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by Christopher A. Sarlo



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Executive summary

The annual cost of raising a child is important information—for its own sake and also for public policy purposes. Such estimates can be helpful to parents or prospective parents. It can also inform policies related to child benefits and possible parental child support obligations. This paper reviews prevailing approaches to the measurement of child costs and proposes budget based alternatives. The paper argues that there is no methodology or formula that can determine how much parents need to spend to raise children or, even, how much they actually do spend. What we do know is that parents at all income levels have successfully raised children. The objective of this paper is to find, at least, a base level of annual child costs that would need to be covered for the healthy development of the child.

The cost of raising a child is defined as the cash outlay “marginal” costs that parents spend when they add a child to their household. These costs specifically exclude any costs that were already in place prior to the child and would still be in place if the child leaves the household. The cost of raising a child is usefully distinguished from the costs involved in the decision to “have” a child, which necessarily includes the full opportunity cost of such a decision.

There are two broad strands of estimates of child costs. One strand is that group of estimates produced for popular consumption. The other strand includes estimates produced by academic economists and statisticians. While there is some overlap between the two strands, the former tends to be less technical and less reliant on economic theory. However, at the core, both strands attempt to extract relevant information from actual household expenditure data. This paper critically reviews both strands and finds that both rely heavily on heroic assumptions about how to extract the child’s portion of actual family expenditures.

Prevailing estimates of the cost of a child for Canada and the United States, currently, tend to be in the range of \$10,000 to \$15,000 per annum. These cost estimates have a distinct middle class bias and do not reflect the reality of raising children in lower income and newer immigrant households. There is a concern that such estimates send a clear message to lower income families that they really cannot afford children and, perhaps, shouldn't have any.

Examining the basic marginal costs necessary for the healthy development of a child, this paper finds that an annual outlay of \$3,000 to \$4,500 (depending on the community or region and the age of the child) would be sufficient. These cost estimates exclude any savings strategies such as home gardens, sewing and knitting clothing, couponing and taking advantage of sales, own repair and maintenance work in the home, etc. This cost range is for Canada in 2010 and is drawn from budget standard estimates by social agencies and experts with experience in this area. It can serve as a useful benchmark for child costs. Beyond this basic needs benchmark, however, parents will spend more on their child depending on such factors as after-tax income, perception of economic security, additional obligations, parenting style, marital situation, and time preference.

Introduction

What is the cost of a child? And how would we measure that? Is the amount that parents can expect to spend raising their child the same as the cost of that child? These and related questions often get confused in popular discourse.

The cost of having a child, which is to say, the cost to parents of making the decision to procreate is the “opportunity cost” of the decision.¹ This would include the expected sacrifices (or foregone benefits), time costs, as well as any adverse relationship changes that occur as a result of having a child—in addition, of course, to the actual costs associated with raising a child. In a contemporary context, those indirect costs (foregone benefits, lifestyle changes) can be quite substantial and may help explain the declining birth rates in many developed countries. The cost of raising a child, which is the direct cost to parents of covering child related expenses, is a component of the cost of having a child. It is that second component, the cost of raising a child, that is the subject of this paper.²

This paper critically examines prevailing approaches to measuring the cost of children. There are serious flaws with most of these approaches. Many estimates of the cost of children suggest that children are very expensive. This is simply not the case. An alternative approach, one that relies on expert judgement and a budget framework, is presented here. This alternative, it is

1 In economics, opportunity cost of a decision or action is the cost of the alternative that must be foregone in order to take the decision or action.

2 The distinction between the costs related to making a procreation decision and the costs connected to raising the child, once the decision has been made is, regrettably, infrequently drawn in the literature. Choosing to have a child must mean that parents anticipate a net benefit, (by their own subjective calculation)—the perceived benefits outweigh the opportunity costs. From then on, the foregone option is literally sunk costs and should not influence parental behaviour except insofar as the experience might affect the decision about having future children. Buchanan makes this general point in his discussion of choice-influencing and choice-influenced costs (1969: 44-48).

argued, will give us a more credible and useful estimate of the essential costs of children. The cost estimates in this paper are strikingly different than most of the estimates that receive popular, and policy, attention.

While prevailing approaches to measuring the cost of children are quite varied, they generally do not include indirect costs (foregone benefits, time costs, relationship costs, etc.). To reiterate, these indirect considerations will be important considerations in the decision to have children. Once parents have children, there is great value in focussing attention on the amount they can expect to spend to raise their child. Some economists refer to this as a “cash outlay” or cash flow approach. One useful way to think about this is to consider the following question: Once a child is in the family, what are parents likely to spend exclusively on that child and what will that amount depend on?

Before discussing these costs, it is useful to place the matter into the context of fertility decisions past and present. To the extent that the decision to have a child is planned (i.e., is based on a prior cost-benefit determination by parents), the costs and benefits have always been strongly influenced by cultural, religious, and familial pressures. In the distant past (and in more traditional societies), an important benefit of having children was their role as a pension plan for their elderly parents. This benefit has largely disappeared in the modern context and this can also help explain the decline in fertility. Parents are now left with the joy of raising children and influencing their healthy development.

Currently, the costs associated with raising children (i.e., the costs that parents can expect to spend that they would not have but for the child) are highly variable and depend on a myriad of factors. There may well be a lower bound cost (such as the cost of the child’s basic needs with all of the attendant subjectivity and class/cultural variation involved in such a determination) but there is surely no necessary pattern of costs beyond that. Discretionary spending on children will depend on parental income, parenting style, family history, level of economic security, other obligations and debts, marital situation, neighbourhood dynamics, and other factors. It is the case that parents successfully raise children at all income levels and, except for the basic costs of living, the cost of a child cannot be determined by a simple formula.

However, the question is important and does arise in a variety of policy contexts, and needs to be addressed somehow. It arises especially in any discussions of poverty, government assistance adequacy, and child support. It also arises more broadly in discussions of living standard comparisons between families of different sizes and compositions. If, for example, there is some question (or criticism) of the adequacy of government benefits flowing to families with children, an important part of the assessment of such adequacy must relate to the actual, or anticipated, costs of raising a child. For that reason, clarity relating to the question and its interpretation is important.

First, though, it is important to briefly review the prevailing measures and their problems.

The prevailing estimates of the cost of children

While there is no “official” cost of children or methodology to determine this very important calculation, there are approaches that have been used in the popular press and in the public policy sphere. In general, these methods have significant issues, some quite serious. They either violate fundamental economic principles (and common sense) or they have basic methodological flaws that make their use of questionable value. It is useful to separate out those prevailing estimates that are generated for popular consumption and those that are generated by academic economists.

Estimates used in the popular press

In recent years, public agencies and private corporations (for example, insurance companies) have attempted to determine the cost of a child. These estimates seem to be aimed at existing or new parents and receive substantial media coverage. They often purport to provide a realistic assessment of the cost of raising a child. Are these estimates good approximations and are they helpful?

For example, in 2011, the Canadian magazine *MoneySense* ran an article entitled “The real cost of raising kids.”³ The author of the article, Camilla Cornell, teamed up with a demographic consultant to develop estimates for Canada for 2011. The article also includes the latest cost estimates for the US, UK, Australia, and New Zealand. The article claims to be “the most comprehensive and accurate estimate of the average cost of raising a Canadian child to age 18 ever published” (Cornell, 2011: 1). This claim, and the fact that the

3 See: <http://www.moneysense.ca/2011/08/10/the-real-cost-of-raising-kids/2/>.

“cost of a child” has serious public policy implications, suggest that some scrutiny is warranted.

The article points out that a much cited 2004 calculation by Manitoba Agriculture estimated the cost of raising a child to age 18 to be about \$167,000. This estimate has not been updated and some of the components were specific to Winnipeg. The author’s objective was to use many of the same cost categories as the Manitoba calculations but to bring new and up-to-date information (for all of Canada) to determine the cost of children. “Our goal is nothing less than to become Canada’s new official source for the cost of raising kids”. After much research and number crunching, the *MoneySense* author came up with a final estimate for the cost of raising a child to age 19 in 2011: \$243,660, or about \$12,825 per year.

There are likely to be three different reactions by three different groups to this calculation: surprise, disbelief, and disappointment. It will surprise those who believe it should be much higher. After all, if one parent remains at home to raise the child (at least in the early years), their foregone net income could easily be several times the \$12,825 *MoneySense* estimate. Time spent with the child also has an opportunity cost for some parents which can be quite high. As well, the author calculated daycare costs at \$8,000 for a full year which may seem low to some readers, as well as the study’s author. As the author states, “I found that some of the costs we calculated were a little low” (Cornell, 2011: 6).

On the other hand there will be many who disbelieve this estimate, feeling that it is far too high. There are millions of Canadian parents, including countless immigrants, who, over the past several decades have successfully raised happy, healthy, and well-educated children on a fraction of this cost (inflation adjusted). The numbers simply won’t make any sense to parents of limited means who have actually raised children.

Finally, this determination will obviously be viewed with substantial disappointment by lower income prospective parents. Are lower income, prospective, parents excluded from having kids? They don’t have \$2,000 per year to spare let alone the almost \$13,000 “average cost.” In fairness, the author does include a lower estimate for the bottom one-third income earning couples. The cost of a child in that calculation equals \$175,400, or about \$9,230 per year. That’s not going to make a real difference if your income is, say, less than \$30,000. Does this not send a clear message to lower income couples that they should not have children because they cannot afford them? Does it not tell low income parents with children that they are short-changing their kids; that they are not good providers?

A closer look at the assumptions and distinctions made will help answer these questions.

The *MoneySense* estimate is the sum of the estimates of the individual components included in the research, following the same categories as

in the Manitoba Agriculture calculations. These individual estimates are largely based on Statistics Canada household spending surveys, with one item, food, based on a budget-based expert opinion, and one, daycare, based on an informal survey of parents. The use of the Statistics Canada surveys is based on the spending differential between couples with kids and couples without kids. For example, to determine clothing costs for children, “we compared spending on clothing for couples with children and for couples without children... The average difference per year was \$1,570, but we split that amount in half since the majority of these couples had two children” (Cornell, 2011: 3).

However, according to the 2009 Statistics Canada Household Spending Survey, the most recent survey available, more than 53% of couples with children have either one child or more than two children (Statistics Canada, 2009; calculations by author). So, while assuming two children for the purposes of a “back of the envelope” calculation is understandable, it is not satisfactory for a more precise exercise. If the author really felt that a spending differential calculation was the way to go, it is hard to understand why she did not simply take the more simple differential between the couple with one child and the couple with no child as their basis for comparison.

Second, and far more important, is the assumption that the cost of a child can be reliably estimated by taking the differential in spending between couples with children and couples without. Household spending patterns change, often substantially, when a couple has a child. The couple will spend their time and their money differently with the child than they did without. This is especially true in the middle and upper income households where there is less likely to be a tight budget constraining spending on necessities. For example, a couple may spend more time at home (with the child) than before and spend less on adult-oriented activities (bars, restaurants, travel, going to movies and concerts, etc.) in favour of more child-oriented spending. Even the couple’s own clothing spending may change to reflect the change in lifestyle that the household has undergone. The post-child spending composition of the household is likely to be quite different than the pre-child pattern because of all of the behavioural changes and substitutions. So, while it would make life much easier for economists, determining the cost of a child by simply taking the differential in spending will not be an accurate estimate of that cost. What you get with the differential is the “net effect” of spending pattern changes, substitutions, and the extra costs of the child.

Finally, we do know that household spending varies with income and age, and that income and age are correlated in a life cycle pattern that is more or less hill-shaped. When the author of “The real cost of raising kids” compares the spending of couples with children and those without, that comparison does not control for age or income. If, for example, couples with children were somewhat older than couples without children, then a higher level of average spending with the former could be capturing an age and income effect and not an accurate spending differential relating to the presence of a child.

Table 1 is helpful in illustrating, using a cross-sectional database, the possible changes in spending patterns for couples with and without children.⁴ An effort was made to get information for comparable couples. The comparison is certainly not perfect but it does attempt to control for income and age. The average income and average after-tax incomes are fairly close, with the one child household having about \$2,500 more in after-tax income. While the age range of the two groups is comparable, the average age of the childless couple is clearly lower.⁵ Finally, the income range has been selected to capture a significant portion of the middle of the income distribution. It would include households that have average to above average incomes and have either two or three persons.

Table 1 shows that, for reasonably comparable middle income households, couples with one child tend to spend less on alcohol and tobacco; less on education (presumably adult education); less on games of chance; less on restaurant food; and they tend to save less (where saving is defined as a residual). But, they tend to spend more on housing and household operation; more on food at stores; more on health care, and, of course, more on daycare. Other categories—clothing, transportation, and recreation—do not appear to be much changed, at least for this income and age grouping. However, we would expect changes in the nature and composition of these expenditure categories when a couple has a child even if the total amount is roughly the same.

Food is a good example of this. In 2009, couples without children and couples with one child spent about the same on food. While it is notable that overall expenditure on food remained the same, the composition of that food spending is different. The couple with one child group spent less on restaurants and more on food at grocery stores than their childless counterparts. This is not surprising. Couples with children (young children in particular) may, on average, go out less and prepare more food at home. The differential in the “food at stores” category, prorated on an annual basis, may be viewed, cautiously, as a proxy for the “food cost of a child.”⁶ This, however, would not generally be true for most spending categories.

