits (\$)
Out-of-Home Care System	Public Systems, Out-of-Home Care	531,194
High School Completion		
Income	Cash on Hand, Income (Employment Income)	<del>9,437</del>
	Public Systems, Income Tax	<del>2,882</del>
Tuition	Cash on Hand, Cost Savings (Tuition)	(911)
Mortality	Mortality, All Causes	4,125
Quality of Life	Quality of Life, Mental Health	<del>517</del>
	Quality of Life, Physical Health	2,068
Health Care System	Public Systems, Health Care	135
Social Assistance	Public Systems, Social Assistance	<del>1,521</del>
Crime	Cash on Hand, Income (Employment Income)	<del>29</del>
	Crime Victim Costs	<del>1,107</del>
	Public Systems, Criminal Justice	<del>92</del>
	Public Systems, Income Tax	9
Employment Income	Cash on Hand, Income (Employment Income)	<del>10,689</del>
	Public Systems, Income Tax	<del>3,236</del>
Social Assistance	Public Systems, Social Assistance	Ө
Crime	Cash on Hand, Income (Employment Income)	<del>106</del>
	Crime Victim Costs	6,072
	Public Systems, Criminal Justice	647
	Public Systems, Income Tax	<del>32</del>
Quality of Life	Quality of Life, Mental Health	62,267
Teenage Parenthood		
High School Completion		
Income	Cash on Hand, Income (Employment Income)	<del>3,469</del>
	Public Systems, Income Tax	<del>1,059</del>
Tuition	Cash on Hand, Cost Savings (Tuition)	<del>(335)</del>
Mortality	Mortality, All Causes	<del>1,516</del>
Quality of Life	Quality of Life, Mental Health	<del>190</del>
	Quality of Life, Physical Health	<del>760</del>
Health Care System	Public Systems, Health Care	<del>50</del>
Social Assistance	Public Systems, Social Assistance	<del>559</del>
Crime	Cash on Hand, Income (Employment Income)	<del>11</del>
Cillic	Crime Victim Costs	<del>407</del>

34
3
<del>2,02</del> 4 <del>626</del>
<del>(561)</del>
<del>1,051</del>
<del>69</del> <del>277</del>
<del>35</del>
<del>210</del>
2,786
10,689
3,236 622,309

**Note:** Numbers with strikethrough format do not factor into the sum total social benefits. These represent values of particular final outcomes that are common to multiple outcome categories, where only the greatest absolute value of a particular outcome is included in the sum. Negative values are in parentheses.

As can be seen in Table IV, the total social benefits of our example out-of-home care prevention program is about \$600,000, or \$6,000 in short- and long-term benefits per child. The SROI to this example program would then be calculated by dividing the total social benefits by the total cost of the program. Thus, if the program costs \$6,000 per child, the SROI would be 1.0. If it costs \$1,200, the SROI would be 5.0. That is, \$5 of social value created for every \$1 of costs.

These estimates are based on a particular set of circumstances, and there is a wide range of possible results for out-of-home care prevention programs. As identified in Table III, our out-of-home care model involves several variables, differences in any one of which will affect the estimate of total social benefits. Depending on the unique circumstances of and data available from a charity, estimates of the impact of a program could vary considerably. In particular, the onus is on charities to present evidence showing that the effectiveness of their program matches or exceeds what we have found through our research. When charity data are not available, we make conservative assumptions about things like the effectiveness of a program, such that specific estimates of total social benefits may be smaller than those in this paper.

#### Appendix I – Charity Intelligence Outcome Valuation Formula

As it relates to the total social benefits of a charity program, we calculate the total dollar value of a particular outcome, for all clients who are candidate for it, using the following formula.

$$TV = \frac{\left(ba \times c \times bd \times msr \times ov \times \left((1-do) \times (1-ad)\right)^{-ys} \times \left(\left((1-do) \times (1-ad) \times (1-td)\right)^{ys} - \left((1-do) \times (1-ad) \times (1-td)\right)^{ye}\right)\right)}{1 - \left((1-do) \times (1-ad) \times (1-td)\right)}$$

#### where:

TV is the total value of a particular outcome, for all clients ba is baseline attribution c is the total number of clients candidate for a particular outcome bd is baseline distribution percentage msr is the marginal success rate ov is the annual per person value of an outcome do is drop-off ys is year start ye is year end ad is attribution decay td is time discounting

