

# Cost and Affordability of a Nutritious Diet in Nova Scotia

## Report on 2008 Participatory Food Costing

### Appendices



A Project of the Nova Scotia Food Security Network  
and Mount Saint Vincent University  
in partnership with community partners, and  
the Nova Scotia Department of Health Promotion and Protection,  
Released April 2009

**List of Appendices**

Appendix A - Overview of Food Costing in Canada and Nova Scotia..... 3  
Appendix B - Methods for Collection of Food Costing Data .....5  
Appendix C - Sample Letter to the Grocery Store ..... 10  
Appendix D - National Nutritious Food Basket (NNFB), adapted 2007..... 11  
Appendix E - Methods for Constructing Affordability Scenarios ..... 24  
References ..... 36

## **Appendix A - Overview of Food Costing in Canada and Nova Scotia**

Food costing initiatives have a history in Canada dating back over fifty years.<sup>1</sup> The federal government became involved in food costing in 1973 when it established the *Food Prices Review Board* to address public concern around speculated increases in the cost of food.<sup>2</sup> The Food Prices Review Board, with professional consultation, devised the first food basket to monitor and explain food price increases and make recommendations for government policy.<sup>3</sup>

In 1980, Agriculture and Agri-Food Canada took over monitoring food costs and developed the Nutritious Food Basket, a standardized list of 64 foods. The Thrifty Nutritious Food Basket was later developed to better reflect purchasing patterns of lower income families.<sup>3</sup> These tools were used to provide benchmark information on the cost of a nutritious diet in 18 cities across Canada. The data were widely used by health, nutrition, community, Non-Governmental Organizations (NGO's), and social service agencies for policy, planning, and advocacy work.

Health Canada developed the food costing tool, used in the 2008 food costing, the National Nutritious Food Basket (NNFB) in 1998.<sup>3</sup> In 2009 Health Canada released an updated NNFB, however this was not available at the time of data collection for this study. The NNFB is a standard list of 66 basic foods that meet Canadian nutrition recommendations, reflect the average purchasing patterns of Canadian households, and are palatable and economical. While the NNFB does not constitute a recommended diet in itself, it can be priced to determine the cost of a basic nutritious diet for different age and gender groups. These foods include a variety of choices from the four food groups found in Canada's Food Guide to Healthy Eating, 2007. Together, the 66 food items can be used to prepare a week's worth of meals and snacks that meet nutrient requirements for both adults and children. Costs are kept low by including sale priced items and excluding expensive items, such as prepared meals, restaurant foods, convenience items, organic food, and junk food. Also, non-food items such as toilet paper and household cleaners are not included, making the basket less representative of what the average Canadian would actually purchase at a grocery store in a typical month.

Health Canada does not support regular costing of food in the provinces and northern territories. It is left to community groups, provincial organizations and provincial governments to invest the time and resources necessary to conduct food costing surveys. Some provinces have mandated the costing of the NNFB on an annual or bi-annual basis within government infrastructure. Food costing studies are traditionally conducted by professionals such as public health nutritionists and home economists.

In Nova Scotia, recognizing the need to address the issue of food insecurity, the Nova Scotia Nutrition Council (NSNC) partnered with the Atlantic Health Promotion Research Centre (AHPRC), the Community Action Program for Children (CAPC), the Canada Prenatal Nutrition Program (CPNP) and Nova Scotia Family Resource Centres/Projects (FRC/Ps) to form a core group of committed partners, collectively known as the Nova Scotia Participatory Food Security Projects, who initially came together to complete a participatory food costing project throughout Nova Scotia. In 2002 funding was secured from the Population and Public Health Branch, Atlantic Region, Health Canada to examine the affordability of a nutritious diet in Nova Scotia, using participatory approaches. From 2002 to 2009 funding for over a dozen participatory food security projects was secured by the core partners to build on this work by involving women experiencing food insecurity in order to affect policy change.