4 A far better illustration of the kinds of changes that couples experience when they have children would be to use a longitudinal database. This is a database that follows the same households over time.

5 It is regrettable that Statistics Canada has chosen to record its age data in ranges rather than as actual numerical ages. Thus, it is not possible to provide the precise average age for each group but it is possible (by interpolating between the ranges) to say that couples with no kids have an average (reference person) age of approximately 31.7 compared to an average age for couples with children of about 34.

6 To the extent that food is viewed as an important necessity that has no reasonable substitutes and given that the families under consideration generally do not have a tight budget constraint, differential food expenditures may be close to what middle income families spend to feed their child. Families in this income range are less likely to need to reduce the quality of their food when they have another mouth to feed. In this case, in 2009, the

Table 1: Comparative expenditures—No child vs one child, 2009

Spending category	Couple, no children; Income range: \$75,000 to \$125,000; Age range of reference person: 25-44	Couple, one child; Income range: \$75,000 to \$125,000; Age range of reference person: 25-44
Average income	\$94,561	\$96,886
Average after-tax income	\$75,618	\$78,127
Food - all [F001]	\$8,107	\$7,998
Food at stores [F002]	\$5,277	\$6,430
Principal accommodation [G002]	\$17,830	\$20,509
Household operation [H001]	\$4,024	\$5,617
Child care [H011] - child is 0-4	\$7	\$2,156
Child care [H011] - child is 5-17	\$7	\$1,522
Household furnishing [I001]	\$2,806	\$3,005
Clothing [J001]	\$3,470	\$3,444
Transportation [K001]	\$13,073	\$13,537
Health care [L101]	\$1,681	\$1,936
Recreation [M101]	\$4,992	\$4,934
Education [M301]	\$831	\$475
Tobacco and Alcohol [N101]	\$1,709	\$1,228
Misc. expenditures [O101]	\$1,137	\$919
Games of chance [N201]	\$206	\$133
Charitable contributions [O405]	\$476	\$631
Total consumption [Totcucon]	\$62,368	\$66,350
Saving	\$13,250	\$11,777

Source: Statistics Canada, Survey of Household Spending (SHS), 2009, microdata file; calculations by author.

Consider clothing, for example. For the middle income (same age range) grouping examined here, there is virtually no difference in the two households' clothing expenditures. But surely this cannot mean that children's clothing costs are zero. What is likely happening here is that parents, on average, are spending less on clothing for themselves and then spending it on their child, with almost no net change overall. By looking just at the differential, we would be missing this story and could come to an erroneous conclusion that it costs nothing to clothe children.⁷ The article, incidentally, has "tacked on" an additional \$515 per year for children up to two years for diapers. This

extra food spending with the child (prorated annually) would be in the range of \$1,200 to \$1,500, not far off the expert estimate cited in the *MoneySense* article.

- 7 For many parents, it may seem that children cost little or nothing when they look at their overall spending. What they may not appreciate is that they have made important substitutions as their preferences and behaviour have changed as a result of the child. What economists, presumably, would like to measure is the extra (cash outlay) cost of that child

double counts diapers because they are already included for children to age 4 in the “children’s clothing” category.

So, in general, the component estimates of child costs determined by measuring the spending differential (with versus without children) is simply not a valid way to determine what parents actually spend on their children. The actual amount spent on children is effectively buried in the overall amounts that the household spends. Extracting the child’s portion would require questionable and often heroic assumptions about how families spend on their children. An alternative approach, such as the one that is considered later in this paper, might be helpful.

The *MoneySense* article determined three larger ticket components (food, housing, and daycare) somewhat differently from the other components. The food cost of a child is estimated using the Nutritious Food Basket, a Health Canada product used to monitor the cost of healthy eating in Canada. It does not purport to show what people actually spend on food but, rather, what they might expect to spend on healthy foods in various parts of the country. There is no claim made that this is a lower end cost of a nutritious food basket. Indeed, it appears to be suited to middle and upper income households. There is no assumption of thrift (no savings strategies, buying and stocking of sale items, no couponing, etc.).⁸ Nevertheless, this “budget standard” approach is a valid way to determine the food costs of a child. The resulting estimate seems reasonable for a child in a middle income household.

With housing, the author uses the differential cost of a one bedroom versus a two bedroom apartment in the city of Ottawa. While this methodology is similar to that used by Mark Lino (the author of the USDA reports on the cost of children) in his recent estimates of spending on children in the US⁹, it is a curious choice for an article that wishes to be Canada’s new official source for the cost of raising kids.

The majority of Canadian children live in owner-occupied homes. As we see in table 3, in 2009, more than 72% of Canadian children were being raised in houses, not in apartment units. The extra housing and household operation cost attributable to the child in the case of an owner occupied home is an open question and one that will be addressed later in the paper.

independent of parental sacrifices and substitutions. This paper will attempt to show that a budget approach appears to be the only feasible way to determine this.

8 There is abundant evidence that many households do use various strategies to reduce costs. There are many websites, blogs, and newsletters devoted to saving money on basic purchases. Many newspapers and television networks feature occasional special reports on the gains from thrift and the use of various strategies. And, many popular and scholarly books have been written about the ways in which lower income people can and do save. One classic is *All Our Kin* by anthropologist Carol Stack (1974) about the experiences of poor urban blacks and the sharing and exchanges within the networks of “kin.”

9 See: <http://www.cnpp.usda.gov/publications/Crc/crc2011.pdf>.

However, a lower income couple that cannot afford a house may or may not require additional space when they have an infant child. More space may be needed for toddlers and school age children if the family remains in an apartment. But, that family may, by then, be in a different financial situation. It is not clear what, if any, extra amount needs to be assigned for housing costs. Further, why is the differential between a one and two bedroom apartment an obvious selection? Why not the differential between a two bedroom and a three bedroom? Especially, since the author most often refers to families with two children. And, of course, why is the Ottawa differential the best, most representative, cost to choose? Applying the cost of \$2,064 across-the-board to all children in all situations may not accurately reflect the marginal cost of housing for a child.

Finally, the author draws child care cost estimates from an informal 2010 online survey conducted by the magazine *Today's Parent* (Hoffman, 2010). The survey asked parents to reveal the fees they paid for “licensed, centre-based care” and specifically excluded family home care and unlicensed care. Quebec, which has a heavily subsidized daycare system, was also excluded from the results. The estimates range from \$9,000 per year for infants (0-1 years) to just over \$5,000 for 11 year olds, and totalled \$75,500 for the 12 years of daycare costs. This cost was then applied as a representative average for all children. However, this is not even close to what middle income families actually spend for child care.¹⁰ As we see in table 1, the average annual amount for the middle income group where the reference person is between 25 and 44 is \$1,886 for one child, a little more for preschoolers and a little less for school-age children. More than half of these households report that they spend nothing on child care. There is a dramatic difference between what middle income families actually pay for child care and what the *MoneySense* experts suggest that they all need to pay.

The *MoneySense* article also includes estimates of the cost of children from the US, UK, Australia, and New Zealand. While the information on these other countries is not sourced, the numbers for the US and UK were easy to track down. In the case of the UK, the *MoneySense* estimates are drawn from the British insurance company Liverpool Victoria. They provide a “Cost of Raising Children” calculator on their website as an answer to the question: What are parents spending on their children? They state, without any citations, that they have done “research” into average annual cost of raising a child to age 21 and that cost ranged from 140,000 British pounds in 2003 to 222,000 in 2012. While the UK estimates include specific amounts for food,

¹⁰ The Statistics Canada survey from which the author draws most of her numbers just happens to have spending on child care as a separate category. So, unlike most other components of spending in which the child’s “portion” might be buried in a the family total, this item is clearly identifiable as spending on the child.

clothing, recreation, furniture, personal, and child care (like the *MoneySense* and Manitoba Agriculture list), they also include amounts for holidays and education—items not on the Canadian list. Education, the most costly item, is largely post-secondary education after age 18. Most importantly, the UK list completely excludes shelter costs, presumably because they believe that children live with their parents and shelter is therefore a cost properly attributed solely to parents. There is no sourcing of data and no methodology provided. However, it seems that the “cost” estimates are, in fact, average expenditures. Beyond that, it is impossible to tell exactly how the estimates were determined.

The US estimate in *MoneySense* comes from the 2010 United States Department of Agriculture (USDA) publication *Expenditures on Children by Families*. Here, there is a detailed document, by USDA researcher Mark Lino, providing the methodology behind the estimates for the US. As the title suggests, all of the estimates are based on expenditures by parents. The estimated amounts are limited to children from birth to age 17 (first 18 years of life). Spending on seven categories—clothing, child care and education, housing, food, health care, transportation, and miscellaneous—relevant to children was determined. Several methods were used to apportion of the expenditures attributed to the child. In the case of transportation, it was assumed, based on other government data, that 59% of all transportation expenses were “family related.” Of this amount, children were assigned a “cost” based on the per capita method (USDA, 2010: 8). In 2010, the overall USDA cost of a child to middle income parents is about US\$227,000. However, for a child born in 2010, parents in a middle income family can expect to spend (over time and accounting for inflation) about US\$286,860 on the child to age 17 (USDA, 2010).

The estimates cited by *MoneySense* for Australia and New Zealand again had no sourcing or references for the methodology. Nevertheless, based on an examination of the estimates for Canada, the UK, and the US, it is likely that there would be similar concerns with the numbers for the two countries. The fact is that the approaches used to measure a very interesting and important concept (the cost of a child) are quite varied, frequently make unrealistic and often heroic assumptions, have no common list of items included, and have estimates for child care that significantly differ from the amounts that parents, on average, actually pay. In the case of the USDA estimates, housing was determined to be the single largest cost of a child. Yet, this is an item that the UK estimate completely excludes as being a cost attributable to the child.

Parents seeking guidance in the popular press regarding child costs and how much they might expect to pay for raising their child will find very little of practical use. The estimates will seem unreasonably high. Indeed, calculations showing that children “cost” more than \$200,000 to raise (even before post-secondary education) are sufficiently high as to virtually exclude

lower income folks from ever being able to afford children. That is if we take these estimates seriously. This paper suggests that these costs found in the popular press are substantially inflated and based on flawed methodologies and assumptions that are unreasonable and unsupported.

This is not to suggest that raising children is costless. There will be inevitable expenses involved—food, clothing, recreation, personal care, and, in some cases, other costs that would not be incurred but for the child. Parents, at all income levels, in the real world adjust their overall patterns of time use and spending and incorporate their child into that. As a result of those adjustments and substitutions, children do not cost the small fortune that many “studies” claim. Children are affordable at almost all income levels. It would be regrettable if flawed estimates begin to influence fertility decisions.¹¹

Academic/scholarly attempts to determine the cost of a child

Economists were among the first to study the cost of a child, perhaps, because of the growing importance of this information for policy purposes. An important survey article by Martin Browning of McMaster University examined this issue in the context of household economic decisions. His 1992 paper provides some useful guidance about how to begin dealing with the question of the cost of children. He suggests that there are four distinct questions that relate to the cost of children and that, often, there is confusion in the literature about what exactly is being addressed. The four questions are:

1. The positive question: How do children affect the expenditure patterns of a household?
2. The needs question: How much income does a family with children need compared to a childless family?
3. The expenditure question: How much do parents actually spend on their children?
4. The iso-welfare question: How much income does a family with children require to be as well off as a family with no children?

The presence of a child in a previously childless household will have a significant impact on household spending patterns. As Browning points out, there is universal agreement on this. With a child, there is a substitution effect away from certain kinds of expenditures focussed on adults and towards

¹¹ Caplan (2011) makes a somewhat similar point that children are not nearly the burden on families that some experts would have us believe.

expenditures focussed on the child. This can be the result of two things (1) a possible change in parental preferences in favour of child-oriented goods and activities and/or (2) a change in relative prices making certain “adult” activities more expensive. In some cases, parents may not spend any more with the addition of a child but will spend the same total amount differently than they did before. If total spending does not change with the addition of a child, we could say, for some purposes, that the cost of a child is zero. However, for many purposes, this is not satisfactory.

In general, the direct cost of something (using the cash outlay approach discussed earlier) can be fairly said to be either what you would need to spend on it (as a separate expenditure) or what is actually (after the fact) spent on it. It explicitly excludes those other components of opportunity cost (foregone benefits, time, etc.) and focuses attention just on the direct cash outlays involved. And it ignores any sacrifices or substitutions made to afford the item.¹²

Most of the literature on the cost of children is focussed on one or more of the last three of Browning’s questions.

12 For example, a trip to Paris involves various new expenditures—airfare, hotels, restaurants, entertainment, and travel in the region—which would not have occurred but for the trip. This new spending is properly attributed to the trip even if it is partially funded by reductions in spending on other items. This spending can be assessed with a planned budget (before the trip) or with a review of spending after the fact, or both.

Critical examination of the prevailing approaches

The needs question

Discussion of this question and the “needs-based approach” is among the earliest attempts to deal with the cost of children. With this approach,

...a bundle of goods deemed necessary for the maintenance of a child is prescribed and then costed. This is then taken to be the cost of that child. The basis for the estimates of individual needs are usually expert nutritional and physiological assessments and hence are not based on the actual expenditures of any particular household (Browning, 1992: 1441).

