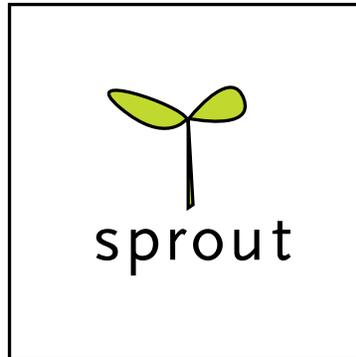




HOW TO UNDERSTAND THE COST OF LIVING IN YOUR COMMUNITY:

A GUIDEBOOK ON CONDUCTING
AFFORDABILITY STUDIES

JANUARY 2010



resources for social change

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Abstract

This guidebook discusses different ways of measuring poverty in Canada and describes how to conduct an affordability study for your community. By using this guide book, you will:

- Acquire knowledge about different approaches to measuring poverty in Canada
- Understand the market basket measure methodology for conducting affordability studies
- Develop skills to design and implement an affordability study for your community
- Engage options for how to use the results of an affordability study to address issues of poverty and low income in your community

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HOW TO UNDERSTAND THE COST OF LIVING IN YOUR COMMUNITY:

AN AFFORDABILITY STUDY GUIDEBOOK BASED ON THE MARKET BASKET MEASURE METHODOLOGY

PREPARED BY THE SOCIAL PLANNING AND RESEARCH COUNCIL OF BRITISH COLUMBIA

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ABOUT SPARC BC

SPARC BC KNOWS THAT COMMUNITIES ARE JUST AND HEALTHY WHEN PEOPLE HAVE EQUITABLE ACCESS TO PLACES, KNOWLEDGE, SERVICES, ADEQUATE INCOMES, AND COMMUNITY DECISION-MAKING PROCESSES. THAT IS WHY SPARC BC IS PASSIONATE ABOUT WORKING WITH PEOPLE ON INCOME SECURITY, ACCESSIBILITY, AND COMMUNITY DEVELOPMENT; AND ON THE CONNECTIONS BETWEEN THEM.

AS AN INDEPENDENT, NON-PARTISAN, REGISTERED CHARITY WORKING WITH BC COMMUNITIES FOR 43 YEARS, WE ARE AN EXCELLENT SOURCE OF KNOWLEDGE AND EXPERTISE, AND PROUDLY OPERATE THE PARKING PERMIT PROGRAM FOR PEOPLE WITH DISABILITIES. IF YOU ARE IN SEARCH OF COMMUNITY-BASED RESEARCH, CONSULTING SERVICES, OR PRACTICAL RESOURCES AND WORKSHOPS, THEN SPARC BC CAN HELP YOU.

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Table of Contents

1. Introduction	1
1.1. Who is this guidebook for?	2
1.2. What is included in this guidebook?	2
2. Understanding poverty and the role of affordability studies	3
2.1. How can poverty be measured?	3
2.2. What are community affordability studies?	4
2.3. Why do communities conduct affordability studies?	5
3. Options and steps for conducting affordability studies	8
3.1. Step 1: Planning the Process	8
3.2. Step 2: Selecting the items in your Community's Basket of Goods and Services	9
3.2.1. Select your reference family	9
3.2.2. Select the Items in the Community's Basket of Goods and Services	13
3.3. Step 3: Pricing Items in the Basket	15
3.3.1. Price out the Cost of Food for your Reference Family (ies)	16
3.3.2. Price out the Cost of Shelter for your Reference Family (ies)	21
3.3.3. Price out the Cost of Clothing and Footwear for your Reference Family (ies)	23
3.3.4. Price out the Cost of Transportation for your Reference Family (ies)	29
3.3.5. Determine the Cost of other Goods and Services for your Reference Family (ies)	35
3.4. Step 4: Establishing the Thresholds	39
3.5. Step 5: Determining the Gross Income Required	40
3.6. Step 6: Determining the Hourly Wages Needed to Meet Gross Income Amounts Required to Cover Affordability Threshold	48
3.7. Step 7: Determining the Gross Income Amounts Required to Cover Affordability Threshold for Different Household Sizes	48
3.8. Step 8: Beyond the Affordability Study	50

Introduction

As the cost of basic needs increase, affordability becomes a serious concern. There are a number of ways of measuring poverty in Canada, but few of these measures reflect differences in affordability issues for basic needs such as shelter, food, and clothing across various communities, especially for smaller, rural, or Northern communities. As well, few of the measures of poverty incorporate concepts of social inclusion and what it actually costs to participate in one's community. SPARC BC believes that affordability studies provide communities with a realistic sense of what it costs to live and participate in one's community. This knowledge can help community planners and businesses gain a better understanding of the incomes required to ensure that their communities are affordable for their residents and employees, which helps to alleviate poverty and income disparities and promote social inclusion for all members of the community.

SPARC BC has typically taken an affordability study approach to our work around measuring the adequacy of government income programs, such as welfare rates and income supports for government assisted refugees. The idea to produce a guidebook on conducting community affordability studies came out of an affordability study that SPARC BC conducted for the Resort Municipality of Whistler. Through this project and other SPARC BC income security research projects, we have learned some valuable lessons from communities regarding the importance of affordability:

- The needs identified by communities will vary across space and time – what one community deems essential for affordability will not necessarily be of great consequence to another community.
- Eliminating poverty benefits not only individuals and families, but the community as a whole.

With these lessons in mind, this guidebook hopes to serve as a tool for communities who are ready to address issues of poverty and low-income. This guide will escort your organization through a process of identifying a level of income that your community deems to be a suitable standard for your members to live.

1.1 Who Is This Guidebook For?

This guidebook is intended for organizations who are considering conducting an affordability study. Mainly, the guidebook is best suited for:

- Community-based non-profit organizations, especially social planning councils;
- Planning departments, especially social planners, within municipalities.

Ideally, your organization should be concerned with making your community affordable and livable for all its residents.

1.2 What Is Included in This Guidebook?

In addition to this introductory section, there are two other sections. The following section provides brief discussions about how poverty is measured in Canada and explains affordability studies. The third section lays out several options for developing a community-specific affordability study methodology. The options take into consideration ranges in the resources available and the existing knowledge of the team taking on the project. Step by step instructions are provided for executing the various aspects of the proposed method.



2. Understanding Poverty and the Role of Affordability Studies

This section provides a brief discussion about the different ways that poverty is measured in Canada.

2.1 How Can Poverty be Measured?

Measurements of low-income in Canada set an income-based threshold below which a family or individual would lack the income necessary to meet their basic needs. Traditionally, the thresholds are described as either absolute or relative in nature.

Absolute measures of low-income tend to focus on a lack of basic necessities. Generally, this is done by comparing a person's income to the cost of a "basket" of goods and services meant to represent the essentials required for daily life such as food, clothing and shelter.

The *Market Basket Measure (MBM)* developed by Human Resources Development Canada is Canada's absolute measure of low-income. The MBM is a consumption-based measure that determines the cost of a basket of good and services, based on both the actual costs of items and on what "average" citizens consume. Families or individuals whose disposable income falls below the income necessary to purchase the basket are considered low-income. The MBM has been calculated for a number of large and medium sized communities across the country. The MBM includes thresholds for food, clothing, shelter, transportation, and other goods and services.

Relative measures of poverty set the threshold at which an individual or family is considered to be living below average living standards when compared to the general population. The threshold is calculated by comparing a family or individual's total income (either before or after tax) and spending patterns with those of the general population. Those with lower income but who spend a larger portion of their income than the "average" family or individual on essential goods and services are considered to be living in relative poverty.

The Low-Income Cut-Offs (LICOs) calculated by Statistics Canada are the most commonly used tool to measure poverty in Canada. A LICO sets the threshold below which a family is likely to spend significantly more of its income on basic necessities than the average family. The calculations are based on data from the Survey of Household Spending. This survey establishes the average amount residents of Canada spend on food, clothing and shelter, taking into account variation in different sized communities. The average amount is expressed as a percentage of gross income. The LICO methodology then adds 20 percentage points to the average. The income at which a family typically spends more than the average family on basic necessities then becomes the LICO. LICOs are produced for seven family sizes and five community sizes, forming a set of 35 cutoffs.