Using the NNFB, results from the 2002 food costing indicated that it would cost \$572.90 to feed a family of four a basic nutritious diet in Nova Scotia.<sup>4</sup> When this cost was put into the context of the cost of basic living expenses, these data showed that Nova Scotians on income assistance (IA) or in minimum wage jobs could not afford to buy a basic nutritious food basket. In addition, it was found that the average cost of the NNFB was significantly higher in rural areas and within smaller stores (less than 15,000 sq.ft.) compared with those in urban areas and larger stores.

In 2004, the Nova Scotia Department of Health Promotion and Protection granted funds to the Nova Scotia Participatory Food Security Projects in order to complete a project aimed at developing options for a model to support ongoing food costing in the province and to repeat the 2002 participatory project in 2004/05. The results of the 2004/2005 food costing serve as a comparison to the 2002 results and as further impetus for the continued work that needs to occur in order to bring about change to improve food security in Nova Scotia.

The 2004/2005 participatory food costing study was conducted to build on the evidence collected in 2002. It was recognized that regular monitoring of the cost of a nutritious food basket could be an effective way of assessing whether households could afford a basic nutritious diet over time. As well, the participatory research process used in 2002 was successful in engaging individuals affected by food insecurity, professionals, community-based organizations and policy makers in generating practice-based evidence on food insecurity.

The Department of Health Promotion and Protection have committed funding for annual participatory food costing, using the model proposed by the Food Costing Working Group of the Nova Scotia Participatory Food Security Projects.<sup>5</sup> Food Costing was completed in June 2007 and again in June 2008. The results of the 2007 food costing were released in April 2008 and are available elsewhere.<sup>6</sup> The 2008 food costing findings are the basis of the report: *Cost and Affordability of a Nutritious Diet in Nova Scotia: Report on 2008 Participatory Food Costing.*<sup>7</sup>

## **Appendix B - Methods for 2008 Food Costing Project**

### **Survey Tool**

Health Canada's standardized survey tool, the *National Nutritious Food Basket 1998*<sup>3</sup> was used to collect food-costing data in 2002, 2004/05, 2007 and 2008 as part of the Nova Scotia Participatory Food Security Projects. This tool was validated for use in Nova Scotia prior to the 2002 food costing.<sup>4</sup> Two focus groups were conducted, one in a low-income urban black community, and one in a rural area to ensure low-income families were able to plan menus with the list of foods in the NNFB and that the foods were palatable.

### **Adaption of the NNFB to Examine the Cost and Availability of Local Food**

An addition was made to the NNFB during the 2004/05 food costing project by adding a 'local component' to address the cost and availability of locally produced food products, specifically meat and produce items. On the October 2004 food basket form, costers were asked to record if the food item with the lowest price was produced locally. Local was defined as grown or produced in Atlantic Canada. This component was modified for the June 2005 food basket form, so that costers were asked to note if the lowest priced food item was local, note if local was available (regardless of price) and record the place of origin listed either on the food packing itself or on the store signage advertising the food item.

Halifax's Ecology Action Centre- Food Action Committee, a group interested in promoting the social, economic, and environmental benefits of locally produced food have partnered with the Participatory Food Costing Project Working Group to determine how best to use this data and to advise analysis interpretation of the data. The environmental and community economical benefits of supporting local food are also an integral component of food security. Food security is one of the four priority areas of Healthy Eating Nova Scotia, the provincial healthy eating strategy. This document calls for public policies to increase the affordability of locally produced food and local food production and distribution systems. By including a local component in the NNFB we can monitor if the government is successfully addressing local farmers/producers needs to be able to distribute their goods and services in the local community. It is hoped that these data can also be used to examine "food miles," or how far food travels from the farm to the fork.