Listing the needs of a child is a subjective exercise. While “experts” can bring an air of validity to the exercise, not all “experts” will concur about the composition and weightings of the items listed. On the positive side, proponents will argue that by removing the determination of the cost of a child from actual expenditures, which are often constrained by income, a standard or benchmark of minimum adequacy, independent of income, is set.

While prescriptive budgets for families with children (especially low income families) are in use, officially and unofficially, in many countries, the use of budget standards to measure the cost of children is most common in Australia. Following the work of Henderson (1949), several researchers including Lovering (1984), Saunders (1998), and Henman (2001, 2005) have developed and updated the estimates of children’s costs. The Social Policy Research Centre (SPRC) at the University of New South Wales currently has the most comprehensive set of budget standards for Australia. At the core of their approach is the view that material needs (rather than other aspects of

wellbeing) can be carefully defined and measured to achieve any particular standard of living.

Gray and Stanton (2010) point out that within the budget standard approaches, there are three broad methods.

The individualised method defines the costs of children to include expenditures that are entirely directed to the child (for example, clothing, education expenses, health care, and food). This method excludes shared household costs from the costs of children. Omitting all shared household items implicitly assumes that these items (furnishings, TV, auto, etc.) would be in the household even without the children.

The normative method defines the costs of children as the expenditures entirely directed to the child and a proportion of the cost of shared items. This method requires decisions to be made on the proportion of each shared item that should be attributed to children. For the difference method, the costs of children are estimated by calculating the difference in the budget standards for households of different size and composition” (Gray and Stanton, 2010: 103; emphasis added).

The difference method, unlike the first two methods, indirectly measures the cost of children by subtraction. One important concern here is that it ignores the fact that cost differences between households may reflect behavioural changes within the households as a result of the presence or absence of children. For example, if a family with one child is projected to spend \$3,000 more than a family with no child, it is not clear that the \$3,000 is the cost of the child. If parents, because of the impact of the child on their lives, spend their money differently than they would have if they had no child, then the cost of the child may be more or less than that calculated by the difference method.

The challenge for the normative approach is to establish in a valid manner the portion of shared costs attributable to children. This is very difficult to do. With the individualised method, the omission of all shared household items (goods and durables) runs the risk of understating the costs of children.

The advantage of budget standard approaches, in general, is that they are transparent and simple to develop and utilize. The disadvantage is that they are subjective. However, all of the approaches to measuring the cost of children have a healthy dose of subjectivity and arbitrary choices.

The expenditure question

The question of how much parents actually spend on their children is relevant to the matter of the cost of children. Indeed, it can be persuasively argued that this is the only relevant question that needs to be answered for most potential uses of child cost information. The cost of most items or activities within a household is most often measured by the actual expenditure on that item or activity.

However, the expenditure approach to determine the cost of a child, as it has been defined and applied in countless studies around the world, does not measure actual spending by parents on their children. What is invariably measured is the inferred spending that would be required with the addition of a child to maintain the same level of welfare (or living standard) as the parents had when they were childless. The inferred spending emerges from econometric techniques which use, typically, cross section survey data on consumption and some proxy for parental welfare. The expenditure question, as interpreted by the vast majority of researchers, is apparently the same as the iso-welfare question.

While it is difficult, and likely impossible, to reliably extract actual spending on children from existing survey data, it is regrettable that the question has been passed over completely in favour of another question. That other question, the iso-welfare question, essentially asks what compensation parents require to raise and care for a child in order to maintain their level of wellbeing. There has been almost no effort made to determine how much parents actually spend on their children. The expenditure approach is addressed further on in this paper.

Iso-welfare question

What additional amount of income (or spending) would leave a family with children with the same level of utility or “wellbeing” as a childless couple? Utility is a term that economists use to convey the satisfaction or enjoyment that people derive when they make choices—largely consumption choices. This question arises because of the need, especially in poverty and inequality research, to compare families with different compositions. Equivalence scales, discussed in more detail in Appendix B, are simply numbers expressing the ratio of required spending by families of a given size to the spending of a reference family—usually an adult couple—with the proviso that the utility (or wellbeing) of the adult couple does not change. For example, if a family of three persons (two adults and one child) need to spend 25% more than just two adults in order to maintain the same level of wellbeing, the equivalence scale for that family of three is 1.25.

A central difficulty with these methodologies is that utility or wellbeing cannot be directly observed. Utility is a very useful artifice to help us understand consumption behaviour and the demand for goods and services but formulating utility empirically is clearly problematic. Most often, researchers attempt to find a proxy that they believe is closely related to the actual utility or wellbeing of the household. Two different proxies have dominated the literature on the cost of children.

The Engel Method

German statistician Ernst Engel observed that as income rises, the proportion of a family's budget spent on food declines. This frequently tested hypothesis is often referred to as "Engel's Law." However, Engel went further and conjectured: "the proportion of the outgo used for food, other things equal, is the best measure of the material standard of living of the population" (Browning, 1992: 1443). Based on Engel's claim, made in 1857, about food proportion and material welfare, countless modern economists have used food proportions as a proxy for wellbeing in their estimations to determine the cost of children. Watts (1967), Espenshade (1984), and Deaton and Muellbauer (1986) were among the early users of this approach. The latter looked at both the Engel method and the Rothbarth method (discussed below) for comparison purposes and critically evaluated both. Since then there have been many other estimates of the cost of children using the Engel method. These estimates are most often displayed as an implicit cost reflected in equivalence scales. For example, the Lancaster and Ray (1998) Engel estimates show that one child adds 22% to the costs of a couple and the second child adds an additional 28%.

As a proxy for household wellbeing (even strictly material wellbeing) the Engel assumption using food shares is seriously flawed. There is simply no theoretical justification for food share being a reliable proxy for wellbeing and there is certainly no empirical evidence that would support such a connection. Yet studies using the Engel method have been influential in helping to frame child support schemes around the world and continue to be produced.¹³

The criticisms of leading researchers in the area of family and child costs is particularly interesting. Deaton and Muellbauer (1986), citing Nicholson (1976), argue persuasively that the Engel method clearly overestimates child costs in the process of "compensating" for the addition of the child based on food shares.¹⁴ They conclude that they "can construct no plausible defense for the belief that the food share correctly indicates welfare between households of different size, and we do not believe that credence should be given to estimates based on that belief" (Deaton and Muellbauer, 1986: 727). Browning's (1992) critique of the Engel method is equally sharp.

...the proportion of income spent on food or some other bundle of "necessities" (for example food, clothing, and shelter) is taken to be a welfare measure. Since families with children usually have higher budget shares for food than childless families this leads to an estimate of the cost of children that is positive. Beyond this, the method does not seem to have any virtue, except that it is easy to implement. Indeed, I

¹³ For example, Garvey, Murphy and Osikoya (2011).

¹⁴ Bettson (1990: 55-56) makes a similar point.

find it difficult to see why a questionable pronouncement on the relative welfare of populations should have been used so eagerly to make inter-household welfare judgements (Browning, 1992: 1443).

The Rothbarth Method

Erwin Rothbarth (1943) developed a method to estimate the cost of children using “adult goods” as a proxy for parental wellbeing. The assumption with this method is that spending on adult goods (items such as alcohol, tobacco, and adult clothing) should decline when children are added to a household as resources are diverted from adult goods towards goods that meet the needs of children.

The Rothbarth approach imputes the same welfare level to households that have the same level of consumption of adult goods. The Rothbarth method defines the costs of children as the reduction in income that would lead to the same reduction in expenditures on adult goods that the addition of a child to a family generates (Gray and Stanton, 2010: 106).

There are a number of concerns with the Rothbarth method. One is that the very presence of children may alter the parents tastes for adult goods. Parents are likely to alter their spending habits and their use of leisure time when they have children. They are also likely to consider the potential harmful effects of these goods on their children. The validity of the Rothbarth method depends fundamentally on parents maintaining the same tastes and spending habits as they had prior to having children (Gray and Stanton, 2010: 106).

Rogers (2005) has a more penetrating critique of the Rothbarth method. He deals, in particular with the claim (and by now the widely held belief) that the Rothbarth method is likely to underestimate spending on children. This is because the method “does not account for the possibility that the presence of children in a household may lead to a substitution from goods that must be shared with children towards goods consumed only (or mostly) by adults” (Rogers, 2005: 9; referencing Barnow, 1990). In such cases, the method will indicate that relatively low levels of additional income are needed to restore the levels of adult expenditures to that which would have prevailed in the absence of children (Rogers, 2005: 9).

“The required assumption in this claim is that adults behave in a ‘selfish’ manner—preferring to maintain pre-child levels of consumption of adult goods... It is this expected ‘selfish’ conduct that allegedly biases the statistical outcome of the Rothbarth methodology” (Rogers, 2005: 9). However, again quoting Barnow (1990), the Rothbarth method may actually overestimate the

cost of children if adults do not behave selfishly (i.e., they do tend to share goods with children). Rogers uses the example of shared goods such as living room and TV sets. The assumption with Rothbarth is that when parents realize they have to share these goods with children, they respond by spending more on adult goods. Rogers argues that there is no empirical study that supports this assumed behaviour. Rather, it is entirely plausible that parents will prefer to spend more time with their children with shared goods (games, TV, and other activities in the home). If that is the case, then the Rothbarth method will, in fact, overestimate child costs. This is because they derive a sense of wellbeing by sharing time and resources with their children.

Browning (1992) also questions the validity of the Rothbarth method:

Once again, I find it difficult to see why this [method] commands any widespread attention. In particular, when we take tobacco and alcohol as our adult only goods then we are in the rather odd position of equating welfare with consumption of these goods. Without further justification this is surely unacceptable.

It is fair to say that the majority of utility based (proxy) studies of the cost of children are some variant of Rothbarth.¹⁵ It is also true that many government policies using the cost of children, including the various child support guidelines, use studies based on the Rothbarth method as support for their estimates. Yet, as many experts in the area have pointed out, it is seriously flawed.

General critique of Iso-Welfare approaches

Newer utility based approaches, such as the “complete demand system” method, are subject to similar criticisms. Utility or wellbeing is not observable and proxies consisting of one good, or even a representative basket of goods, are unlikely to ever adequately reflect the dynamic nature of household wellbeing. And, in any case, “wellbeing” is not fully explained by the consumption of material things.

When parents have a child, the character of the household fundamentally changes and a large part of that is the change in the tastes and preferences of parents. Attempts to determine the cost of a child by finding how much additional income parents need to maintain their former level of wellbeing, even if that were possible to do, miss the point. It is likely that parental wellbeing increases with the addition of children even if their material standard of living declines. Parents have children because they want children. They anticipate that their overall level of wellbeing will be improved by having

15 See recent studies by Sienart (2008), Bargain and Donni (2009), and Betson (2010).

children and they are, therefore, likely to be quite willing to sacrifice some of their “adult goods” to have children. Once they have children they may not have the time or the inclination to go back to their former “living standard.”

The idea that the cost of a child can be reliably estimated by finding the amount of income necessary to return a couple to their former level of wellbeing seems to be a very odd way of determining costs. Would such a method be reasonable for other acquisitions made by a household? Could we say, for example, that the cost of a home is simply the amount of income required to return a couple back to their former (renting) level of wellbeing?¹⁶ Would that make sense? The cost of a home, as with any other item, is appropriately determined by either listing the anticipated direct spending on the various components (mortgage, utilities, insurance, maintenance, etc.) before the acquisition or listing the actual spending on each of the components after the fact. While children are not durable goods, the determination of their cost can draw profitably from those practices.¹⁷

To the extent that households make informed, rational decisions to have children, their planning will likely extend to the timing of the new member of the family. That is, parents may well plan to have their child when their own personal and financial situation is favourable. A rational household may delay procreating until, for example, their income and debt situation is better and/or until their housing situation is appropriate. This means, of course, that parents may well have been worse off before the child arrives and so income-compensation models of child costs may well involve a negative compensation ignoring the (also excluded) psychic benefits of the child.

In summary, there exists no reasonable or generally applicable proxy for parental wellbeing. There is no evidence that food share or adult goods, or any other item or bundle can appropriately reflect the utility or wellbeing of parents. However, even if parental wellbeing could be adequately proxied, there is no reason to believe that the cost of a child is reliably measured by finding the amount of income which would return the parents to their former (childless) level of wellbeing. Parents anticipate that their wellbeing will be improved by having children (i.e., that the benefits will outweigh any costs involved). Any income compensation to equalize wellbeing would be negative.

¹⁶ Colombino (2000: 81) makes this same point with respect to a family car.

¹⁷ A couple plans a week long vacation to Vegas. Would it be reasonable to measure the cost of the vacation by finding the income required to return the couple to their pre-trip level of well being? Would this be reasonable even if the level of wellbeing could be accurately determined? Or, would it be more reasonable to use the traditional method of determining the costs—add up the projected costs of the flight, hotels, gratuities, gambling, entertainment, shopping, and other relevant expenses?

If adults decide to have children and if they behave rationally, then the adults' wellbeing should be at least as much as when they were childless... All the methods for estimating expenditures on children [inclusive of Engel and Rothbarth] are based on the assumption that adding a child does not increase the wellbeing of the adults in the family (Rogers, 2005: 11; referencing Barnow, 1990).

What methods are reasonable?

The budget standard method should work well at the “needs” level (about which there is likely to be more consensus) but, perhaps, less well beyond that level. Above the “needs” level, anticipated spending on children is much less predictable. As the resources available to parents increases, spending on children’s “wants” becomes as much a matter of parental style and other influences as it is a matter of parental income.