The Low Income Measure (LIM) measures inequality based on the distribution of income. In Canada, the LIM is based on 50% (a fixed percentage) of median adjusted income. "Adjustments" can be made based on family size. No adjustments are made for geographic region or community size. LIMs are commonly used to develop international comparisons of poverty rates.

For the purpose of this guidebook, SPARC BC has selected the Market Basket Measure (MBM) as the methodology on which to focus. This method was not chosen because it is *better* than any other measure of poverty. The MBM methodology is just a framework for measuring cost of living and determining adequate income in a community. The limitations of using this methodology will be discussed later in this guide.

2.2 What Are Community Affordability Studies?

Affordability studies aim to measure the affordability of a community by calculating the cost of living, based on a locally customized basket of basic goods and services. Once the cost of living is established, the gross incomes required to cover the cost of living are determined. These studies can then compare actual incomes in the community to figure out if people in the community are earning incomes that are adequate to cover their basic living costs.

Affordability studies typically involve selecting one or more reference families and pricing out how much it would cost for that household type to purchase basic goods and services such as food, shelter, clothing, transportation, and other costs of living (like school and reading materials or non-prescription medication). Some communities may wish to include other costs that are key to community participation, such as recreational activities.

Affordability studies can be updated year after year by either pricing out the same items in the original report at the time of the update or by adjusting the original prices to reflect inflation. Updating the studies allows the community to track how they are doing over time in terms of ensuring that their communities are affordable.

2.3 Why Do Communities Conduct Affordability Studies?

Affordability studies can be used for the following purposes:

1. Raise public awareness about what it costs to participate in one's communities
2. Inform living wage initiatives
3. Inform initiatives that advocate for raising income assistance rates
4. Inform community development initiatives that aim to help families and individuals meaningfully participate in community life.
5. Inform programs that aim to build a stronger local economy

Below are some examples of affordability studies and related initiatives.

Living Wage Initiatives - To jumpstart a living wage campaign, organizations such as *Public Interest Alberta* have used an affordability study to define a living wage. Typically, a living wage initiative is based on the notion that people who work full-time should earn enough to meet the needs of their household. Often the objective of defining a living wage is to draw attention to the disconnect between current minimum wages and costs of living. As such, the end goal of conducting affordability studies to enhance living wage campaigns is to protect working families from poverty and to increase the minimum wage to a living wage.

Advocating for Higher Social Assistance Rates – SPARC BC, for example, uses the MBM methodology to conduct an affordability study to examine the adequacy of social assistance rates in the province of British Columbia. The most recent report, “Still Left Behind” (February 2008), led to an evaluation which determined that social assistance rates are too low to sustain families and individuals in need of income support. The report made eleven recommendations to the Ministry of Employment and Income Assistance to revise its service plans and reform welfare policies.

Building a Stronger Local Economy – Successful communities can strengthen their local economy by decreasing the gap between rich families and poor families. Some community organizations, such as *Opportunities Waterloo Region*, recognize the strength in their community's economic growth. However, it is evident that while some families in the community benefit from economic growth, some working families still do not make enough money to “keep up.” An affordability study helps communities like the Waterloo Region set a benchmark (or income threshold) which every working family should be able to obtain.

Enriching Community Life – Families need more than just the basic physical essentials to survive in order to participate in the day to day life of their community. However, communities are not homogenous in their values and goals. Issues of importance may vary by community. Community groups such as *Whistler 2020* acknowledge that part of sustainable development in a community involves making it affordable and livable for residents. Whistler 2020 created the *Whistler Affordability Task Force* and, together with SPARC BC, conducted an affordability study which identified affordable living standards set out by residents of Whistler.

Inter-Agency and Inter-Occupational Networking – Getting “others” on board and involved in the issue of community affordability can result in partnerships that are invaluable to making communities more affordable. Sustainability is more than just a strategic plan, it is about the process involved and about how a community envisions its own future. The *Quality of Life CHALLENGE*, led by the *Community Council of Victoria* and as a partner to



Vibrant Communities, is built on the experience and knowledge of individuals and organizations from all income levels. The CHALLENGE has worked to bring together employers and employees alike with the common goal of creating a sustainable quality of life and reducing poverty for everyone in Greater Victoria. Part of quality of life is affordability and the CHALLENGE has conducted an affordability study to define a living wage for their community. By fostering relationships within and between organizations and various professions, the CHALLENGE has created substantial change in the community of Victoria and surrounding area through education, leadership and a vision for change created by the community.

3. Options and Steps for Conducting Affordability Studies

This section explains the basic steps involved in conducting an affordability study in your community. The options and steps outlined below assume 2006 is the current year.

3.1. Step 1: Planning the Process

Creating a threshold that is meant to demonstrate where low-income begins is a process riddled with arbitrary decisions. Own them. Be clear about the process of decision-making and about what values inform your community initiative.

Your organization has identified the need to gain a more comprehensive understanding of affordable living. So...now what?

The first thing the project initiators need to do is pull together a team and set up some meeting times. There are many activities that must be completed in this first step, including:

- Reach consensus on the goals of the project
- Determine the relevant stakeholders and who else needs to be involved in the project
- Identify the roles for all the stakeholders in the project
- Make sure to assign a project leader to oversee and coordinate the project and make sure that all the pieces are moving along according to schedule
- If funding is not already secure, identify funding sources and other available resources



-
- Reach consensus on the methodology for conducting the affordability study
 - Assign tasks to the appropriate stakeholders based on the agreed upon methodology
 - Will this be done internally by staff?
 - Will outside consultants be hired to complete some of the tasks?
 - You may want to engage some community volunteers, such as members from community-based social planning organizations and municipal staff members to help build capacity around conducting affordability studies. Make sure that the volunteers can actually commit enough time to the project so that the project does not get held up waiting for them to complete their tasks.
 - Develop a timeline for the completion of the various tasks
 - Circulate a summary of the decisions made at the meeting about the goals, the roles of the various stakeholders, the methodological approach to conducting the affordability study, and task assignments with timelines after the meeting to ensure that everyone is on the same page.

3.2. Step 2: Selecting the Items in Your Community's Basket of Goods and Services

3.2.1. Select your reference family

First of all, you need to decide on a “reference family.” Will you be calculating the cost of living in your community for an individual, a family or both? Who is your family composed of? How many people? How many adults and how many children? How old are they? Below, we offer a few options for your consideration.

Option 1: Using the Market Basket Measure's Reference Family

The Market Basket Measure created by Human Resources Development Canada is calculated for a reference family of one male and one female adult aged 25-49 and two children, a girl and a boy aged 9 and 13.¹ This family size and composition was chosen because it is statistically the most common profile, for Canadian families.

The cost of the basket of goods and services for the MBM reference family can be adjusted for differences in household size and composition using the Low Income Measure (LIM) multipliers. These multipliers factor in economies of scale that are realized as a household increases in size. The multipliers also factor in variance in consumption patterns for people of different age groups. For example, the multipliers could be applied to determine the amount it would cost for the reference family to live in your community. It could also be used to determine how much it would cost a single parent with a teenage child, or a single adult, or a couple with no children to live in your community.

An equivalence scale provides multipliers that will allow you to make your basket applicable to other family sizes. These multipliers are based on economies of scale, recognizing that larger families can benefit from economies of scale by sharing items in their basket, such as a car, while a single person cannot.

The scale used by the Market Basket Measure assigns values to family members as follows:

- The oldest person in the family receives a factor of 1.0.
- The second oldest person over the age of 16 years receives a factor of 0.4.
- All other family members 16 and over receive a factor of 0.4.
- All other family members under 16 receive a factor of 0.3.