In June 2007, based on exploratory data on the availability and cost of selected locally produced food items collected in 2004/05, Participatory Food Costing Project partners began to gather additional data concerning locally produced food. The NNFB was adapted to collect information on the cost and availability of all 66 food items on the NNFB survey. The "local" questions were piloted during June 2007 food costing to ensure data could be collected by the partners within a reasonable time period and to identify any issues for problems with data collection and analysis. Preliminary analyses of this component have been completed and will be compiled with results of local data analyses from 2008 food costing data collection into a report to be released separately.

## **Grocery Store Selection**

The head offices of the major grocery store chains were contacted by letter to inform them of the project and to ask for their support. Head offices were then contacted by phone to confirm support and to solicit help in generating a complete list of all grocery stores in the province. The list of Nova Scotia grocery stores for 2008 was generated by starting with the list of all stores generated during the 2007 food costing project. The accuracy of this list was checked in several ways. The 'store locator' feature on the website of major grocery store chains was used as well as searching the online yellow pages, using the search terms "Nova Scotia" and "retail grocers". Members of the Food Costing Working Group and partnering community organizations from across the province crosschecked the compiled list by comparing it to their knowledge of existing grocery stores in their communities. The list, including the location and size of stores was also validated by head offices of the grocery stores. If a store was owned independently, this information was confirmed by telephoning the store directly. In some instances smaller stores were called directly to ensure that they carried the items required for the NNFB survey. Any store that required a paid membership was excluded from the final list of available stores.

There were 168 grocery stores on the final list. Strata criteria were based on the population of each DHA, the size category of the store (based on square footage), and the population of the community in which the store was located in order to determine if the store was located in an urban or rural area.

It was desirable that all regions of the province were represented in the sample, therefore each county or part of a county within a District Health Authority (DHA) territory was used as a stratum. This approach also allowed for estimating regional as well as provincial cost estimates, and comparisons between regions.

Of the 168 stores on the list, 89 were classified as "larger grocery stores", containing 15,000 square feet or more, 79 were classified as "smaller grocery stores", containing less than 15,000 square feet. The store size was used as a stratification variable because of anticipated price differentials between larger and smaller stores.

Forty-six stores were selected using stratified random sampling. Between the dates of when the list of grocery stores was compiled and the sample selection, two of the randomly selected stores invited to be a part of the food costing survey had closed. These stores were replaced by two other stores that met the same stratification criteria.

### **Training of Food Costers**

Thirty-six people attended training sessions during the month of May 2008. Many other food costers attended previous food costing training in 2007 and did not attend 2008 training. Forty food costers and 12 support people were available to assist with the food costing. Individuals who had attended previous train-the-trainer workshops and participated in previous food costing data collection were able to assist in the delivery of further training in their communities as well as support food costers during the actual food costing that occurred in June. In some instances support people were trained at the same time as food costers at the local training sessions that took place in six areas: Sackville, Digby, Baddeck, Bridgewater, Halifax and New Glasgow. Training sessions included an introduction to food costing and food security, instruction of how to do food costing, in-store use of the survey tool and troubleshooting discussions. During the training sessions food costers were provided copies of the survey tool for use in June and stamped envelopes to return their completed surveys.

In two instances one-on-one training was provided to food costers due to inability to attend a training session. In many cases, experienced food costers did refresher training with others in their organization. Food costers were provided the training guide, *"What Does it Cost to Eat Healthy in Your Community: A Training Guide to Participatory Food Costing"*, developed by the NS Participatory Food Security Projects to serve as a reference tool.<sup>8</sup>

### **On-site Price Collection**

Food costing data were collected during the week of June 14<sup>th</sup> – 18<sup>th</sup>, 2008. All stores were surveyed within a one-week period to ensure consistency across sale items and to avoid variability in food prices. Prior to collecting food costing data, a letter was faxed to head offices to inform them which of their stores that had been selected.

Each store was contacted a second time by project staff to inform them of the date and time that food costers would arrive to conduct the survey. Food costers worked in pairs and were instructed to identify themselves to the manager when they arrived at each store. All food costers were provided name badges identifying them with the project, thus assuring store managers of their legitimacy. A set of standardized guidelines for the in-store food pricing procedures based on the NNFB was provided and followed by the food costers. The guidelines helped to ensure that pricing was done consistently in all stores throughout the province.