Based on our example out-of-home care prevention program, we estimate the total dollar value of lesser public costs connected to the out-of-home care system due to avoidance of out-of-home care. This value is a summation of three estimates, based on the destination of children in care – foster or kinship care only, or foster or kinship care and group homes – and, in the second case, the period in foster or kinship care versus group homes. Below, we identify the data informing the components of our model for valuing an outcome, for children expected to be placed exclusively in foster or kinship care. Our intention here is not to explain the derivation of these data, but just to illustrate how the formula for valuing a given outcome works.

Model Component	Value
Number of Clients	100
Baseline Distribution	87.5 percent
Marginal Success Rate	5.0 percentage points
(Annual) Outcome Value	\$13,024
Start Year	0.0
End Year	7.7
Drop-Off	0.0 percent
Baseline Attribution	100.0 percent
Attribution Decay	10.0 percent
Time Discounting	3.0 percent

Inputting these data into the formula, we get:

$$=\frac{\left(100.0\%\times100\times87.5\%\times5.0\%\times\$13,024\times\left((1-0.0\%)\times(1-10.0\%)\right)^{-0.0}\times\left(\left((1-0.0\%)\times(1-10.0\%)\times(1-3.0\%)\right)^{0.0}-\left((1-0.0\%)\times(1-10.0\%)\times(1-3.0\%)\right)^{7.7}\right)}{1-\left((1-0.0\%)\times(1-10.0\%)\times(1-3.0\%)\right)}$$

= \$290,389<sup>4</sup>

The comparable values for children expected to be placed in foster or kinship care and group homes, for the periods in foster or kinship care versus group homes, are \$41,300 and \$199,505. Summing these together, we get \$531,194 for the total value of lesser public costs connected to the out-of-home care system.

<sup>4</sup> The difference between this figure and what you would get by the formula is due to rounding in the provided data.

# Appendix II – Types of Data Informing Social Benefits Model Components

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Out-of-Home Care System	
Number of Clients	The number of children whose parents are helped to keep their children.
Baseline Distribution	• The distribution of children based on the type of care children are expected to be placed in – foster or kinship
	care only, or foster or kinship care and group homes.
Marginal Success Rate	<ul> <li>The difference in the percentage of children whose parents do and do not participate in an out-of-home care</li> </ul>
	prevention program who are placed in out-of-home care.
(Annual) Outcome Value	The annual public cost per child of foster or kinship care or a group home.
Start and End Years	The age at placement in foster or kinship care.
	The average age of clients.
	The number of years in foster or kinship care.
	The age at placement in group homes.
	The number of years in group homes
	The age at mandatory exit from out-of-home care.
(Annual) Drop-Off	There is no drop-off value in the context of out-of-home care.
Baseline Attribution	The charity's costs relative to the total cost of the program.
High School Completion <sup>5</sup>	
Number of Clients	<ul> <li>The number of children whose parents are helped to keep their children.</li> </ul>
Baseline Distribution	<ul> <li>The baseline distribution values associated with high school completion.</li> </ul>
Marginal Success Rate	The difference in the percentage of children whose parents do and do not participate in an out-of-home care
	prevention program who are placed in out-of-home care.
	<ul> <li>The difference in the percentage of children who are and are not placed in out-of-home care who complete high school.</li> </ul>
(Annual) Outcome Value	<ul> <li>The annual values per person of outcomes associated with high school completion.</li> </ul>
Start and End Years	<ul> <li>The start and end years of outcomes associated with high school completion.</li> </ul>
(Annual) Drop-Off	There is no drop-off value in the context of out-of-home care.
Baseline Attribution	The charity's costs relative to the total cost of the program.
Employment Income	
Number of Clients	<ul> <li>The number of children whose parents are helped to keep their children.</li> </ul>
Baseline Distribution	There is no baseline distribution value in the context of employment income.
Marginal Success Rate	<ul> <li>The difference in the percentage of children whose parents do and do not participate in an out-of-home care prevention program who are placed in out-of-home care.</li> </ul>

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<sup>&</sup>lt;sup>5</sup> For more information on educational attainment, see the Educational Support summary paper.