1. Hatfield, Michael (2002). Constructing the Revised Market Basket Measure. *Applied Research Branch Strategic Policy Human Resources Development Canada.*





Using this scale, our reference family (with 2 adults and 2 children under the age of 16), has a value of 2.0 ($1 + 0.4 + 0.3 + 0.3 = 2$). Assuming the same basket is applicable, a single adult then, would have a value of 1, half that of the family of 4. Therefore, the cost of the basket for a single person would be the cost of the reference family's basket divided in half.

Let's try a more specific example. Our reference family has a value of 2. Let's assume we have calculated their basket at a cost of \$25,000 per year.

If a family of 4, including 2 adults and 2 children under the age of 16 can live in our community at the cost of \$25,000 for one year, how much would it cost for a family of 5 which includes 2 adults and 3 children aged 17, 12 and 6?

First, let's determine the value of the family of 5 described above:

Oldest adult =	1	+
Second adult =	0.4	+
17 year old =	0.4	+
12 year old =	0.3	+
6 year old =	0.3	
Total	2.4	

Therefore, according to the equivalency scale, our family of 5 has a value of 2.4. If we divide the value of the reference family by the value of our family of 5 ($2.4 \div 2.0 = 1.2$), we will obtain the difference by which we need to adjust the cost of the basket. From here, we would multiply the reference family cost of living (\$25,000) by 1.2, so the family of five would have a cost of living of \$30,000.

Let's try one more example with a different family size. The cost of living for the reference family is still \$25,000. To figure out the cost of living for a single parent and two children under the ages of 16 years, we do the following:

Adult =	1	+
First child =	0.3	+
Second child =	0.3	+
Total	1.6	

So, we divide 1.6 by 2 to get 0.8. This means that the single parent with two children under the ages of 16 require 80% of what the reference family needs for the cost of living. In other words, the cost of living for the single parent family is \$20,000.

Option 2: Designing Your Own Reference Family

While the reference family used in the Market Basket Measure's calculations is statistically the most common household type for the Canadian population, this may not be the case for your community. Your community might have a high percentage of seniors living on their own or your community might be a university town, where there is a large proportion of households that have several students living together in one house. You want to select a reference family that reflects the most common household type in your community.

This method might be more desirable for some communities rather than simply using the LIM multipliers to figure out the costs for different household sizes and compositions, as in some cases the items required in the basket of goods and services might be very different for certain family types. For example, the needs of a student would be very different than the needs of a senior. The basket would likely need to include school supplies, books, and tuition fees, whereas a household with a single senior might have more health related costs.



Option 3: Using Multiple Household Types as Your Reference Families

While the most common household type might still be the MBM's reference family, other household types might be common in your community. It's okay to select more than one household type as your reference family for which to measure the cost of living in your community. For example, in the Resort Municipality of Whistler, there are a number of two parent families with two children; however, there are also a number of youth who live in the community only during the community's ski season. The Resort Municipality of Whistler decided to price out the cost of living for two reference families: one with two parents and two children and another for a youth living Whistler for only 6 months of the year. Creating multiple reference families is more work, but it might be more useful to your community in that it will better reflect the realities of your community.

3.2.2. Select the Items in the Community's Basket of Goods and Services

Ultimately, the contents of the basket are dependent upon the choices your community makes regarding what is vital to their day to day community life. There are, of course, a few basic necessities which will impose themselves on every basket. What should go into your community's basket of goods and services? What should every person in your community be able to afford? How do you make these decisions?

Option 1: Using the Market Basket Measure Basket of Goods and Services

The key components of the MBM basket of goods and services are:

- Food (based on the National Nutritious Food Basket)
- Clothing and Footwear (based on Winnipeg's Acceptable Level of Living clothing and footwear basket and adjusted for special and seasonal differences)
- Shelter (average cost of a two-bedroom and three-bedroom apartment)

-
- Transportation (in urban centres consists of the annual cost of two monthly adult transit passes plus one round trip taxi ride; in other areas transportation consists of cost of paying for and operating a five-year-old Chevy Cavalier including 1500 litres of regular gasoline, legally-required vehicle insurance and license fees, a tune up and two oil changes)
 - Other Goods and Services

Because spending on the following items varies widely by households, the MBM basket of goods and services does not include out-of-pocket spending for:

- child care
- non-insured but medically prescribed health-related expenses (ie. dental, eye glasses, prescription drugs, hearing aids etc.)

Option 2: Customizing the Market Basket Measure of Goods and Services

While items such as food, clothing, shelter are basic necessities, your community may wish to customize the basket of goods and services to reflect other costs that are considered necessary to live and participate in your community. For example, the Resort Municipality of Whistler decided to include a number of recreational items, such as ski passes and ski equipment because many people decide to live in Whistler because of the recreational opportunities.

A committee of community stakeholders can be brought together to identify additional items that they consider to be necessary for participation in community life.

Tip: A brainstorming session may reveal a lot of potential items to include and there could be some disagreement about what is absolutely needed to live and participate in your community. A technique we often use to help prioritize and build consensus is a dot-mocracy exercise. Stakeholders present at the meeting where the basket is being finalized are given a set of stickers (each person gets the same amount). The participants are asked to place their stickers beside the items that they feel are most important for the basket. They can place all their dots on one item if they feel very strongly that it should be included or they can spread them around. The items with the most dots will be the additional items in the basket of goods and services.

This option not only allows you to ensure that the items selected are reflective of what households need to live and participate in your community, but it also allows you to customize baskets for different household types.

3.3. Step 3: Pricing Items in the Basket

Using the agreed upon methodologies, the items selected for your community's basket of goods and services will have to be priced out. Costs should be documented in Excel tables, which will be kept as records for benchmarking purposes.

The following sections provide examples of how to calculate the costs of common components of a basket of goods and services. Different options are provided, which will allow you to select a credible methodology that fits within your budget. These options serve as the basis for deciding upon your affordability study methodology.

3.3.1. Price out the Cost of Food for your Reference Family(ies)

Option 1: Updating the MBM Food Component

The MBM provides the cost of food for its reference family for several communities across the country. If you're on a tight budget for this project, an economical option for determining the cost of food is adjusting the MBM food cost for your community using the consumer price index (CPI) to factor in any changes in the cost of living that might have occurred since the MBM was last updated. Here are the steps for this option:

1. Find the food amount for your community or the most appropriate community size listed in the appendix of the most recent MBM report.
2. Determine the consumer price index (CPI) changes that will need to be applied to the MBM year of the food amount in order to account for inflation.

a. The CPI can be found on the Statistics Canada website at <http://www40.statcan.ca/101/cst01/econ09k.htm>.

b. Using the CPI changes at the provincial level (for British Columbia), calculate the CPI FOOD difference between the MBM year you are using and the current year. In order to determine the percent difference, you must calculate:

$$\frac{[(\text{Current CPI for Food in BC} - \text{MBM Year for Food in BC}) / \text{MBM Year for Food in BC}] * 100}{}$$

For example, if in BC in 2002, the CPI for Food was 100.0 and in 2006 (the most current year available), the CPI for food in BC was 103.1. In order to determine the percent difference in terms of CPI changes for 2006 and 2002, we do:

$$(103.1 - 100.0) / 100.0 = 0.031 * 100 = -3.1\%$$

This means that we must apply a 3.1% increase to the 2002 MBM cost of food for your community in order to determine the 2006



(current) cost of food in your community. If the 2002 MBM cost of food for your community was \$2,302, the 2006 (current) cost of food in your community would be:

$$\begin{aligned} & \$2,302 \text{ (2002 MBM cost of food in your community)} * 1.031 \\ & (1 + \text{the \% difference between 2002 and the current year of 2006}) \\ & = \$2,373.36 \end{aligned}$$

This option is best if you are using the MBM reference family as your community's reference family.

Remember: The MBM costs for food listed in the MBM report are for the reference family of two parents and two children. If you are working with a different reference family, you will have to apply the multipliers in Section 3.2.1 before you figure apply the CPI adjustments to determine the current cost of food in your community.