The expenditure approach is potentially useful method of determining children’s cost after the fact; however, data limitations present significant challenges to the success of this approach. Household spending databases, understandably, do not fully separate out the spending on each member of the household. The consumption of a number of household purchases (food, for example) is shared and some reasonable way must be found to extract children’s costs. It is not clear that existing data will allow this without questionable assumptions.

How do parents spend on their children?

It is useful to step back and think carefully about how parents, in general, spend on their children. We know that, for generations, lower income parents have raised children successfully on very limited means. While children in these situations are often deprived of some amenities that most others have, they may not necessarily lack any basic need. Parents may try to provide amenities to their children but may not always be able to do so due to a pressing budget constraint. The basic needs of a child can be regarded as the first priority for parents, as well as a legal responsibility, and more can be spent as incomes and available resources increase.

Whether (and how) additional resources are spent on children will depend on a number of considerations. Certainly the level of income is an important factor but so is the perception of economic security. Concerns about the economic climate, pending layoffs, personal health issues, marriage instability, debt issues, and other obligations all play a part in the ability and willingness to spend money on oneself and one's children. As well, the tastes and style of parenting will be a consideration. More thrifty and economically conservative parents are likely to spend less, favouring future consumption. They may also have expectations that their children do age-appropriate chores around the home and that their teenaged children get part-time work to help pay for some of their own needs. More liberal parents are likely to take a different approach to spending on their children. These and other possible considerations (age of the children—older children generally cost more than younger children—social pressures, outside resources, etc.) will play a role in determining how parents spend on their children.

If we look at the typical life cycle pattern of family income, we observe that over time income peaks somewhere in the 45-60 (years) range, depending on the nature of the occupation and the health of the income earner. It is also typical that the first child is born to younger parents who are at the lower

end of their expected lifetime income profile. As children get older, family income typically increases, which helps fund the expected increase in costs.

Far reaching social changes have importantly impacted families and the resources available to help with the costs of children. Substantial increases in female participation in the labour force since the 1960s resulted in many more dual earner families. In addition, new government programs assisting families with children (especially lower income families) have been developed and enhanced in the last several decades. Finally, the decline in fertility has greatly impacted the average size of families to the point where larger families with three or more children are increasingly rare in western societies.

While these changes suggest that there are more resources available to raise fewer children, there are other important social and economic changes that work to offset these improvements. The increase in the prevalence of divorce in recent decades has substantially increased costs (and reduced resources in many cases) to divorced parents resulting in less available for the children of divorced parents. As well, more recently, there has been an increase in economic insecurity in many developed nations and this changes the willingness of parents to spend in general, and spend on their children, in particular. For all of these reasons, having reliable estimates of the cost of raising children is of great value.

Independent of broader socio-economic changes, however, is the dynamics of intra-household spending patterns when a new child arrives. Indeed, in many cases, the change in spending as well as the change in lifestyle and attitude occurs well before the actual birth of a child. It is likely that parents will have thought about and made arrangements for such things as: the space the child will occupy; the additional durable items (crib, car seat, bassinet, playpen, mobile, toys, rattles, bottles, etc.); and the additional household supplies (diapers, cleaners, blankets, ointments, medications, baby clothing, bibs, etc.). These additional up-front and ongoing costs of a newborn will be met either through reductions in existing parental spending or new spending drawn from a variety of potential sources (including market earnings, child benefits from government programs, help from family and friends, and possibly savings).

The diversion of parental spending to spending on the child is of particular interest here. It is likely that parents neither have the time or the inclination to continue their pre-child lifestyle once the child arrives. A child fundamentally changes the nature of the household and the behaviour of parents in much the same way as marriage changes the life of a single person. The substitutions that occur—out of adult only goods and into child oriented spending—are natural manifestations of this change in lifestyle. In some cases, parents may not even spend more in total after the child arrives but they do spend differently. Whether they spend more, less, or the same amount is not the point. The cost of raising the child, which is the direct spending on the

child that would not have occurred in the absence of the child, is imbedded somewhere in the overall household expenditures. At this point, there does not appear to be any reliable way to extract these costs from household spending databases.

This discussion of how parents spend on their children utilizes existing theories in economics. The life cycle theory of spending and the theory of consumption are particularly relevant. Theory suggests (and is abundantly supported by empirical evidence) that there exists a core level of necessary consumption that prevails even if income falls to zero. This would be consistent with the idea that there exists a minimum level of spending that must occur for the healthy development of the child, regardless of the level of parental income.¹⁸ This minimum is both a moral and legal obligation of parents.

The “basic needs” cost can only be determined using a budget standard approach. Clearly, any standard will be subjective and there will be debate at the margin about the composition of the basket of goods to be costed. While the nature and composition of said basket will draw on scientific evidence about children’s physical needs, the basket clearly has a subjective aspect in the sense that it suggests what children should have, at least, for normal healthy development using current standards of acceptability.

For this reason, the “needs” cost of a child can never be estimated to the dollar. Different experts will have somewhat different conceptions about what is necessary and what standard or level would be considered acceptable. One might expect these differences to be marginal as long as the definition of this core, essential spending on the child is clear.

While the basic needs level will be determined at market prices, it is clear that non-market and in-kind goods can reduce the money cost of the prescribed basket. For parents who are able to employ such activities as home gardens, sewing and knitting of clothing, couponing and taking advantage of sales, own repair and maintenance work in the home, and a myriad of other savings strategies, the use of parental time in these and similar ways helps reduce the money cost of the child. Low-income and immigrant families have used (and continue to use) these and other strategies to help lower the money cost of raising their children.

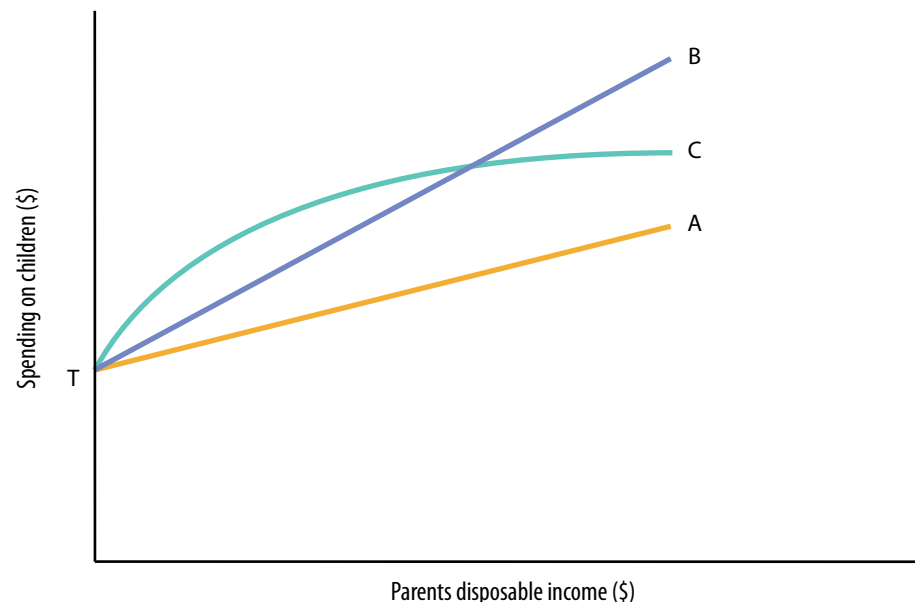
Clearly, there are sacrifices made by parents both in terms of substituted consumption and time use in order to successfully raise their children. These sacrifices are made willingly because parents have made the choice to have children and they made the choice because they anticipate that their wellbeing, after all costs have been considered, will improve. And, despite all of the information available (including from relatives who already have children) couples continue to choose to have children in every society.

¹⁸ This would include expenditures required for the healthy development at an acceptable standard within the society that the child is raised in.

The theory of spending on children begins, then, with a core level of spending that occurs even if income falls to zero—analogous to the consumption function. This core spending, connected to the child's basic needs, will vary somewhat from society to society but will include additional food, clothing, and other necessary direct spending. For parents, there is little discretion with this area of spending aside from the possibility of reducing money costs by investing their time on savings strategies. However, because not all parents are in a position to reduce money costs in that way, only actual market prices should be used to determine the expected costs of those needs. When parental disposable income increases from this starting point, spending on children is likely to increase but in a much less predictable manner. Discretionary spending on children will depend on the variety of considerations discussed above.

The following graph illustrates this general idea of a two component spending pattern—basic needs and a more discretionary component related to parental disposable income.

Figure 1: Spending on children



T is the amount that, in a real sense, must be spent on a child to cover the child's basic needs. It need not be all spending by the parents. Some could be covered by others (friends, relatives, private charitable agencies, and government programs) but it can be thought of as the irreducible core of basic spending on a child that would be under the parent's responsibility even if they are not directly covering the entire amount themselves. In addition to that core spending, parents are likely to spend amounts on their child depending on a) their disposable income and b) their style of parenting (liberal, conservative,

etc.), and c) other factors such as their economic security, social pressures, marital and health situation, and other obligations. For example, the spending line labelled A assumes a linear pattern of spending on children beyond the basic needs amount T. The relative flatness of the slope of line A is intended to reflect a more “conservative” approach to budgeting for children. Parents in this situation may simply decide to spend a greater proportion on themselves or save more, perhaps with future educational needs of their children in mind. The spending line labelled B also assumes a linear spending pattern beyond the basic needs amount and reflects a more liberal approach to spending on children. It is also possible, however, that the rate of additional spending on children beyond the basic needs level will actually decline as parental income rises. Line C displays this pattern. In this case, the “propensity” to spend on children declines as disposable income increases. It is important to note, however, that whatever the pattern of spending beyond the basic needs level, overall spending on children declines as a proportion of parent’s disposable income as income increases. This theory is very similar to (and drawn from) the theory of consumption in economics.

What about the time costs of children?

Raising children involves a substantial time investment by parents. Some authors (Bradbury, 2005; Craig and Bittman, 2003 and 2005) have argued that, because parents time has alternate uses it should count as part of the cost of children. While this suggestion will undoubtedly find favour with some researchers (and parents), it would be a mistake to count parental time as a part of the cost of raising children. Having said that, it certainly would (and should) be a consideration in the decision by parents to have a child and would be part of the employment (work-leisure) decision of the parents.

In the process of making the decision to have a child, parents will understand that the decision comes with a substantial time commitment. While all time spent with a child is of value, of particular importance is the time spent modelling behaviour, teaching and inspiring, and instilling important moral and practical lessons.¹⁹ It can be argued that this time is every bit as important to the child’s healthy development as the provision of physiological needs. Parents willingly make that decision because they expect that the child, and time spent with their child, produces net benefits to the parents. However, to count the time with your child as a cost of the child is as absurd as counting the cost of your time spent in your home or your car as part of the cost of those items. A home requires a substantial time commitment (yard

¹⁹ Economist Bryan Caplan (2011) has suggested that time spent with children in this way is, at best, of temporary value to children. Based on twin and adoption studies, he has argued that time spent with children has almost no effect on their outcomes.

and garden work, maintenance and repairs, snow removal, as well as renovations and improvements) that renters do not typically encounter. The time spent and the money value of that time is not seriously considered as part of the cost of the home. Similarly, it would not be appropriate to include time spent with children as part of the cost of a child. That time is best considered, broadly, as part of leisure (non-work) time.²⁰

In reviewing the substantial literature on the cost of children, it is hard to escape the conclusion that some researchers regard children as a parents' contribution to society (rather than as a strictly private decision that improves their own wellbeing). Children are thus a burden that parents somehow deserve compensation for. This perspective "children as burdens" finds common ground with political ideas that suggest that procreation is more a public, as opposed to a private, good.

What is included in the cost of a child?

If the cost of a child is the direct expenditures (money) on that child that would not have occurred had the child not been part of the family and if we measure that cost (in the first instance) by listing (and pricing) a basket of necessary goods at the basic level, what items should be included? There is little doubt that any additional food, supplies and health needs, personal needs, educational/learning items, furnishings and clothing for a child should be included. What about shared goods like TVs, computers, appliances, most other furnishings, family car, and the home itself? It would be hard to make a case that these are part of the costs of a child especially if they were in place before the child arrives and will be after the child leaves. The measurement of the cost of children is designed to capture the costs to the parents that are due to the child; costs that the parents would not have if the child were not there. Most of the shared goods in the household are properly attributed to the parents. The exception to this would be if the shared good was either not going to be in the household without the child or if some change in the nature of the shared good was required because of the child. It is useful to consider several examples to illustrate.

Shelter costs for a child

Children live in the home of their parents. In Canada, the majority of parents and their children dwell in owner occupied housing (see table 3). For many home owners, the home is as much an investment as it is a place to live. If, at

20 A recent paper by Ekert-Jaffe and Grossbard (2011) examines children's time costs from this perspective. They estimate, based on data from France, that on average, the time cost of a three year old child is about 2 hours per day in foregone leisure for both parents.

some point, parents require a larger home to suit a change in their lifestyle, that larger home is, at the same time, a bigger investment with potentially larger returns. There may be other times when it is convenient for them to move to a smaller home. None of these changes and none of the associated costs can be reasonably attributed to the child.²¹ However, parents who rent are not building equity in a real asset. So, there may be circumstances in which a required change in rental accommodation may be fairly attributed to the child. For example, a low income couple living in a one bedroom apartment may require a two bedroom apartment to accommodate a child. While not all two bedroom apartments are more expensive than one bedroom apartments, on average they are and using the “needs” approach to estimate the costs of a child, this average would likely be used. Therefore, some marginal cost of accommodation could be attributed as a cost of the child in some cases. It would be incorrect, however, to assign a housing cost for all children across the board.