Food prices obtained from each store for each food item were recorded by the food costers on the NNFB form and returned to the research team via mail in stamped envelopes that had been provided at the training sessions.

## Calculating Food Costs

Dr. Ilya Blum, Statistician, Mount Saint Vincent University used a cost averaging spreadsheet, adapted from a tool provided by the Ontario Ministry of Health,<sup>9</sup> to manage data and facilitate price calculations.

Prior to entering the data from the food costing forms into the spreadsheet, the recorded prices were reviewed and checked to ensure accuracy by a research assistant and the project coordinator. For example, if a price for an item was recorded using a size that was not specified on the NNFB, the specified size price was crosschecked with the alternative using unit prices, calculations were made and prices adjusted accordingly. As well, when produce was priced per bunch or head, the calculated price per kilogram was double-checked for accuracy. If a weighing scale was not available in a grocery store, the average weight for all stores was used with the price recorded for that particular store. Similarly, if an item was sold individually and the scaled weight was not available, the average weight from all other stores for that item was used. Once the reviewed prices were entered into the spreadsheet, a research assistant verified each calculation and spreadsheet entry. Any changes or revisions to calculations or prices entered were recorded and initialed on the survey forms.

If an item was missing from the survey form, no value was entered to the 'survey data' spreadsheet. The cost averaging spreadsheet was designed to calculate the average price for missing items using the existing data from all other prices entered for that particular item. In the June 2008, 44 items were missing a price on the original NNFB survey, representing 1.4% of all data collected in that time period.

The cost averaging spreadsheet is formulated so that purchase prices from each food item entered into the spreadsheet are automatically multiplied by a scalar to convert all prices to a common unit. The scaled price is then multiplied by a weight value that represents the relevant weighting or contribution of that particular food item within the overall food grouping.

Weekly costs of the food basket for a reference household of four and 23 different age and gender groups, including pregnancy and breastfeeding were then generated. The reference household of four consists of a woman and a man between the age of 25 and 49, a 13-year-old boy, and a seven-year-old girl. These data were then used to determine the cost for households of different sizes and ages and gender compositions. The cost for households smaller and larger than four people was adjusted to account for economies of scale. Specifically, cost was decreased by a factor of 5% to account for each person beyond a four-person household, and increased by a factor of 5% for each person less than a four-person household.<sup>8</sup>

Monthly costs were calculated by multiplying the weekly cost of the NNFB by 4.33 corresponding to the number of weeks in a month. A five percent factor was also added to the cost of the food basket to cover miscellaneous food items used in meal preparation or those purchased in small quantities such as spices, condiments, coffee and tea.<sup>3</sup>



For the purpose of this project, stores smaller than 15,000 square feet were classified as “smaller stores” and those 15,000 square feet and over were considered “larger”. A rural area was defined as towns and municipalities outside of the commuting zone of urban centres with a population of 10,000 people or less. Conversely, an urban area was defined as a community with a population of greater than 10,000 people.

To protect the identity of participating stores, a minimum of three stores was used to calculate all averages for NNFB costs. Therefore, for District Health Authorities where less than three stores were surveyed, stores were combined with an adjoining District Health Authority to calculate averages.

### **Ethical Considerations**

Throughout all phases of this research, involvement by research participants was supported through reimbursement for child-care and transportation. Additionally, food costers who assisted with collecting food costing data in the grocery stores were provided with honoraria (\$45/store) to compensate them for their time and contribution to the research. Furthermore, to protect the identity of stores sampled, the food costing data from all grocery stores have been categorized and aggregated and data have not been presented on any individual store.

## Appendix C – Sample Letter to the Grocery Store

May 2008

Dear Manager,

The Nova Scotia Food Security Network (NSFSN), Department of Health Promotion and Protection (DHPP), and Mount Saint Vincent University in partnership with community organizations across the province, are conducting our annual provincial survey to determine the cost of a basic nutritious diet.