If you're really crunched for time or resources:

There is an easier way to determine changes in the cost of living. The Bank of Canada provides an online inflation calculator that is quick, free and easy to use. Although simple, the method is not region specific. The inflation calculator can be found at the following link:

http://www.bankofcanada.ca/en/rates/inflation_calc.html

All you need to do is type in the cost of your basket item and the year the data was obtained in the boxes provided under "A 'basket' of goods and services that cost" and the actual cost for the current year will appear below along with the percentage change.

Option 2: Using the Cost of Eating Report Food Costs for Your Health Region

An even more economical option for calculating the cost of food is to use the Dietitians of Canada's Cost of Eating Report for your health region. The cost of the nutritious food basket was established for BC by having the basket priced in stores across the province. For the first time in 2007, the report included food costs for a reference family (the same family as the MBM) by health region. In previous reports, the cost of eating was only calculated for BC as a whole. Using the cost of eating for your health region may give you a more accurate estimate of the cost of eating in your community.

Option 3: Pricing the Items in National Nutritious Food Basket for Your Community

If you have lots of volunteers, you can send people out with the list of items in the National Nutritious Food Basket. The team of researchers could go to various grocery stores in your community and fill in the following table indicating the cost of the items on the list provided.

Item	Description	Brand	Price/Unit	Price
2% Milk, fresh	4L jug			
Yogurt	fruit-flavoured, 2% M.F. or less, 500g tub			
Medium Cheddar Cheese	price pre 100g (price mild cheddar if medium unavailable)			
Grade A large eggs	1 dozen			
Medium ground beef	price per 100g (price for regular if medium is unavailable)			
Whole chicken	price per 100g			
Sliced black forest ham (deli)	price per 100g			

Canned flaked light tuna, water packed	170g tin			
Baked beans in tomato sauce	454g			
Peanut butter	500g or regular smooth or chunky			
100% whole wheat bread	675 g			
All purpose white flour	2.5kg bag			
Macaroni noodles, dry	900g, box			
Long grain white rice, converted or parboiled	900g package, non-instant			
Corn flakes cereal	675g box			
Shreddies cereal	725g box			
Oranges (not mandarin or clementine)	loose, price per kilogram			
frozen orange juice, concentrate	355mL can			
Fresh tomatoes (not hothouse)	loose, price per kilogram			
McIntosh apples	loose, price per kilogram (if unavailable price red delicious apples)			
Fresh potatoes, russets	loose, price per kilogram			
Broccoli	price per kilogram and/ or for one bunch			
Fresh carrots, bagged	2lb bag, not peeled, not baby carrots			

Iceberg (head lettuce)	price per kilogram and/or one head			
Romaine lettuce	price per kilogram and/or one head			
Butter (salted)	454g			
Canola oil	1L bottle			
Miracle Whip	500mL jar			
White sugar	2kg bag			
Strawberry jam with pectin	500mL jar			

Once all the data is collected, calculate the average price for the total list of food. The food provided in this list is considered sufficient for one week for the reference family of two parents and two children. To determine the monthly amount, divide the weekly total by 7 (7 days in a week) and multiply by 30 (for the number of days in the month – as there are not always 4 weeks exactly in a month).

Tip: Consistency is essential for this option. Make sure to tell your research team to choose the cheapest, non-sale, option that fits the item description.

Option 4: Pricing a Customized Food List

You might feel that the items in the National Nutritious Food Basket do not reflect the regular diet of members of your community. For instance, you may wish to customize your food component to ensure that your list of food items is culturally appropriate for the people living in your community. If this is the case, bring together a committee of stakeholders to decide what your reference family would typically eat in a week. Be sure to specify quantities and other necessary descriptions. Then take your list of items to the local grocery stores and figure out what each of those items would cost your reference family for the week at each grocery store sampled.



Once all the data is collected, calculate the average price for the total list of food. The food provided in this list is considered sufficient for one week for the reference family of two parents and two children. To determine the monthly amount, divide the weekly total by 7 (7 days in a week) and multiply by 30 (for the number of days in the month – as there are not always 4 weeks exactly in a month).

3.3.2. Price out the Cost of Shelter for your Reference Family (ies)

Option 1: Using the Canada Mortgage and Housing Corporation's Data

Many communities will be able to use the data collected annually by Canada Mortgage and Housing Corporation's (CMHC) Rental Market Survey. The report is published twice a year in Spring and Fall.

If CMHC releases rental market statistics for your community, follow these simple steps to calculate the average cost of shelter for a rental property in your community.

Step 1 – Your task force or consultant group will need to decide the appropriate size of a rental unit required to house your reference family.

For example, using the MBM reference family size of 4 (an adult couple and 2 children), your task force may decide that a rental unit with 3 bedrooms is necessary. Or, the group may decide that it would be suitable if the children in the family share a bedroom. In this case, a rental unit of 2 bedrooms would suffice. Some organizations, as well as the MBM methodology, use the average of both 2 and 3 bedroom units in the community.

Step 2 - Now that you have determined the appropriate rental unit size, you can use CMHC data to calculate the average cost of shelter in your community.

First, find your community's name in the table for average monthly rental costs. Let's use Abbotsford as an example and let's assume your community has decided that shelter costs should be based on the average price of a 2 or 3 bedroom unit. Simply sum up the average price of a 2 and 3 bedroom unit for the City of Abbotsford. Then, divide the total of the sum by 2 and record the average price of housing for families in your community. In 2005, the average monthly rent for a two bedroom apartment was \$704 and for a 3 bedroom apartment, it was \$790. Therefore:

$$\mathbf{\$704 + \$790 = \$1494 \div 2 = \$747}$$

Option 2: Calculating the Average Rent on Your Own

If CMHC DOES NOT release rental market statistics for your community, then you will need to calculate the average cost of an appropriate sized rental units in your community. Here is an option for calculating the average rent for your reference family on your own.

The following description of shelter costing follows the method used as part of the Whistler Affordability Study published by SPARC BC.

Step 1 - Your task force or consultant group will need to decide the appropriate size of a rental unit required to house your reference family.

For example, using the MBM reference family size of 4 (an adult couple and 2 children), your task force may decide that a rental unit with 3 bedrooms is necessary. Or the group may decide that it would be suitable if the children in the family share a bedroom. In this case, a rental until of 2 bedrooms would suffice. Some organizations choose to use the average of both 2 and 3 bedroom units in the community.

Step 2 -Now that you have determined the appropriate rental unit size, you will need to find a source for pricing the size of unit required for your rental family.



First, identify the local newspapers which include classified sections for available rental units in the community.

Sort the ads by contact information to remove duplicates that can occur between local papers or for listings posted for multiple weeks. Determine the median price of the advertised units by unit size.

Let's assume your community has decided that shelter costs should be based on the average price of a 2 or 3 bedroom unit. Calculate the median cost for two bedroom units and for three bedroom units. Combine the median price for a two and three bedroom apartment in your community and divide by two to determine a general shelter cost figure for your reference family.

3.3.3. Price out the Cost of Clothing and Footwear for your Reference Family (ies)

Option 1: Updating the MBM Clothing and Footwear Component

The MBM uses the Acceptable Living Level (A.L.L.), developed for Manitoba by the Social Planning Council of Winnipeg, to determine the cost of a clothing basket. With the data collected by the A.L.L., the MBM uses Statistics Canada's relative spatial indices for clothing and footwear to calculate the price of clothing in ten different metropolitan areas. In British Columbia, the price of clothing is calculated for Vancouver. The MBM also provides estimates for the cost of clothing and footwear for:

- rural BC,
- communities with less than 30,000 people in BC,
- communities with 30,000-99,999 people in BC, and
- communities with 100,000-499,999 people in BC.

The cost of clothing and footwear listed in the MBM will have to be updated using the consumer price index (CPI) to factor in any changes in the cost of living that might have occurred since the MBM was last updated. Here are the steps for this option:

1. Find the clothing and footwear amount for your community or the most appropriate community size listed in the appendix of the most recent MBM report.