Transportation costs for a child

For owners of a vehicle, the car they choose is one that will be suited to their lifestyle. If the couple are parents, they will be able to accommodate up to three children with a standard vehicle. The family vehicle will presumably find more use for child-oriented and family activities and less for strictly adult activities, once there are children. The change from a couples lifestyle to a parents lifestyle may involve somewhat different costs for an owned vehicle, however, any such differential is properly attributed to parents (and their new lifestyle) and would not be a cost of a child per se.²² In the case of public transportation and school bus, there may be some costs but, again, a singular cost should not be applied to all children across-the-board.

Other shared goods

Most other shared goods, like TVs, cable, phone and internet service, home furnishings and appliances, and a family computer, are costs associated with the parents

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- 21 As an example, a couple might purchase a three bedroom home in anticipation of raising two children. The financial costs (and the benefits) of that home are properly attributed to the parents. If, after one of the two children leaves the home, and the parents move (with the remaining child) to a less expensive two bedroom home, negative housing costs should not be attributed to the remaining child. All of the costs are attached to the parents.
- 22 For example and analogously, the use of an owned auto changes when the owner acquires a owner-occupied home (rather than renting). There will be much more “home related” use of the auto (for home maintenance supplies, gardening, home decor, appliance shopping, etc.). Changes in lifestyle impact the use pattern of some durable goods but not cost attribution.

and their lifestyle and are not attributable to children. An exception would be where a student in high school or college needs their own computer for educational purposes. There is also the possibility that some shared goods may endure more wear and tear because of the children and may have to be replaced somewhat more frequently. While a case could be made that such additional costs are directly a result of children, it is difficult to determine such costs before the fact. In the process of framing a “needs” approach using a budget standard, these costs can be accounted for based on evidence of average replacement rates in families with children.

Children with disabilities and special needs

Costs for children with medical/physical conditions can be quite high and can necessitate greater adjustments for parents. The discussion of the cost of children does not include special needs costs as the vast majority of children are not in this situation.

A profile of Canadian children, 2009

Before examining empirical estimates of the costs of children, it is useful to look at the current situation for Canada children—the kinds of families they are raised in, the levels of incomes, and the range of accommodations that they dwell in. The following profile provides important background information.²³

Table 2 shows the types of families that children are raised in along with the age grouping and average incomes.²⁴ The profile reveals that the majority (73%) of

23 This information is drawn from the Household Spending Survey, 2009. Statistics Canada conducts this (voluntary) survey amongst a random sample of over 16,000 households. A personal interview is conducted with the reference person of the household and a series of questions about how much was spent in the most recent year on various items are asked and responses recorded. There is some editing done to remove obvious errors. However, it is important that users are aware that the accuracy of the data is based on the respondents ability to recall their expenditures on a large number of items. In addition, Statistics Canada acknowledges that there are potentially a number of sources of errors including coverage errors, non-response errors, response errors, capture errors, coding errors, and other types of processing errors. See: <http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SurvId=3508&SurvVer=1&Instald=15492&InstaVer=11&SDDS=3508&lang=en&db=imdb&adm=8&dis=2>.

24 There appears to be a modest mismatch between the survey results and the census numbers. Part of the discrepancy is due to the different definition of “child” The survey categorizes children’s ages as follows: 0-4 and 5-17. The survey also reports on youth 18-24, some of whom still live with their parents. Since there is no other breakdown, the definition of child in this study corresponds to people between the ages 0-17. There were 6.6 million children in 2009 according to the survey. The corresponding Statistics Canada estimate for 2012 based on the census is that Canada has 7.8 million children between the ages 0-19. (See Statistics Canada, Cansim Table 051-0001, <http://www.statcan.gc.ca/pub/85-002-x/2010001/definitions-eng.htm>).

children, defined as dependents under the age of 18, are school-age. As well, only a small minority of children (less than 10%) are in single parent households at the time of the survey.²⁵ Finally, average income information suggests that income is not likely to be a constraint on the provision of necessities for most children. Clearly, however, there will be some families at the lower end of the income distribution for whom income will be a serious constraint. We will look at that issue in Appendix B (Poor Families with Children). Table 2 is important in establishing basic demographic and income information for families with children in 2009.

Table 2: Family type and average income

Numbers				
Type of family	Preschool children (0-4)	School age children	All children	Average income (\$)
Couple with single child	1,445,026	3,682,115	5,127,141	\$109,412
Single parent families	92,361	545,981	638,342	\$53,607
Other families with children	221,218	644,778	865,996	\$84,311
Totals	1,758,605	4,872,874	6,631,479	\$96,057
Percentages				
Type of family	Preschool children (0-4)	School age children (5-17)	All children	Average income (\$)
Couple with single child	21.79%	55.52%	77.32%	\$109,412
Single parent families	1.39%	8.23%	9.63%	\$53,607
Other families with children	3.34%	9.72%	13.06%	\$84,311
Totals	26.52%	73.48%	100.00%	\$96,057

Note: According to the above database, there are approximately 2,800 “children” in 2009 who do not live in families but rather live alone or as part of a couple. Because the focus of this study is on the cost of a child to a family (to parents, specifically), these children are excluded in the calculations in Table 2 and subsequent tables.

Source: Statistics Canada, Survey of Household Expenditures, 2009; public use microdata file calculations by author.

- 25 Statistics Canada defines a lone-parent family as “a mother or a father, with no spouse or common law partner present, living in a dwelling with one or more children.” The SHS survey specifically excludes any additional person living in the dwelling and is, as mentioned, limited to children under 18 for the purpose of this study. As of the latest census data, approximately 16% of all census families are lone-parent families and approximately 22% of all “children” live in lone-parent families (see: <http://www12.statcan.gc.ca/census-recensement/2006/as-sa/97-553/figures/c2-eng.cfm>). However, this includes a substantial number of adult (over 18) children living with their parent (see: <http://www12.statcan.gc.ca/census-recensement/2011/as-sa/98-312-x/2011001/fig/fig3-eng.cfm>: figure 3). The data therefore are not directly comparable. Clearly, many more children will live in single parent families at some point. The reality of modern life is that “families” are very fluid with people “decoupling” and “re-coupling” and children having to tag along into reconstituted units.

Table 3 focuses attention on the type of housing that children and their families occupy. In 2009, the survey found that about 72.5% of Canadian children lived in owned homes and about 27.5% lived in rented accommodation.²⁶ Of families with children occupying rented accommodation, the great majority (78%) had a maximum of two children and average rents of about \$10,000 or below for the year. Average rents appear to be fairly similar across family sizes. Average incomes are also fairly similar, especially when the age of the children is considered. This may suggest that renters are generally able to find “size-appropriate” accommodation in the same general price range. As well, the average number of bedrooms appeared to be suitable for the size of family. This data appears to broadly support the earlier discussion about the exclusion of shelter costs from the determination of the cost of children—at least on average.

Finally, it is instructive to look back at table 1 as part of this profile. It compares the spending of middle income (couple) households with and without a child. It is not possible to extract the amount that parents actually spend on the child from this table because many of the spending items are “shared” goods and there is no easy way to divide up between family members, however, it does serve as evidence of the net impact of the child after all adjustments, substitutions, and additional cash outlays for parents with middle range incomes where budget constraints would not normally be significant. Imbedded somewhere in these numbers is the amount that parents, on average, spend on a child. The child’s share (if any) is buried in the actual totals for each of the components. The spending differential between the childless couple and the couple with one child is not a valid way to determine the spending on the child.

As already discussed, much effort has been expended to try to extract the children’s expenditures from these totals without success. It does not appear that there is any credible way to reveal the portion of family spending that is attributable to a child. Most often, heroic assumptions are required to draw out an estimate of the child’s share. However, even if average spending on a child could be reliably determined, this is still not a valid estimate of the “cost of a child.” Conceptually, there is an important difference between what parents actually spend on a child and what additional costs they will need to spend for the healthy development of a child. It is the premise of this paper that the budget standard approach is the only reliable method to uncover the cost of a child.

26 According to data drawn from the 2006 census, about 31% of all Canadian households (with and without children) were renters in 2005. See: <http://www.cbc.ca/news/story/2008/06/04/homes-census.html>.

Table 3 : Household tenure and housing cost

Tenure of families with children	Number of Households	Percent	Average cost (\$)	Pre-school (0-4)	School Age (5-17)	Total	Percent
Owned home without mortgage	624,615	17.06%	\$10,224	194,526	866,998	1,061,524	16.01%
Owned home with mortgage	2,033,654	55.55%	\$23,072	1,018,494	2,724,469	3,742,963	56.44%
Rented or occupied rent-free	1,002,641	27.39%	\$11,372	545,585	1,281,407	1,826,992	27.55%
Totals:	3,660,910	100.0%		1,758,605	4,872,874	6,631,479	100.0%
Renters	Number of Households	Percent	Average Rent (\$)	Average Income (\$)	Number of bedrooms		
One child (0-4)	146,559	14.62%	\$9,348	\$57,843	2.24		
One child (5-17)	280,018	27.93%	\$8,530	\$52,742	2.56		
Two children, both 0-4	67,218	6.70%	\$9,505	\$43,488	2.52		
Two children, one of each	93,190	9.29%	\$10,083	\$55,664	2.48		
Two children, both 5-17	194,984	19.45%	\$9,927	\$52,522	2.83		
Three children, two* 0-4; one 5-17	36,370	3.63%	\$9,081	\$44,569	2.75		
Three children, one 0-4, two 5-17	39,701	4.96%	\$7,581	\$52,543	3.23		
Three children, all 5-17	104,189	10.39%	\$8,284	\$51,980	3.40		
Four children, two of each	18,524	1.85%	\$11,767	\$38,116	3.80		
Four children, one 0-4; three* 5-17	11,865	1.18%	\$8,148	\$46,222	2.94		
All other households with children	23	0.00%	\$7,200	\$18,000	4.00		
	1,002,641						

Note 1: * means that the SHS datafile sets maximums on the number of children reported. 2 (in the 0-4 range) means two or more and 3 (in the 5-17 range) means 3 or more.

Note 2: shaded area is for family sizes with sample counts too low to provide reliable information.

Source: Statistics Canada, Survey of Household Expenditures, 2009; public use microdata file and calculations by author.

Budget standard estimates of the cost of children: The evidence

There are a number of international estimates of the cost of children that use a budget standard (or modified budget standard) approach. In some cases, the focus is on the cost of a child at the basic needs level (point T in figure 1). Most, however, are for a middle income family. Below, there is a more detailed discussion of a number of prevailing budget standard estimates of the cost of a child.

Canada

In Canada, estimates of the costs of a “minimum adequate standard of living” for families is provided annually by the Montreal Diet Dispensary (MDD). Their estimates come from a committee of individuals with family budgeting experience. They specifically break down the costs by person so that estimates for children at any age are provided. The estimates in table 4 are drawn from the MDD (Budgeting for Basic Needs, 2010) tables and put into categories by the author.

Table 4: MDD estimates of the cost of a child in a two parent family, 2010

Spending component	4 year old child (G)	12 year old child (B)
Food	\$1,638.60	\$2,517.12
Clothing	\$332.33	\$519.04
Personal care	\$114.05	\$222.64
Household supplies	\$127.68	\$127.68
Personal allowances, recreation, religion, school supplies*	\$51.72	\$728.56
Total	\$2,264.38	\$4,115.04

*Note: School supplies includes tuitions, books, supplies, activity fees, sportswear, busing, locks, yearbook, etc.
Source: MDD(2010), *Budgeting for Basic Needs*; calculations by author.

Table 5: Manitoba Agriculture Budget estimates of the cost of a child in a two parent family, 2004

Spending component	4 year old child (G)	12 year old child (B)
Food	1,156	1,732
Clothing	558	915
Health care	224	260
Personal care	112	202
Recreation, reading, gifts, school needs	571	950
Transportation	0	509
Total	2,261	4,568
Updated to 2010 (using all-items CPI, Canada)		
Spending component	4 year old child (G)	12 year old child (B)
Food	1,286	1,927
Clothing	621	1,018
Health care	249	289
Personal care	125	225
Recreation, reading, gifts, school needs	635	1,057
Transportation	0	566
Total	2,916	5,083

Note: The full Manitoba Agriculture estimate includes allowances for child care (assuming an employed single parent) and housing. Table 5 excludes these two items as per the discussion above.

Source: Manitoba Agriculture, 2004 and calculations by author

An additional budget based cost of a child in Canada, which has been cited in various articles and studies, is that by Manitoba Agriculture.²⁷ The Manitoba costs of a child are no longer updated annually so the published estimates for 2004 have been updated to 2010 using the all-items CPI for Canada and are displayed in table 5. While the Manitoba estimates include amounts for both housing and daycare (to age 11) for all families, table 5 excludes them. Such costs do not apply to all children—or even most of them. The *MoneySense* article, cited earlier, is essentially an attempt to update and revise the Manitoba estimates while keeping the same components.²⁸

27 See: <http://home.gicable.com/~jqgregg/Cost%20of%20raising%20children.pdf>.

28 The Manitoba estimate for daycare for a preschool child (4 years) in 2010 is \$5785. By comparison, middle income families (with total incomes between \$64,000 and \$99,000) spent only \$1865 on daycare for a preschool child in 2009. For families with incomes below \$64,000, the average spending on daycare for a preschooler was less than \$300. (Statistics Canada, SHS, 2009; calculations by author).