(Annual) Outcome Value	<ul> <li>The annual value per person of lesser employment income in adulthood due to placement in out-of-home care.</li> </ul>
Start and End Years	The age at adulthood.
start and Ena rears	The average age of clients.
	The age at retirement.
(Annual) Drop-Off	There is no drop-off value in the context of out-of-home care.
Baseline Attribution	The charity's costs relative to the total cost of the program.
Social Assistance	
Number of Clients	The number of children whose parents are helped to keep their children.
Baseline Distribution	There is no baseline distribution value in the context of social assistance.
Marginal Success Rate	The difference in the percentage of children whose parents do and do not participate in an out-of-home care
_	prevention program who are placed in out-of-home care.
(Annual) Outcome Value	• The annual public cost per person of greater social assistance usage in adulthood due to out-of-home care.
Start and End Years	The age at adulthood.
	The average age of clients.
	Life expectancy in the general population.
(Annual) Drop-Off	There is no drop-off value in the context of out-of-home care.
Baseline Attribution	<ul> <li>The charity's costs relative to the total cost of the program.</li> </ul>
Crime <sup>6</sup>	
Number of Clients	<ul> <li>The number of children whose parents are helped to keep their children.</li> </ul>
Baseline Distribution	There is no baseline distribution value in the context of crime.
Marginal Success Rate	<ul> <li>The difference in the percentage of children whose parents do and do not participate in an out-of-home care</li> </ul>
_	prevention program who are placed in out-of-home care.
	<ul> <li>The difference in the percentage of children who are and are not placed in out-of-home care who offend</li> </ul>
	criminally, in youth versus adulthood.
(Annual) Outcome Value	<ul> <li>The annual costs per person of criminal offending, in youth versus adulthood.</li> </ul>
Start and End Years	The age at onset of criminal activity.
	The average age of clients.
	The age at which youth crime becomes adult crime
	The age at cessation of criminal activity.
(Annual) Drop-Off	There is no drop-off value in the context of out-of-home care.
Baseline Attribution	The charity's costs relative to the total cost of the program.
Quality of Life	

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 $<sup>^{\</sup>rm 6}$  For more information on crime, see the Crime Prevention summary paper.

Number of Clients	The number of children whose parents are helped to keep their children.
Baseline Distribution	<ul> <li>The distribution of children based on the type of care children are expected to be placed in – foster or kinship care only, or foster or kinship care and group homes.</li> </ul>
Marginal Success Rate	• The difference in the percentage of children whose parents do and do not participate in an out-of-home care prevention program who are placed in out-of-home care.
(Annual) Outcome Value	<ul> <li>The annual value per person of worse quality of life related to mental health due to placement in out-of-home care.</li> </ul>
Start and End Years	The age at placement in out-of-home care.
	The average age of clients.
	The number of years in out-of-home care.
	The age at mandatory exit from out-of-home care.
(Annual) Drop-Off	There is no drop-off value in the context of out-of-home care.
Baseline Attribution	The charity's costs relative to the total cost of the program.
Teenage Parenthood <sup>7</sup>	
Number of Clients	<ul> <li>The number of children whose parents are helped to keep their children.</li> </ul>
Baseline Distribution	<ul> <li>The baseline distribution values associated with teenage parenthood.</li> </ul>
Marginal Success Rate	• The difference in the percentage of children whose parents do and do not participate in an out-of-home care prevention program who are placed in out-of-home care.
	<ul> <li>The difference in the percentage of children who are and are not placed in out-of-home care who become parents as teenagers.</li> </ul>
	<ul> <li>The marginal success rate values associated with teenage parenthood.</li> </ul>
(Annual) Outcome Value	<ul> <li>The annual values per person of outcomes associated with teenage parenthood.</li> </ul>
Start and End Years	<ul> <li>The start and end years of outcomes associated with teenage parenthood.</li> </ul>
(Annual) Drop-Off	There is no drop-off value in the context of out-of-home care.
Baseline Attribution	The charity's costs relative to the total cost of the program.

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<sup>&</sup>lt;sup>7</sup> For more information on teenage parenthood, see the Teenage Parenthood summary paper.

#### Appendix III – Bibliography of Studies Used to Inform Out-of-Home Care Model

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