2. Determine the consumer price index (CPI) changes that will need to be applied to the MBM year of the food amount in order to account for inflation.

a. The CPI can be found on the Statistics Canada website at <http://www40.statcan.ca/01/cst01/econ09k.htm>.

b. Using the CPI changes at the provincial level (for British Columbia), calculate the CPI CLOTHING AND FOOTWEAR difference between the MBM year you are using and the current year. In order to determine the percentage change, you must calculate:

$$\left[\frac{\text{Current CPI for Clothing and Footwear in BC} - \text{MBM Year for Clothing and Footwear in BC}}{\text{MBM Year for Clothing and Footwear in BC}} \right] * 100$$

For example, if in BC in 2002, the CPI for Clothing and Footwear was 100.0 and in 2006 (the most current year available), the CPI for clothing and footwear in BC was 103.1. In order to determine the percentage change for 2006 and 2002, we do:

$$(103.1 - 100.0) / 100.0 = 0.031 * 100 = 3.1\%$$

This means that we must apply a 3.1% increase to the 2002 cost of MBM cost of clothing and footwear for your community in order to determine the 2006 (current) cost of clothing and footwear in your community. If the 2002 MBM cost of Clothing and Footwear for your community was \$2,302, the 2006 (current) cost of Clothing and Footwear in your community would be:

$$\$2,302 \text{ (2002 MBM cost of Clothing and Footwear in your community)} * 1.031 \text{ (1 + the \% difference between 2002 and the current year of 2006)} = \$2,373.36$$



Remember: The MBM costs for Clothing and Footwear listed in the MBM report are for the reference family of two parents and two children. If you are working with a different reference family, you will have to apply the multipliers in Section 3.2.1. before you apply the CPI adjustments to determine the current cost of clothing and footwear in your community.

Option 2 – Customizing a List of Clothing and Footwear for Your Community

Another way to calculate the cost of a clothing basket for families in your community is to have members of your community participate in choosing the basket items and pricing the items chosen. Be sure to specify quantities and other necessary descriptions.

Remember: If you are selecting your own clothing and footwear component, affordability studies assume that the reference family already has a basic wardrobe. The clothing and footwear amounts are just replacement costs, meaning that the items in this component of the basket are only items that would need to be replaced throughout the year.

Some items may need to be replaced during the year, but will last more than the year. If this is the case, make sure to specify the amortization periods and use amortized prices.

Your task force, consultant group or another group of researchers can price the items at the list at several stores you identify in the community that offers lower-priced, quality clothing items and use the average price of the items collected by your researchers to determine the clothing budget in your community.

Below, you will find a list of the clothing categories and the quantity (per year) used by the A.L.L. reference family. This list is not set in stone – you can make changes to reflect the needs you identify in your community. For example, these items were selected for Winnipeg. If you’re living in Vancouver, you might not need long underwear.

Item	Size	Quantity/Year
Runners	Girl (9)	4
Runners	Boy (13)	4
Runners	Man	1 every 2 years
Runners	Woman	1 every 2 years
Dress shoes	Girl (9)	1
Dress shoes	Boy (13)	1
Dress shoes	Man	1 every 3 years
Dress shoes	Woman	1 every 3 years
Sandals	Girl (9)	1
Sandals	Boy (13)	1
Sandals	Man	1 every 2 years
Sandals	Woman	1 every 2 years
Winter Boots	Girl (9)	1
Winter Boots	Boy (13)	1
Winter Boots	Man	1 every 3 years
Winter Boots	Woman	1 every 3 years
Rubber Boots	Girl (9)	1
Rubber Boots	Boy (13)	1
Rubber Boots	Man	1 every 3 years
Rubber Boots	Woman	1 every 3 years
Socks	Girl (9)	20
Socks	Boy (13)	20
Socks	Man	5
Socks	Woman	5
Underwear	Girl (9)	12
Underwear	Boy (13)	12



Underwear	Man	10
Underwear	Woman	10
Bra	Woman	3
Long Underwear	Girl (9)	3
Long Underwear	Boy (13)	3
Long Underwear	Man	1
Long Underwear	Woman	1
Pants	Girl (9)	6
Pants	Boy (13)	6
Pants	Man	2
Pants	Woman	2
Pants (formal)	Man	2
Pants (formal)	Woman	2
Shorts	Girl (9)	5
Shorts	Boy (13)	5
Shorts	Man	2
Shorts	Woman	2
T-Shirts/Shirt	Girl (9)	5
T-Shirts/Shirt	Boy (13)	5
T-Shirts/Shirt	Man	3
T-Shirts/Shirt	Woman	3
Shirt (formal)	Man	2
Shirt (formal)	Woman	2
Sweater/Sweatshirt	Girl (9)	4
Sweater/Sweatshirt	Boy (13)	4
Sweater/Sweatshirt	Man	2
Sweater/Sweatshirt	Woman	2
Pyjamas	Girl (9)	4
Pyjamas	Boy (13)	4
Pyjamas	Man	1
Pyjamas	Woman	1
Bathing Suit	Girl (9)	1

Bathing Suit	Boy (13)	1
Bathing Suit	Man	1 every 2 years
Bathing Suit	Woman	1 every 2 years
Winter Jacket	Girl (9)	1
Winter Jacket	Boy (13)	1
Winter Jacket	Man	1 every 2 years
Winter Jacket	Woman	1 every 2 years
Rain Gear	Girl (9)	1
Rain Gear	Boy (13)	1
Rain Gear	Man	1 every 4 years
Rain Gear	Woman	1 every 4 years
Misc.	Girl (9)	1
Misc.	Boy (13)	1
Misc.	Man	1
Misc.	Woman	1

You can create a similar chart for your researchers to use as a tool when they gather data. The first two columns would remain the same (“item” and “size”). To the right of these two columns, you can include three more blank columns headed with the title of the stores the researchers will be pricing clothing at. For example:

Item	Size	Store #1	Store #2	Store #3
Runners	Girl (9)			
Runners	Boy (13)			
Etc.				
Total per Year				

Once your researchers have gathered all of the data, calculate the average for each item at the various stores surveyed. The sum of the average prices for each item is the cost of clothing and footwear for the year for your reference family. Make sure your cost totals are multiplied according the number of each items required during the year and are distributed appropriately if needed.





Your final table will look like this:

Item	Size	Quantity/ year	Price per unit	Yearly costs
Runners	Girl (9)	4		
Runners	Boy (13)	4		
Runners	Man	1 every 2 years		
Runners	Woman	1 every 2 years		
Total per Year				

3.3.4. Price out the Cost of Transportation for your Reference Family (ies)

Option 1: Updating the MBM Transportation Component

In some communities, buses will take us where we need to go. In others, public transportation is non-existent and the geography of the community makes owning a vehicle essential. The MBM, therefore, uses different items in the transportation component depending on community size. Where adequate public transportation is available, the basket for the reference family uses bus passes, but where it is assumed that there is no public transportation, the basket for the reference family includes a household car.

The MBM uses the following assumptions for deciding which transportation items to use:

- **Urban areas 500,000+ and Urban areas 100,000 – 499,999** - The public transportation component applies since transit systems are present in every urban centre in these categories.
- **Urban areas 30,000 – 99,999, except Charlottetown** - Of the 49 centres in this category, 46 have public transit systems. It is proposed that the public transportation component be applied to all centres in this size class except for Charlottetown.
- **Charlottetown, P.E.I.** - Charlottetown is not served currently by public transit. Since Charlottetown is the only centre of this size in the province, it is recommended that the private transportation component be applied.
- **Urban areas less than 30,000 and rural areas** – The private transportation component applies to these two categories. There will be a separate private transportation calculation for each province and territory.

In British Columbia, the price of transportation is calculated for Vancouver. The MBM also provides estimates for the cost of transportation for:

- rural BC,
- communities with less than 30,000 people in BC,
- communities with 30,000-99,999 people in BC, and
- communities with 100,000-499,999 people in BC.