The Manitoba estimates are somewhat higher than those of the MDD. The former makes reference to an “average, middle-income” (Manitoba, 2004: 4) family whereas the latter specifically aims to provide cost estimates for a “minimum adequate standard of living” (MDD, 2010: 35).

United States

In America, the most well-known budget based estimates of the cost of children is the annual USDA reports. However, these are not prescriptive calculations but rather are drawn from actual expenditures of families with children. Various techniques are used to extract the child’s portion of shared costs for lower income, middle income, and higher income families. These amounts cannot be treated as budget standard needs based costs of children but rather as estimates based on actual expenditures by families. These cost values are nevertheless included here because of their widespread use for policy purposes in the US and for comparison purposes. There does not appear to be an up-to-date and widely used budget based estimate of children/family costs available for the US.

Table 6 provides the cost of children calculation (in US dollars) by spending component for 2010 for the first of the three income ranges (i.e., families with children with total incomes under \$57,600). Information for spending on children for the other two income ranges (i.e., between \$57,600 and \$99,730 and over \$99,730) is not included here. Only the values for a 4 year old child and a 12 year old child are included for comparison purposes with the Canadian budget standard results.

Table 6: Annual expenditures on one child in a US lower income, less than \$57,600/year, two parent family, 2010

Spending category	4 year old child	12 year old child
Housing	2,950	2,950
Food	1,220	2,060
Transportation	1,120	1,340
Clothing	490	670
Health care	580	1,050
Child care and education	1,840	840
Miscellaneous	610	690
Total (all)	8,810	9,600
Total (excluding housing costs)	5,860	6,650

Note 1: Child Care and Education includes only families with child care and education expenses

Note 2: Miscellaneous includes personal care items, entertainment and reading materials

Source: USDA, Expenditures on Children by Families, 2010; Mark Lino (<http://www.cnpp.usda.gov/publications/crc/crc2010.pdf>).

While these US values are of interest, it is important to emphasize that they do not represent either the basic needs cost of children or a middle income cost of a child as determined by an expert panel but rather are estimates of spending on children for the families in the lowest third income group. As well, there are several assumptions and choices made in determining spending on children that need elaboration. For example, the inclusion of housing as a spending category even though a substantial portion of parents (as is the case in Canada) will be home owners whose costs are likely to continue even if the child were not there. Housing costs include mortgage payments (principal and interest) or rent. Also included are maintenance and repair costs, insurance, utilities, phone service (cell phones and land lines), furnishings, and equipment are included in the cost estimate. The USDA used to determine the child's portion of housing costs on a straight "per capita" approach so that if there are three people in the household (including the child) the total costs of housing are evenly split three ways. However, more recently, they have used an additional cost of adding a bedroom approach (the cost of adding a bedroom to accommodate an extra person). No account was taken in the (many) cases where families already owned homes with sufficient space to accommodate the extra child or children. The transportation category determines all of the "family" (as opposed to work related) usage of the family vehicle and divides those costs (which include car payments, fuel, insurance, maintenance and repairs) on a per capita basis among the members of the family. Research from the Health and Human Services agency is used to determine the share of out-of-pocket health care costs attributed to children. In the US, families pay much higher out-of-pocket health care costs than in Canada, due to differing health care systems. Finally, the USDA includes child care expenses even though not all families with children incur such expenses. Indeed, the value they use is determined by including only families who have such expenses and so is not a representative average for all families with children.

Britain

Oldfield and Bradshaw (2011) have recently used a budget standard approach (which included cultural and social necessities) to estimate the costs of children in Britain. Table 7 below summarizes the categories and costs, in 2010, for a preschool child (age 3) and a secondary school child (age 14). All costs are in British pounds but are converted into Canadian dollars in the adjacent column using the average 2010 exchange rate.

Table 7: Cost of one child by age, Britain, 2010 (in British Pounds per week)

	Preschool	Age = 3	Secondary School	Age 14
Component	£ per week	Can\$ annual	£ per week	Can\$ annual
Food	£17.19	\$1,430.21	£23.39	\$1,946.05
Clothing	£7.06	\$587.39	£14.19	\$1,180.61
Rent and housing related	£25.83	\$2,149.06	£26.28	\$2,186.50
Household services (incl. baby-sitting)	£3.73	\$310.34	£2.49	\$207.17
Child care	£28.76	\$2,392.83	0	0
Personal goods and services	£10.10	\$840.32	£7.36	\$612.35
Travel costs	£1.77	\$147.26	£12.24	\$1,018.37
Leisure	£19.30	\$1,605.76	£30.29	\$2,520.13
Total	£113.74	\$9,463.17	£116.24	\$9,671.17
Total excluding housing	£87.91	\$7,314.11	£89.96	\$7,484.67
Total excluding housing and child care	£59.15	\$4,921.28	£89.96	\$7,484.67

Source: Oldfield and Bradshaw, 2011: 135 (drawn from www.minimumincomestandard.org/).

It is important to recognize that the values in table 7 include more than just basic needs. Cultural and social necessities are factored into a number of the components, particularly leisure. The information in the table was drawn from work by one of the authors on a “minimum income standard” project which aimed to determine a budget that covered all basic needs but also included “what you need in order to have the opportunities and choices necessary to participate in society” (Oldfield and Bradshaw, 2011: 132). The authors work in the Social Policy Research Unit (SPRU) at York and the SPRU website explains that they bring “together two approaches to setting budget standards: the ‘consensual’ negotiation of budgets by panels of ordinary people, and budgets based on research evidence and expert judgements” (2013: 1).²⁹

The budget estimates for food and clothing are reasonably close to the Canadian (Manitoba) values in aggregate. The major difference is in the leisure category, which would presumably include a whole range of non-work activities like sports, recreation, entertainment, reading, and social activities. This category, perhaps more than any other, captures the “consensual” approach that has become fairly well established in Britain and other parts of Europe. However, in 2012, this approach underwent a major revision and the new

29 See <http://php.york.ac.uk/inst/spru/pubs/1046/> for more information.

estimates appear to be more comparable to those in Canada. *The Minimum Income Standard for the UK, 2012* compares the budget, which specifically excludes rent and child care, for a couple with no children to that for a couple with one child (age unspecified). The average difference over the past five years has been about is £46 per week or about \$3,750 per year in Canadian dollars. This newly revised value is clearly in the range of the Canadian estimates (the MDD values, for example, are about \$2,300 for a 4 year old and about \$4,100 for a 12 year old) which also exclude housing and child care costs.³⁰

Australia

Australia has a well established tradition of estimating the costs of families and of children using the budget standard methodology. While a number of researchers have made contributions in this area, Paul Henman of the University of Queensland is the acknowledged leading expert. In a 2005 discussion paper entitled *Updated Costs of Children Using Australian Budget Standards*, Henman distinguishes two “standards” that are of interest. The “low cost” standard is a frugal living standard which “allows for social and economic participation consistent with Australian community standards” (Henman, 2005: 3). The “modest but adequate” standard “affords full opportunity to participate in contemporary Australian society and the basic options it offers” (2005: 3).

A very detailed analysis of budgets involving the costing of several hundred different items resulted in budgets for families with (and without) children from which child costs could be determined. One particular item presented a significant challenge for the author. “Estimating the costs of housing is fraught with difficulty. This is due to the great variability of housing and because most of a mortgage is property investment and therefore a form of wealth” (2005: 4). In the end, Henman decided to determine the housing cost of a child as the cost of a required additional bedroom (using median rents; 2005: 4). The 2004 cost of a six year old child at the modest but adequate level was about \$6,000; excluding housing costs, the estimate was about \$5,000. The low cost estimate for the same child is about \$3,600, again excluding housing and daycare costs. Adjusting for Australian inflation, this estimate of about \$4,300 in 2010 dollars is somewhat above the MDD estimate for Canada which also purports to cover the basic needs of children for lower income families. Given the approximate parity between the two dollars, at least during 2010, these Australian estimates are still fairly close to the Canadian estimates.

30 See: http://www.minimumincomestandard.org/downloads/2012_launch/mis_report_2012.pdf (See MIS Report, 2012; Appendix: 46).

A number of other countries have similar work going on to determine, using a budget standard approach, the cost of children. The results from those nations with an established record of such estimates demonstrate that it is very possible to determine the basic costs of raising children using a thoughtful budget approach with experts providing guidance. While these results are somewhat similar (when translated into Canadian dollars), the interpretation is critically important. The subjective estimate (using a budget based approach developed by experts in the field) of the cost of covering the basic requirements of a child consistent with socially acceptable standards should be thought of as a useful benchmark both for family budgeting and for public policy. This does not mean that families cannot successfully raise children on less than this, nor is this research intended to dissuade families from having children if they cannot afford these amounts. Low-income families have always found ways (via home gardens, savings strategies, using hand-me-downs and used toys and furnishings) to creatively cover their children's needs. In some cases they received assistance from family, friends, local agencies, and government programs. In many other cases they were able to do it largely on their own.

Summary of the evidence from needs based budget standards

In Canada, the budget standard approach suggests that the additional cost of adequately providing for a child's needs at the basic level is in the range of about \$2,500-\$4,000 per child per year, on average, in 2010. It would be at the higher end of the range for older children and towards the lower end for younger children. It could be more than this for children with special needs and in cases where additional amounts are required for rent and/or daycare.

Adding a child to an existing household is not expensive. While it is possible to spend a substantial amount on children, it is important to emphasize that necessary costs for healthy development consistent with socially acceptable standards are not high. Adding a second (or third) child will often involve some economies, however, none are assumed here. Again, beyond this "needs" level of spending on children, parents will spend discretionary amounts that vary widely depending on several key factors including parenting style, disposable income, wealth, level of economic security, and other obligations.

The omission of housing and daycare costs

Housing

Researchers estimating the cost of children must deal with the issue of housing costs. Unlike additional food, clothing, toys, and the like, specifically

for children, parents often already have housing to accommodate the child. Parents select the housing arrangement that is both affordable and suits their parental lifestyle. In addition, for the 72% of parents who own their own home, the home is both a place to live and a financial investment that yields a rate of return over time. A larger home is a bigger investment with a higher absolute expected return. Therefore, housing, in general, is not a cost that should be attributed to children. Indeed, not only is it inappropriate to count housing as a cost of children but, based on available expenditure data, an additional child will often not increase housing costs, independent of changes in disposable income/consumption. This, of course, would exclude any extra repair and utility costs that are due to the child.

It is useful to look at some evidence; specifically, the actual expenditure numbers in the case of two parent, modest-to-mid level income, families with one versus two children drawn from the survey of household spending of 2009. Their total incomes are in the range of \$40,000 to \$80,000³¹ and there is a mix of renters and homeowners in the group. Families with one preschool child have an average total income of \$60,406 and an average after-tax income of \$51,442. Their average spending on housing, which includes all housing costs (e.g., water, fuel, and electricity) was \$14,255. For two parent families with two preschool children, average after-tax income was \$55,832 and average housing costs was \$15,673. The 10% higher housing cost is closely matched by the 9% higher after-tax income. For two parent families with one child in school plus one preschooler, the average after-tax income is \$54,357 and the average housing cost is \$15,232. Again, the 7% higher housing cost is essentially matched by the 6% higher disposable income (SHS, 2009; calculations by author).

What if parents with children (or a child on the way) move to more expensive housing? Parents, of course, move for a variety of reasons. Income, size of family, lifestyle, and preferred location will be important considerations in the choice of housing. Higher income alone, independent of the size of the family, will often prompt a move to more expensive and more spacious accommodation. However, more spacious accommodation is not always more expensive. A higher end one bedroom apartment may cost more than a lower-to-mid level two bedroom apartment. For lower income individuals with children, a move to a size-appropriate “social housing” unit will undoubtedly cost less than market housing. There are more than 600,000 social housing units in Canada and poorer families with children are given a high priority for these units. It would be a rather significant error in the calculation of the cost of a child if we simply use the “bedroom cost” differential based on median market rents for every additional child. That is simply not the economic reality of most families raising children in Canada.

31 The sample here is large enough for sample counts to be reliable but also such that income is sufficiently high that it does not become a pressing constraint.

A reasonable accounting of the direct costs of raising children would not include housing costs across-the-board but would include only the marginal housing costs where applicable in specific family situation. In many cases, for example, where families own their own home or where social housing is involved, there will be little or no extra costs of housing. This, of course, does not apply to “operation” costs. There are likely to be additional costs of operating housing (owned or rented) when a child is added and an estimate of these costs should be included.

While the child occupies the parents home, there will likely be additional “household operation” costs that can properly be attributed to the child including additional hot water, utilities, and (possibly) electrical expenses, as well as additional supplies that are used for the child. Budgeting for such costs, because of the shared nature of the goods, will be difficult; however, differential spending (on these items) between households, with and without children, could be a useful guide to what the child typically adds. Broadly, the exclusion of several durable goods (like housing and a vehicle) is consistent with the “individualised” costing approach described by Gray and Stanton earlier in this paper.