The cost of transportation listed in the MBM will have to be updated using the consumer price index (CPI) to factor in any changes in the cost of living that might have occurred since the MBM was last updated. Here are the steps for this option:

1. Find the transportation amount for your community or the most appropriate community size listed in the appendix of the most recent MBM report.

2. Determine the consumer price index (CPI) changes that will need to be applied to the MBM year of the transportation amount in order to account for inflation.

a. The CPI can be found on the Statistics Canada website at <http://www40.statcan.ca/101/cst01/econ09k.htm>.

b. Using the CPI changes at the provincial level (for British Columbia), calculate the CPI TRANSPORTATION difference between the MBM year you are using and the current year. In order to determine the percent difference, you must calculate:

$$\left[\frac{\text{Current CPI for Transportation in BC} - \text{MBM Year for Transportation in BC}}{\text{MBM Year for Transportation in BC}} \right] * 100$$

For example, if in BC in 2002, the CPI for transportation was 100.0 and in 2006 (the most current year available), the CPI for transportation in BC was 103.1. In order to determine the percent difference in terms of CPI changes for 2006 and 2002, we do:

$$(103.1 - 100.0) / 100.0 = 0.031 * 100 = 3.1\%$$

This means that we must apply a 3.1% increase to the 2002 cost of MBM cost of transportation for your community in order to determine the 2006 (current) cost of transportation in your community. If the 2002 MBM cost of transportation for your community was \$2,302, the 2006 (current) cost of transportation in your community would be:

$$\begin{aligned} & \$2,302 \text{ (2002 MBM cost of transportation in your community)} * 1.031 \\ & (1 + \text{the \% difference between 2002 and the current year of 2006}) = \\ & \qquad \qquad \qquad \$2,373.36 \end{aligned}$$

Remember: The MBM costs for transportation listed in the MBM report are for the reference family of two parents and two children. If you are working with a different reference family, you will have to apply the multipliers in Section 3.2.1. before you apply the CPI adjustments to determine the current cost of transportation in your community.

Option 2: Customizing the Transportation Component for Your Community

You may wish to develop your own combination of transportation options for your reference family that reflects the realities of your community. You will have to consider both the *availability* and the *practicality* of various modes of transportation in your community and determine which your task force or consultants feel is vital to community life and families' needs where you live.

Your group can start by discussing the following questions:

- Is it reasonable to expect families in our community to meet their needs using public transportation (bus and taxi services)?
- Is it important for families in our community to have alternate economical or environmental means of transportation (for example, commuter bicycles)?
- Is it necessary for families in our community to have private means of motorized transportation to meet their needs?

Tip: If members are undecided and a consensus cannot be reached, it may be helpful to ask everyone to try alternate modes of transportation (such as bus service) for a week to see firsthand if they are able to perform the functions necessary to maintain their family without a vehicle in your community.

Once your task force has decided on the items to include in the transportation component of your basket, start making phone calls. If you need bus passes or bus tickets for your reference family, contact your local public transit provider to determine the monthly costs. Contact your local taxi service to figure out the price of taxi rides. If you are calculating the costs for private transportation, make sure to remember:

- Purchase price (amortized over the number of years the family will have the car)
- Interest charges for the purchase price (for one year)
- Annual driver's license fee
- Annual vehicle registration fee
- Annual vehicle insurance
- Fuel
- Maintenance

Some tips for determining the prices of items related to operating a private car:

• Purchase Price and Insurance Costs

The MBM basket specifies a four-door, four-cylinder Chevrolet Cavalier as the vehicle included in the basket. The car should be five years old and it should be replaced every five years. The purchase price also includes the cost of interest on a 36-month loan for the vehicle. Your community can choose to follow the MBM methodology precisely, or you may choose to make some changes to tailor private transportation component to meet your community's needs. For example, a northern community may decide that a five year old cavalier is not sufficient to meet the transportation needs of the family in the winter. Or, you may decide that a five year car loan is a more realistic option for families and calculate the interest rate costs of the car based on a 60-month loan instead. In any case, here are some options for pricing the cost of the car and the interest rate for the loan of your choice.

• Driver's License Fee

Provinces and territories impose license fees differently. Your organization can check with the Driver's License issuing agency in your province or territory

for the cost of licensing fees. Currently, the British Columbia the Insurance Corporation of British Columbia (ICBC) charges drivers \$75 to renew their license every 5 years. To account for the annual cost of the license fee using the example of BC, the fee can be divided by five. Therefore, in BC, the annual license fee would be \$15.

- **Vehicle Insurance**

You can obtain a quote (or quotes) from the insurance provider(s) in your community to determine the cost of vehicle insurance for the type of car chosen. In British Columbia, for example, ICBC is the insurance provider and a quote would be obtained through one of the brokering Autoplan offices.

- **Fuel**

Determine the number of kilometers your family will need to travel in their car during the month or year. The price of gas is variable over time and space. The price of gas varies drastically. You can use a point-in-time approach to determine the cost of fuel by taking the cost of fuel on a particular day at a particular in gas station and making sure that updates are done on the same day at the same station in the future. Otherwise, you can track prices over a period of time (a week or a month) at one station or various stations and determine the average.

- **Maintenance**

The MBM, for example, includes the price of two annual oil changes and one annual tune-up. To calculate maintenance fees specific to your community, contact automotive service providers to obtain quotes for the cost of an oil change and a tune-up. It is best to contact more than one and take the average of the quotes.

3.3.5. Determine the Cost of other Goods and Services for your Reference Family (ies)

Option 1: Updating the MBM Clothing and Footwear Component

There are a number of other costs that the reference family must incur during the month or year, such as hair cuts, replacing furniture, reading materials, and costs related to basic social inclusion, such as charitable donations and community centre memberships. The full list included in the MBM is as follows:

- personal care
- household needs
- furniture
- basic telephone service
- reading
- recreation
- entertainment
- school supplies
- envelopes, postage, stamps
- religious and charitable donations
- newspaper subscription
- video rentals
- YM/YWCA memberships
- magazines, books
- tickets for movies and sports events

The MBM methodology does not price out each of these items. Instead, the cost of other goods and services is calculated by using as a proportion of the amount spent on food and clothing/footwear by those in the second income decile.

In British Columbia, the price of other goods and services is calculated for Vancouver. The MBM also provides estimates for the cost of other goods and services for:

1. rural BC,
2. communities with less than 30,000 people in BC,
3. communities with 30,000-99,999 people in BC, and
4. communities with 100,000-499,999 people in BC.

The cost of other goods and services listed in the MBM will have to be updated using the consumer price index (CPI) to factor in any changes in the cost of living that might have occurred since the MBM was last updated. Here are the steps for this option:

1. Find the other goods and services amount for your community or the most appropriate community size listed in the appendix of the most recent MBM report.
2. Determine the consumer price index (CPI) changes that will need to be applied to the MBM year of the other goods and services amount in order to account for inflation.

a. The CPI can be found on the Statistics Canada website at <http://www40.statcan.ca/101/cst01/econ09k.htm>.

b. Using the CPI changes at the provincial level (for British Columbia), calculate the CPI OTHER GOODS AND SERVICES difference between the MBM year you are using and the current year. In order to determine the percent difference, you must calculate:

$$\left[\frac{\text{Current CPI for Other Goods and Services in BC} - \text{MBM Year for Other Goods and Services in BC}}{\text{MBM Year for Other Goods and Services in BC}} \right] * 100$$


For example, if in BC in 2002, the CPI for other goods and services was 100.0 and in 2006 (the most current year available), the CPI for other goods and services in BC was 103.1. In order to determine the percent difference in terms of CPI changes for 2006 and 2002, we do:

$$(103.1-100.0)/100.0 = 0.031*100 = -3.1\%$$

This means that we must apply a 3.1% increase to the 2002 cost of MBM cost of other goods and services for your community in order to determine the 2006 (current) cost of other goods and services in your community. If the 2002 MBM cost of other goods and services for your community was \$2,302, the 2006 (current) cost of other goods and services in your community would be:

$$\begin{aligned} &\$2,302 \text{ (2002 MBM cost of other goods and services in your} \\ &\text{community)} * 1.031 \text{ (1 + the \% difference between 2002 and the} \\ &\text{current year of 2006)} = \$2,373.36 \end{aligned}$$

Remember: The MBM costs for other goods and services listed in the MBM report are for the reference family of two parents and two children. If you are working with a different reference family, you will have to apply the multipliers in Section 3.2.1. before you apply the CPI adjustments to determine the current cost of transportation in your community.