Daycare/paid child care

The exclusion of daycare costs from the list of needs using the budget standard approach is not because daycare is not a legitimate expense for households with children but mainly because many families with children will have little or no daycare costs. For example, in some two parent (intact) families, one parent may decide to stay at home to care for a pre-school child or children. In other cases, parents may have free daycare at their place of employment or have a close relative who cares for pre-school children. For school-age children, there are again a number of low-cost (or no-cost) options for parents. Finally, children over the age of 10-11 typically do not require any kind of daycare. Therefore, with the budget approach, and the focus on essential needs, it would not be correct to assess the cost of professional daycare to every child under 18. Or even every child under 12. That is simply not the reality of actual spending (on daycare) by families with children, as table 1 shows. This item is best treated as a special expense for those families for whom it is relevant. Again, actual spending by families with children can be a more helpful guide than the cost of professionally provided daycare. Here is some evidence:

In 2009, for middle income (\$75,000-\$125,000), younger (25-44) couples with one child, half (51%) had zero expenditures on child care. Only 14% had child care spending in excess of \$5,000 for the year. If we consider all couple families with one child (all ages and all income levels), 80% had zero spending on child care. And if we look at all lone-parent families with one child, 87% spent \$0 on child care. For families with two children, 67% of couple families had zero spending on child care and 83% of lone-parent

families had a zero expenditure. This evidence suggests, at least for Canada, that applying a given dollar amount (say, \$5,000) for child care to all families with children is simply inappropriate. It does not reflect the actual experience of families raising children at the present time. For all couples with one child, the average spending on child care is about \$1,800. (Statistics Canada, SHS, 2009; calculations by author).

Looking specifically at the spending of couple families with one child in the income range of \$75,000 to \$125,000 is important because they represent families that do not have a pressing financial constraint. There certainly will be unavoidable child care costs for some families; however, it is preferred to add in a budgeted amount only for those families for which this is a relevant expense rather than impose the average on all families across-the-board.

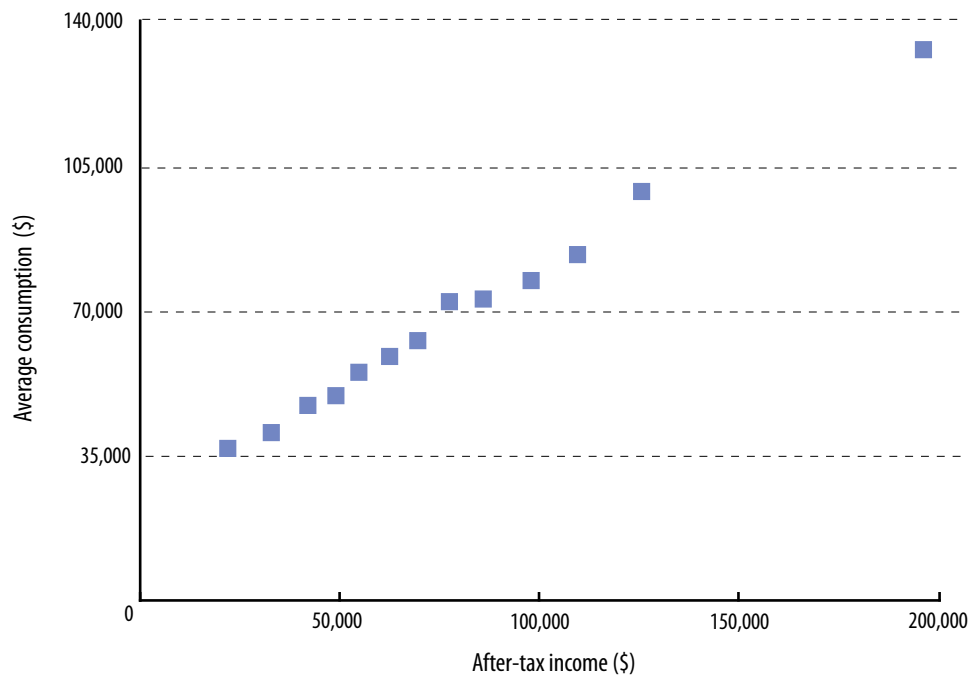
Discretionary spending on children

The cost of acquiring a child's basic needs is relatively modest. From that perspective, children are not too expensive. However, parents will always strive to provide more than the essential requirements as their situation permits. For example, parents with combined incomes of over \$100,000 might allocate money for music lessons, a trip to Disney World, more expensive clothing, more elaborate toys and games, and more educational resources for their child which they would not have been able to do if their income were a third of that. While income (disposable income, more precisely) is by no means the only consideration in determining discretionary spending on children, it will certainly be important.

What we do know (from a fairly substantial literature in the area) is that overall family consumption tends to be closely related to disposable income. Generally, there will be some base amount that needs to be consumed that is independent of the level of income. As income begins to rise, families consume more but the ratio of consumption to disposable income declines steadily as families begin to save some portion (sometimes an increasing portion) of that disposable income. Figure 2 below shows the consumption function for two-parent families with (unmarried) children for Canada in 2009.

Figure 2 represents broad averages. For individual families, overall spending and spending on children above the base level is far more difficult to determine. Every family will have a different level of spending depending on their income, parental style, and individual circumstance. Therefore, using the budget standard approach, it would be meaningless to determine amounts (or proportions) that would be credible. Families will differ, sometimes substantially, on the amount that they will spend on their children above the basic requirements even if the income is the same.

To reiterate an important point made earlier: There is simply no reliable way to extract the amounts actually spent on children from the spending

Figure 2: Consumption function for families with children, 2009

Source: Statistics Canada; Survey of Household Spending (SHS), 2009, microdata file and calculations by author.

survey data. There are some categories in the expenditure database of identifiable spending on children (like clothing for preschoolers and daycare) for which reliable data is obtainable. However, other categories, like furnishings, transportation, recreation, health care, and school/educational spending are joint (shared) consumption commodities and there is no way to decompose the spending by family member without some fairly ambitious assumptions. The spending differential between comparable families (without and with children) is not a legitimate method of determining the child's portion of costs because of the inevitable behavioural changes that occur within families once children arrive. Spending patterns change, significant substitutions occur and families can modify their purchases even of basic needs.

If we cannot extract actual spending on children as a guide to a child's "cost", what we are left with is the budget standard approach. It is the only reliable way to estimate the cost of a child. For each family, there will be a basic level of spending required for the healthy development of a child. Given that definition, there is likely to be broad commonality on the list of those essential requirements. Families can meet the extra expenditures for a child by spending more (saving less) and by making substitutions—normally by reducing spending on "adult" goods and increasing spending on the child. Beyond that basic level of spending, each family will have its own budget for discretionary spending on children that will depend on a variety of considerations.

“The skyrocketing cost of raising kids”

The above subtitle is the name of a very recent article from Canada’s *Financial Post* (Martin, 2012). It is typical of the many recent stories in the print and television media about the high cost of children. These stories and reports are shamefully biased and needlessly alarmist. They generally take an anecdotal situation and then run with it as if it represents all families with children. In the case of the *Financial Post* article, they feature a Toronto couple paying \$17,000 per year for child care for two young children. No information is given about the couple’s two incomes or about their other spending. They also quote a UBC professor as saying that “Canada has become a country in which it is harder to raise a family.”

This is simply not correct. In fact, the evidence presented in this paper suggests just the opposite. It has never been easier, financially, to raise children in Canada: the necessities are easier and less costly (as a proportion of income) to acquire; real incomes are higher; there are more dual earner families; people are raising fewer children than ever before; and, for lower income families, there are substantial government benefits that will partially or completely offset the cost of raising a child (benefits that were not as generous in the past).

Yet, the various estimates of the very high cost of raising children have a receptive audience in the media. For whatever reason, the media consistently portray child costs as very high and use emotionally charged words and phrases (like “skyrocket”) that go well beyond honest reporting. This, regrettably, appears to be the message to the general public in the US, Canada, Britain, and elsewhere that children are very expensive indeed.³²

There is even a well known blog (Whynokids.com) that advocates against having children due to the high costs involved. Public expressions of concern and puzzlement about low fertility rates in Europe and North America³³ might find some answers in the widespread, media-fed belief that children are expensive. One recent estimate from the US Department of Agriculture (USDA—a very common source of stories about the high cost of children) has the cost, in 2010 dollars, of raising one child to age 18 by a middle income

32 See the following websites for more: http://money.cnn.com/2011/09/21/pf/cost_raising_child/index.htm; <http://www.bellaonline.com/articles/art13459.asp>; <http://www.moneyunder30.com/cost-of-having-a-baby>; <http://www.ft.com/cms/s/0/c7e1e524-3e72-11e0-9e8f-00144feabdc0.html#axzz24xC3RJsU>; <http://whynokids.com/tag/cost-of-raising-a-child/>; <http://www.guardian.co.uk/news/datablog/2012/jan/26/cost-raising-children>; http://www.canadianliving.com/life/money/how_much_does_it_cost_to_raise_kids_in_canada.php.

33 See: <http://folk.uio.no/keilman/EV.pdf>; and http://www.huffingtonpost.com/2010/08/27/us-birth-rate-sets-record_n_697131.html.

family, as being US\$227,000.³⁴ And a more recent article from the *Guardian* in Britain revealed that the cost of raising one child to age 18 in that country was £218,000 (or about CND\$350,000). This latter claim does not include any housing expenses (as those are parental costs) but estimates that education, child care, and babysitting will cost parents in Britain about 61% of that amount (about CND\$213,000).

These estimates are as frightening as they are wrong. They simply don't reflect the experience of real contemporary families raising children. Without disputing that parents could spend these amounts on their children, they certainly will not need to spend anything close to that in order to cover all of the required needs or healthy development at socially acceptable standards. In Canada, that core spending amount is in the range of \$55,000-\$80,000 over the first 18 years of the child's life. And a great many parents find ways to reduce that amount by using savings strategies when shopping, home production of some goods, and by expecting children, when they are old enough, to work part-time for pay to offset some of their expenses.

The experiences of real families raising children seems to be a missing ingredient in most of these estimates of the high cost of children. It is rare that their opinions are sought when estimating costs and when considering policy. However, sometimes parents are compelled to speak out to dispel inaccuracies and claims made in their name. Appendix A contains a selected number of recent comments by parents about the stories of the high cost of raising children. These comments are not part of a scientific study but are worth reviewing for the balance they provide to alarmist, inaccurate media stories.

34 See: http://money.cnn.com/2011/09/21/pf/cost_raising_child/index.htm.

Conclusion

Utility based methods of determining the cost of children are fundamentally flawed on several counts. They assume that children are a burden to their families and that wellbeing will decline as a result of having children. This is clearly not the case. They further assume that wellbeing (utility, in other words) can be accurately measured using some proxy; this is also not the case. Finally, these methods assume that the cost of a child can be better determined via an income compensation rather than a budget approach.

It is difficult to find any consistency in the various values purporting to represent the cost of children. Browning, in his review of the proxy and utility based methods emphasizes the wide range of results and concludes “that empirical attempts to pin down the costs of children have not made much progress” (1992: 1444). A more recent review again shows substantial variation in the empirical results (Menon and Perali, 2008: table 5).

Utility based methods are not reliable ways to estimate the costs of a child. We are left with budget standard and expenditure methods. The first method attempts, typically using an expert panel, to measure the expected costs of raising a child at a socially acceptable standard of living. The second attempts to find, after the fact, the actual spending on the child (or children) separate from the other members of the family. The expenditure approach is hampered by the difficulty of apportioning the spending on jointly consumed goods and services—like food, household supplies, some furnishings and utilities, health care, and transportation—to various family members using survey data. There appears to be no empirically credible method to extract the child’s portion from the aggregate household spending amounts.

The budget standard approach is useful and reliable despite inevitable subjectivity in the spending categories selected for consideration. If the definition of the “cost of a child” begins with the necessary costs for healthy

development, the scope for subjectivity (and therefore the range of estimates) is likely to narrow considerably. There does not appear to be any other way to get a handle on the empirical measurement of child costs. The cost of a child, in a contemporary context, is first and foremost, what parents can expect to spend to cover the essential needs of their child. Any discretionary spending beyond that level is hard to predict.

Using the budget standard approach and this working definition of the cost of a child, the “benchmark” cost of a child in Canada is between \$3,000 to \$4,500 per year depending on the age of the child. This does not mean that lower income parents cannot successfully raise children on less than this. This benchmark cost, however, is a useful approximation of the starting point for the cost of a child and can be used, with some caution, as a guideline for parents and policy makers regarding the cost of children.

The attempt to measure the cost of children is laden with political implications. This is clearly not simply a scientific exercise. There are vested interests in having high costs for raising children. The social welfare community, a broad coalition of public service workers, social activists, academics, and many journalists, is active in lobbying the state for more resources for families with children. This agenda, associated with left-liberal and social democratic positions, is part of a redistributionist perspective and it would be naive to ignore the influence it has on public policy. A high cost of children is consistent with this agenda. It results in higher poverty lines and therefore higher poverty rates and this provides “evidence” that the state’s policies are inadequate. Government programs that purport to provide financial assistance to families with children will be measured up against this cost of a child. Similarly, child support schemes that compel non-custodial parents to pay custodial parents will employ estimates of the cost of children that are often influenced (directly or indirectly) by political decisions (for examples, see Allen, 2011 and Sarlo, 2012: 74).

Any evidence of suffering children is a powerful catalyst for public policy change. For this reason, it is important for researchers and policy makers to be particularly cautious with claims along these lines. If there is an incentive to have a high cost of children then care must be taken to review the evidence critically.

Appendix A: Selected comments by parents

1. In response to the *Financial Post* article, *The Skyrocketing Cost of Raising Kids*, (December 12, 2012).

Gary Martine:

Rather a poorly argued point. I never went hungry or cold, and am well educated with a great career. Oh, and I grew up in a family of ten, with one working parent. Adjusted expectations are perhaps in order.

Liz Chalmers:

Many of the GTA immigrants handle child care differently. One grandparent or both look after the kids. They live together in one dwelling and save on housing costs and daycare. The kids get proper nutritious meals and the grandparents discipline the kids the same way they raised theirs. I find the kids are emotionally healthier being with family around the clock.

SHB 50:

When my wife was pregnant, we were told we couldn't live in our apartment anymore, so we went looking for a house. We both worked at the time, so the real estate agent showed us houses that we could own (with a high mortgage) if we both continued to work. We told the agent that we wanted to look at houses in the price range of one salary, not two. Smaller town-house? Yes. Affordable? Yes.

When our first child was born, my wife stayed home to care for her. When our second child was born, she also stayed home.

We have continued to live this "traditional" '50s lifestyle. Our car is 15 years old, but still serviceable. Our house is paid off and presentable. We

have no debt. Our kids are clothed, as are we. We were able to help them with some university expenses, but they were responsible for most of the money. They got jobs and worked for it. The kids were able to graduate debt-free from 4-year programs. They earned their degrees. They paid their expenses. They valued the time in university more because they were paying for so much of it themselves. If we had foot the bill, I'm not sure they would have put so much effort into it.

Like others, I have to hand it to my spouse, who can make dollars from nickels. We make or make do.

It is entirely possible to do what we have done. Like Mommy said, it's all a matter of priorities.

An Editrix

This article (*The Skyrocketing Cost of Raising Kids*) is ridiculous, the numbers are totally out to lunch. We have not spent anywhere near what they suggest on the various child rearing essentials. We have 3 children, hoping for a 4th and we live on one income less than \$70K per year so very average and we have no issue paying our bills and living in a comfortable home. What we don't do is cater to every whim of our kids and have them in a bunch of programs. We focus on the essentials like swimming lessons and maybe one other extra curricular activity per year like basketball or soccer. We are reasonable at b-days, don't take elaborate holidays and run a tight grocery and household budget. We also...gasp!! go to thrift stores for clothing because in this materialistic society we can dress our kids in Gap and Nike at a fraction of the cost because nobody uses anything until it is threadbare anymore and they buy 10 times what they need. It can be done, you just need to make different lifestyle choices than what our society tells you.

Debunking the myth

It's all about priorities. I earn a good income at about \$72,000 per year. My wife stays home and looks after our 4 children. I would not be able to work as hard as I do, if I did not know that she was at home looking after all of the things that life tends to throw at a young family. When I look at other people my age, they tend to have dual incomes, with fewer children. Typically they are together earning well in excess of 100K per year. They drive nicer cars, eat out more, go on vacations and complain about daycare costs, shuttling kids from here to there, and being in debt.

Our family vacations are simple, and with children really all they want is you, not some fancy trip. We have two cars, neither of which is fancy but both are good and reliable. We own our own home, and in 6 years will have it paid off if all goes according to plan. I have no other debts other than my home, and will be mortgage free by the time I am 43 years old.

We don't have daycare costs, our lives are not so rushed that we eat out more than once a month. Im not saying that life is easy, it takes discipline to make it work, but it is worth it. Who said life was supposed to be easy anyway?

Its a myth that you need two incomes to survive.

Momofthree

Agreed. I am a stay at home Mom of three and all too often we have friends who complain that it 'must be nice' to stay at home, you know with all our money?? However, they all seem to have mortgages in the upscale of 200K more than us (we NEED granite countertops you know... for all the cooking we don't have time to do), we have one van, we take the bus (since I'm home all day it's not a problem to spend a whole day going to appts on a bus), they have two brand new cars, we go camping, or stay home and have zoo trips as a vacation, they go to Mexico to unwind, they share chores after a long day working and commuting, we relax and enjoy one another's company after our children are put to bed, since the chores can either wait until I have time the next day, or they are already done. They wonder how they can fit children into their already expensive lives, that consider children a afterthought. We realized children would become our lives and planned accordingly. There just isn't room in our budget for meals out, but really, I make home made bread (from hand) and delicious homemade meals, so we don't like eating out anyway.. the thing is that because of all of their consumer debt (to help make their busy lives more convenient) they also can't afford meals out, but they have accepted the notion that it's normal and acceptable to be in extreme debt. I too wonder how they could fit children in. But just think... what if they sold their house and bought a less expensive home, like one say 10 years old rather than brand new, sold one car, she stayed home and had time to really spend on her family and her husband. We live the lives we choose.

2. In Response to the *MoneySense* article "The Real Cost of Raising Kids"

VancouverC:

I think the discussion should be framed less around how much it costs to raise a kid, and more around the lifestyle change, or how much money you're not spending on other stuff. I'd read many an article like this before I had kids, and braced myself for financial struggles ahead, but after a while I noticed that with kids, I don't actually spend more each month... I spend the same, but it's just allocated to different things. Kids are a change in how you spend, not an increase. They're a change in lifestyle.

3. In Response to the *Globe* article “How Society Gloss Over The Real Cost Of Raising Kids?” June 13, 2013

Jim Jacobson

Kids will cost you a lot only if you choose to pay a lot.

Braces? Are you sure they are really required? Or is it more a fashion than a real need? University tuition? What makes you think that you have to pay for it? if your kids truly want to go to university, they can get a student loan. By the way it will serve as a tremendous incentive to succeed in education and future career. Otherwise there are many trades they can go into and earn not less and often more than university graduates do.

Kids cost you exactly what you choose to pay. You can have one spoiled brat and spend a fortune on him/her. You can also have five, spend less on them all together than on one and have a wonderful family. I personally know both types.

4. In response to YahooFinance article “The Cost of Raising A Child”, May 7, 2012

Amy

what a joke of an article. I didn't cost me nearly half of that to raise my son in his first year of life. My husband and I graciously accepted free stuff. A used crib, garage sale swing and toys, used clothing.....like Helloooooo! Even with formula, diapers, clothes and a few new toys, I think my son cost us \$4000 MAX and I think thats a bit of a stretch as well.

This \$10k a year if for the newbie parents of my generation (early 30's) that think they need to buy \$2000 worth of baby furniture, all brand new clothes, new toys, new, new, new..... I love my son dearly, and my husband and I do take home an above average income, BUT i don't live and work to give my son the most expensive of everything. I shop second hand, I flyer shop for groceries and toy swap with friends. My son is 2, almost 3 now and wouldnt know the difference between a new toy truck and a used one. nor between a gently used pair of pants he will outgrow in a month.

I say shame on who ever wrote this article. My husband and I are capable of enjoying life much easier when we think about budgeting for our son's needs, saving for the important things...etc. We enjoy more trips and outings then most of the couples we know who don't have children. Mostly because we bought a small but affordable home, we share one car and arent ashamed of buying second hand.

Appendix B: Equivalence scales, poverty, and the cost of children

Some researchers have used equivalence scales to determine the cost of a child. There are very real issues with this, not the least of which is that an equivalence scale does not, in fact, purport to tell us how much a child costs. Rather, it attempts to reveal what additional amount (percent) of income the household must have, when they add a child, to be as well off as they were when they were childless. This is not the same as the cost of raising a child.

Equivalence scales are the result of the attempt to answer the iso-welfare question. In some cases, equivalence scales are simply guesstimates of the extra costs involved of adding a spouse or a child to an existing household and are based on the experience of the user. However, in the past 25-30 years, there have been many studies using a variety of econometric techniques to try to estimate equivalence scales. These scales purport to reveal how much more income (or spending) is needed as we add more members to the household in order to maintain the same level of utility as the “reference” household. The reference household is usually a couple with no children but can also be a single adult.

The fact that there is little consistency and wide variations in estimated equivalence scales suggests fundamental methodological issues as well as the inherent difficulty of decomposing family spending. Studies by Griffiths and Valenzuela (1995); Menon and Perali (2008), Table 5; Gray (2007), Appendix A; Letablier et al (2009, Table 1); and Gray and Stanton (2010, Table 1) as well as the summary presented in Browning (1992, Table 2) show very wide differences in equivalence scales using the various approaches discussed above.

The implicit cost of a single child based on these equivalence scales ranges from less than 10% of an adult to as high as 50% or more.³⁵

For example, the “40/30” equivalence scale established by Statistics Canada in the development of their low-income measure (LIM) states that the second adult adds 40% more to costs than the first adult and that the first child adds another 30% while maintaining the same level of wellbeing for the first adult. So, in terms of the implicit overall costs of the members of the (three person) household, the first adult costs 59% ($1/1.7$) of whatever the household spends; the second adult accounts for 24% ($.4/1.7$) of the costs; and the child accounts for 18% ($.3/1.7$). In dollar terms, in a low-income household with income (and spending) of \$25,000, the child cost is \$4,411 according to this equivalence scale. This value is in the range of the basic needs estimates of the cost of a child using the budget standard approach. However, in a high income household with a family income of \$200,000 (and spending of \$160,000), the cost of the child, using the 40/30 scale, is \$28,235! The child always represents 18% of the household’s overall costs regardless of the level of income.

Because equivalence scales are based on the idea of equivalent levels of well-being and well-being is not empirically measurable in any reliable way, there is an immediate issue of relevance. However, even if we assume that we are measuring equivalent material standards of livings, we would have to find some credible proxy for standard of living. There is certainly nothing that would be widely acceptable as our earlier discussion of the Engel and Rothbarth methods revealed.

And even if a reliable proxy for well-being or standard of living could be found, the use of equivalence scales to estimate the cost of a child is still problematic. This is because, to the extent that equivalence scales have any validity, they can only be used within a particular (and likely fairly narrow) range of incomes. An equivalence scale intended for use in a poverty context (like the 40/30 scale) should not be used at other income levels and certainly not used across the board at all income levels. The blanket use of any equivalence scale to compare living standards of households at different income levels means that one has to accept that spending in general (and spending on children in particular) is proportional to income. This is clearly not true as the discussion earlier in the paper demonstrated. The cost of a child is simply not a constant percentage of the parents income or the parents expenditures. It is likely that spending on a child, were we somehow able to measure it, would decline as a percentage of disposable income as we saw with parents overall consumption in figure 1.

35 Many of the papers cited in these studies and some of these studies themselves are working papers or policy reviews and are not peer-reviewed]

Poor Families with Children

An illustration of the marginal cost of a child in a “poverty” context can be drawn from the MDD budget standard approach. In 2010, a low-income family of three (including a 2 year old child) must spend \$24,145 per annum to achieve what the MDD considers a minimum but adequate standard of living. Note that this amount is somewhat higher than their budget for basic needs discussed earlier. This includes rent, utilities, food, clothing, personal care, household supplies, replacements items, transportation, reading material, school supplies, recreation, religion, entertainment, phone, furnishings and personal spending allowances. The rent is explicitly and exclusively attributed to the parents, whereas child costs are determined with and without fuel in the recognition that children may add to fuel costs, directly and indirectly (eg., hot water). The marginal cost of the child is about \$3,662 for the year excluding fuel. In this context of near poverty, a child costs about 15% of the overall costs of the household. In other words, the addition of the 2 year old child to the household adds about 17%-18% to the costs. This is similar to what the 40/30 equivalence scale would predict but it must be emphasized that this is in a lower income context. This also assumes that one parent earns an income and the other parent stays home with the preschool child. We would expect that older children would cost somewhat more than younger children.

With the MDD, there is no suggestion of an equivalence scale. There is just a detailed accounting of the costs of parents and children in a lower income situation. And with this budget based estimate, a preschool child costs in the range of \$3,600 per year in 2010. There is no claim here that a lower income couple would require an additional \$3,600 (or so) to be as well off as they were when they were childless. We don’t know that! And we have no way of determining that. Indeed, a strong case could be made that, because the parents chose to have the child, they would very likely be better off with the child and its additional costs. All we really know is that an expert panel made up of professionals who have a long history of providing budgeting advice to lower income families have determined that the cost of a child in Canada at the minimum adequate standard is about \$3,600.

The “Net” Cost of a Child

For lower income families, at least in Canada, the state has established programs that provides cash benefits to families with children. The explicit purpose of such programs is to help families with the cost of raising children. The main program is the Canada Child Tax Benefit (CCTB) and the CCTB Supplement. Taken together, a low income family (income below \$24,683) would receive \$3,582 for one child under 18 and \$3,331 for the second, in 2012. In addition, if a low income family with children resides in Ontario

there is another \$1,100 per child. Add to this the Universal Child Care Benefit (a taxable benefit of \$1,200 for a families with a child under 6) and a low income family with, for example, two children (one under 6) could receive over \$10,000 specifically aimed at offsetting the cost of raising a child. In such cases, the net cost of a child (defined as the cost of all basic needs at a socially acceptable standard for children minus state assistance for children). In other words, the actual cash outlay for the low income family may well be zero, or even negative.

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