Option 2: Using the MBM Methodology to Determine the Cost of Other Goods and Services for Your Community

As mentioned before, the cost of other goods and services is determined by taking a certain proportion of the cost of food and clothing/footwear. You can also do this in your community. You will have to determine what households in the second income decile spend on other goods and services as a proportion of their food and clothing/footwear expenditures. To get this information, call Statistics Canada and ask for assistance. You will likely have to purchase the Survey of Household Spending. This information will provide

you with the current data on how the average household in the second income decile is spending their money. Add up how much the average household in the second income decile is spending on other goods and services. Then add up how much this household is spending on food and clothing/footwear. Next divide your total for spending on other goods and services by spending on food and clothing/footwear to determine the proportion of food and clothing/footwear that is spent on other goods and services. This calculation will give you a decimal number. Multiply the number by 100 to determine the percentage.

For example, the Survey of Household Spending shows that the average household in the second income decile spends \$5,000 on other goods and services, \$4,500 on food, and \$2,500 on clothing/footwear. Here are the calculations:

$$\frac{\$5,000}{(\$4,500+2,500)}$$

If you multiply the results by 100, you will find that the other goods and services expenditures for the average household in the second income decile represents 67% of their food and clothing/footwear expenditures.

Once you have determined the percentage of food and clothing/footwear that the average household in the second income decile spends on other goods and services, you can apply that same percentage to your community's food and clothing/footwear components to determine the cost of other goods and services in your community. Simply add up the cost of food and clothing/footwear in your community take the appropriate percentage of that amount.

For example, you have already determined that the average household in the second income decile spends 67% of its total food and clothing/footwear costs on other goods and services. So, if the cost of food in your community is \$3,000 and the cost of clothing/footwear is \$2,000, the cost of other goods and services would be calculated in the following way:

$$\$3,000 + \$2,000 = \$5,000 \times 67\% = \$3,350$$

Therefore, the cost of other goods and services in your community is \$3,350.

Option 3: Customizing Your Own Items for the Other Goods and Services Component of Your Community's Basket

Your community might have unique needs in terms of other goods and services. For example, in the Resort Municipality of Whistler, recreation is an important part of living in that community. Therefore, this community will need a much more extensive recreation basket to include ski equipment and passes, etc. If your community has a number of senior citizens, this component of your basket might include more out-of-pocket expenses for non-prescription medication. Your task force can select the items that reflect the needs of your community. Your team will then have to price out all of these items, so obviously this option is much more time consuming and resource-dependent.

3.4. Step 4: Establishing the Thresholds

Once the cost of all the components in your basket have been priced out, add up the total cost for all of the components. This total will be your affordability threshold, or in other words, what the reference family will have to spend on goods and services to live and participate in your community. The following example shows you how this information can be presented:

Category	Reference Family	
	\$	%
Food	7,536.36	25%
Shelter	11,993.00	39%
Clothing/Footwear	2,239.63	7%
Transportation	1,816.01	6%
Other Goods and Services	6,892.68	23%
Total	30,477.68	

Remember: Make sure when you are calculating the annual costs for each of the components of your basket that you factor in amortization periods and that the costs of multiple units if multiples will be required throughout the year (for example, you might need 10 pairs of socks during the course of the year).

3.5. Step 5: Determining the Gross Income Required

Once you know how much it costs the reference family to live and participate in your community, you need to determine the gross income required so that your reference family will have enough disposable income to cover the cost of the items in your basket of goods and services.

Typically, affordability studies use basic deductions from income and do not include the following items in our calculations: health plans, union dues, child support and alimony payments; out of pocket spending on child care; and non-insured but medically-prescribed health related expenses such as dental and vision care, prescription drugs and aids for persons with disabilities.

The gross income should be able to cover the affordability threshold for the reference family after deductions for: Canadian Pension Plan (CPP); Employment Insurance (EI); and total income taxes paid (federal and provincial).

There are some government benefits that should also be factored into the gross income calculations, as they are a form of government income supports for eligible households. These include the Canada Child Tax Benefit (CCTB) and the GST. There are online calculators available for both of these government benefits to determine how much the reference household would receive through these benefits. In 2006, the federal government also introduced a new benefit called the Universal Child Care Benefit (UCCB), which provides families with children under the age of 6 years with \$100 per month.

The task of figuring out the gross income requires a bit of guessing. Before you begin, it is important to determine the configuration of your workers, as this will have implications for the deductions. For example, if your reference family has two parents, you might have only one parent that works, so this person earns 100% of the income for the household. Alternatively, you might have both parents working, where one earns 60% of the income and the other earns 40% of the household's income. Or you might want to determine the gross income required for both of these household working configurations – whatever best reflects your community.

Here are the steps for determining the gross income required to cover the affordability threshold for the reference family in your community:

1. Locate a tax calculator for the current year (check <http://www.taxtips.ca/taxcalculator.htm>).
2. For now, assume that only one parent is working full-time full-year.
3. This is where the guessing comes in: Follow the instructions on the tax calculator. For the gross income amount from employment, estimate the gross income you think might be required to cover the affordability threshold. The calculator will automatically deduct the federal and provincial income taxes, CPP, and EI. The net income (the gross income minus taxes) will appear near the bottom of the calculator page, in the row called 'Net income after tax (total income less total taxes etc.)'.

a. If the net income looks like it will cover the affordability threshold amount, copy the relevant information into the following table (up to and including the net income row). (Don't forget: we still need to add in the CCTB to get the disposable income (the amount after taxes are subtracted and government benefits are added), so if the net income is slightly under the thresholds for the reference family, that is okay. The CCTB might bring it closer).

Category	Amount
	\$
Gross Income	(-)
CPP	(-)
EI	(-)
Fed tax	(-)
BC tax	(=)
Net Income	(+)
CCTB	(+)
UCCB	(+)
GST Credit	(+)
Disposable Income	(=)

b. If the net income (after taxes) does not look like it will cover the affordability threshold amount, delete the first guess at the gross income required in the tax calculator and put in a slightly higher gross income. Repeat this process until the net income will cover the affordability threshold amount.

4. If the household includes children under the age of 18 years, calculate the CCTB benefits. These two benefits are income dependent. An online calculator can be used to determine the CCTB for the reference family once the gross incomes have been determined. The calculator can be found at <http://www.cra-arc.gc.ca/benefits/calculator/menu-e.html>. Simply follow the instructions on the site. Once the CCTB is determined, enter it in to the appropriate cell in the table.

Category	Amount
	\$
Gross Income	(-)
CPP	(-)
EI	(-)
Fed tax	(-)
BC tax	
Net Income	(+)
CCTB	(+)
UCCB	(+)
GST Credit	(+)
Disposable Income	

5. If your reference family has children under the age of 6 years, it will receive \$100 for the federal government per month per child under the age of 6 years. Multiply the \$100 per month x 12 months to determine the yearly amount of the benefit (\$1,200) and multiply this total by the number of children under the age of 6 years in the household. If there is only one child under the age of 6 years the amount will be \$1,200. If there are two children under the age of 6 years, the amount will be \$2,400. Insert the amount in the UCCB cell in the table.

Category	Amount
	\$
Gross Income	(-)
CPP	(-)
EI	(-)
Fed tax	(-)
BC tax	
Net Income	(+)
CCTB	(+)
UCCB	(+)
GST Credit	(+)
Disposable Income	

6. Determine the GST rebate. Your reference family may be eligible for a GST rebate. There is an online calculator available to help you determine the amount. The calculator can be found at <http://www.cra-arc.gc.ca/benefits/calculator/menu-e.html>. Simply follow the instructions on the site. Once the GST credit is determined, enter it in to the appropriate cell in the table.

Category	Amount
	\$
Gross Income	(-)
CPP	(-)
EI	(-)
Fed tax	(-)
BC tax	
Net Income	(+)
CCTB	(+)
UCCB	(+)
GST Credit	(+)
Disposable Income	

7. The disposable income will be calculated by subtracting the CPP, EI, Federal Tax, and Provincial Tax and then adding the CCTB, UCCB, and GST. If the disposable income is close to the threshold amount for your reference family, you have successfully estimated the gross incomes required for the reference family.

Category	Amount
	\$
Gross Income	(-)
CPP	(-)
EI	(-)
Fed tax	(-)
BC tax	
Net Income	(+)
CCTB	(+)
UCCB	(+)
GST Credit	(+)
Disposable Income	

8. If you would like to use a different working configuration, follow the same steps using the following table instead. For example, you may have one person earning 60% of the income and one person earning 40% of the income:

Category	Amount	
	\$	
Total Gross Income		
	60%	40%
Individual Gross Income	0	0
CPP		
EI		
Fed tax		
BC tax		
Net Income	0	0
CCTB		
UCCB		
GST		
60/40 Disposable Income	0	0

3.6 Step 6: Determining the Hourly Wages Needed to meet to Gross Income Amounts Required to Cover the Affordability Threshold

The hourly wages required to meet the respective gross income amount is calculated by assuming 52 working weeks per year. You will need to determine the working hours configurations for your household. Hourly wages can be calculated for both a 40 hours/week job and a 35 hours/week job.

To determine the hourly wage needed to meet the gross income if the worker is working 40 hours per week, use the following calculation:

$$\text{- gross income required} \div 52 \text{ weeks in the year} \div 40 \text{ hours per week} = \text{hourly wage}$$

To determine the hourly wage needed to meet the gross income if the worker is working 35 hours per week, use the following calculation:

$$\text{- gross income required} \div 52 \text{ weeks in the year} \div 35 \text{ hours per week} = \text{hourly wage}$$

3.7. Step 7: Determining the Gross Income Amounts Required to Cover the Affordability Threshold for Different Household Sizes

To calculate gross income thresholds for different family sizes, you can follow the Luxemburg Income Survey (LIS) method for determining equivalence scales, which is simply the square root of household size. This method is also similar to the MBM method for establishing equivalence scales. The rationale for this method can be traced back to the work of British poverty analyst Anthony Atkinson who, after an extensive study of the many equivalence scales used in developed countries, concluded that the scales tend to converge around the square root of household size.²

2. Hatfield, Michael (2002). Constructing the Revised Market Basket Measure. Applied Research Branch Strategic Policy Human Resources Development Canada.



The calculations of gross incomes for different family sizes therefore involved multiplying the square root (rounded to two decimal points) of a given household size by the total gross income of the reference family and dividing by two.

For example, if the required gross income for the reference family of four people is \$50,000, the amount required for a single person would be calculated by doing the following:

$$\frac{\$50,000 \times 1}{2}$$

Therefore, the gross income required by the single person household would be \$25,000.

Let's try again. If you wanted to figure out the gross income required for a household with a single parent and two children, you would do the following:

$$\frac{\$50,000 \times 1.73}{2}$$

Therefore, the single parent with two children would require a gross income of \$43,250 to cover their costs. You can use the following table to help you out:

Size of Household	Square root
1 person	1
2 people	1.41
3 people	1.73
4 people	2
5 people	2.24
6 people	2.45

3.8. Step 8: Beyond the Affordability Study

You have now successfully developed an affordability study for your community. All of your pricing and gross income calculations should be documented in Excel tables for future reference and for ease of calculations required during the project.

There are some additional options that you might want to consider, depending on your time and resources.

Option 1: Adding Community Comparisons

In order to get a sense of how prices in your community compare to other communities, you may want to do some community comparisons for each component of your community's basket for the reference family. Similar items for food, shelter, transportation, and other goods and services can be priced out in other communities to see how your community compares in terms of affordability thresholds.

Option 2: Determine the Proportion of Households in Your Community Falling Below the Affordability Threshold

Now that you know how much it costs to live and participate in your community, to better understand affordability in your community, it could be useful to find out how many households have incomes that fall below the gross incomes required to cover the affordability thresholds for your community.

This can be achieved through conducting a telephone survey of a representative sample of households in your community. The survey should include questions about the household's gross income and how many people live in the household. You can then figure out how many households for each different household size have gross household incomes that fall below the gross income required for their household type.



Option 3: Updating Your Affordability Study

You may wish to update your affordability study in the future to monitor what it costs to live in the community on an ongoing basis and to determine if any efforts, such as policies or programs put in place to reduce living costs or increase incomes in your community are effective. Your affordability study can be updated in two ways.

1. You will have all the original costs of each component of your basket of goods and services documented in Excel. You can take the original costs and update them using the consumer price index (CPI) to factor in any changes in the cost of living between the current year and the last year when the affordability study was conducted for your community. This is, obviously, the most cost-effective option for updating your affordability study, but not the most accurate.
2. You will have a list of all the items in your basket of goods and services in your Excel tables. You can then repeat your methodology selected in the original report for each component of your basket of goods and services. If you had customized lists of items in some or all of your components, you will have to price out all of these items again. Then follow the same steps for determining the thresholds, gross incomes required, and the hourly wages for your reference family to see if there has been any changes in the cost of living and participating in your community. If you did the survey to determine the proportion of households with gross incomes that are inadequate to cover the affordability thresholds, you should repeat this survey. Just because the affordability thresholds have gone up, it does not automatically mean that more households are going to have incomes that fall short because incomes may have increased. It is helpful to see how household incomes in your community are keeping up in terms of affordability.

Option 4: Mobilize Your Community

Once your affordability study is completed, what should you do with the results? Here are some ideas:

- Create public awareness – help the public understand what it costs to live in the community and the implications
 - Hold public workshops to present the findings
 - Write articles for your local paper to spread the word
- Lobby your municipal government to put policies and programs in place to make the community more affordable
 - Meet one-on-one with sympathetic local politicians to explain the findings of the report and ask them what they are willing to do to help make the community more affordable
 - Present the findings at a council meeting
 - Hold them accountable by stating a target for when the report will be updated – hopefully some policies and programs will be put in place in the meantime and their effects will be seen in future reports
- Work with local businesses or business leaders to figure out what they can do to help make the community more affordable
 - Encourage them to pay a living wage based on the gross incomes required to meet the affordability thresholds
 - Encourage them to subsidize some of the items in your basket of goods and services to help make living and participating in the community more affordable (e.g. if ski passes are part of your basket, ask employers to buy passes in bulk for their employees, so that employees can get a discounted rate or if a monthly night out at the movies is in your basket, ask them to sponsor a community monthly community movie event).



THIS GUIDEBOOK DISCUSSES DIFFERENT WAYS OF MEASURING POVERTY IN CANADA AND DESCRIBES HOW TO CONDUCT AN AFFORDABILITY STUDY FOR YOUR COMMUNITY. BY USING THIS GUIDE BOOK, YOU WILL:

ACQUIRE KNOWLEDGE ABOUT DIFFERENT APPROACHES TO MEASURING POVERTY IN CANADA

UNDERSTAND THE MARKET BASKET MEASURE METHODOLOGY FOR CONDUCTING AFFORDABILITY STUDIES

DEVELOP SKILLS TO DESIGN AND IMPLEMENT AN AFFORDABILITY STUDY FOR YOUR COMMUNITY

ENGAGE OPTIONS FOR HOW TO USE THE RESULTS OF AN AFFORDABILITY STUDY TO ADDRESS ISSUES OF POVERTY AND LOW INCOME IN YOUR COMMUNITY