***Your store has been selected through a random sampling of grocery stores throughout Nova Scotia to participate in this important research. We invite your participation in this by allowing food costers to collect pricing information in your store this June.***

The overall aim of this project is to determine the generic cost of a nutritious food basket based on a list of foods that reflects healthy eating recommendations. Food costing is a common tool that began in the 1970's by Agriculture Canada to monitor the changing costs in the prices of foods. Now, the National Nutritious Food Basket-Health-Canada is used more often to raise awareness of the cost of a healthy diet and to compare the adequacy of various incomes to provide that healthy diet. Food costing has been used in several provinces and areas across the country and was conducted most recently in Nova Scotia in June 2007.

By surveying food prices from various grocery stores across the province we will determine the extent to which Nova Scotia families can afford a healthy diet. The random sample of 46 selected stores was chosen from a list of all grocery stores across the province. Prices from all stores will be pooled to determine an average price for the province as a whole as well as by county. Individual prices, brand and store names will be kept strictly confidential. ***Participating grocery stores will not be identified and the costs, either for specific foods or for the nutritious food basket, will never be released for any one store.*** This survey is not intended to determine the cost of food items per store but rather the average cost of healthy eating.

The food pricing will be conducted by two individuals from a community organization in your area. With your permission, those completing food costing will spend approximately 120 to 180 minutes in your store. You will be informed of the date that the food pricing will take place in your store in advance and food costers will identify and introduce themselves to store managers before beginning the food pricing. As well, they will wear badges indicating they are part of the Provincial Participatory Food Costing Project.

Your participation in this project is greatly appreciated and we look forward to working with you. If you have any questions please contact me at (902) 457-5549. We will be contacting you by phone within the next week to discuss your participation.

Sincerely,

Lesley Frank  
Project Coordinator, Food Costing Project  
MSVU Research House  
46 Melody Drive  
Halifax, NS  
B3M 2J6  
(902) 457 – 5549  
[Lesley.frank@msvu.ca](mailto:Lesley.frank@msvu.ca)

**Appendix D - National Nutritious Food Basket (NNFB), adapted 2008**

**Food Basket Form**

**Nova Scotia Participatory Food Costing Project**

<b>Date:</b>	<b>Time:</b>	<b>Store Name:</b>
<b>Store Address:</b>		<b>City/Town</b>
<b>Your Name:</b>		<b>Your Address:</b>
<b>Your Phone Number:</b>		
<b>Your Postal Code:</b>		

**Instructions:**

- **Column C:** For all items listed in this survey, record the **lowest price** for the food product in the purchase size indicated.
- **Column B:** If the preferred purchase size is not available, choose the lowest price for the closest alternative size and record the purchase size.
- If an item or suggested substitute (e.g. arrowroot cookies and social tea biscuits) are not available, indicate this with an **“N/A”** (not available) so that it is clear the item was not simply forgotten.
- **Column D:** If the lowest priced item was a sale item, place a check (✓) in the ‘On Sale’ column.
- **Column F: Local = Atlantic Canada.** Record where the lowest priced item is from. “Product Of” refers to the country. “Address” refers to the specific city/town. Record as much detail as the food package label gives you (e.g. Product of: *Canada*; Address: *Berwick, NS*).
- **Columns G & H:** Leave blank if Column F = “yes” to local. If the lowest priced item was NOT local (i.e. not produced in Atlantic Canada), please look to see if a local product was available in similar purchase size. If local is available, record where it was produced and its price.
- **Column I:** Record the lowest price for the food product in the purchase size indicated in Column B. This may be the same dollar figure you recorded in Column C or it may be a dollar amount you calculated in Column E.

Report on 2008 Participatory Food Costing – Appendices Page 12

A	B	C	D	E	F	G	H	I
Food	Purchase Size	Price	On Sale (✓)	Comments & Calculations	Was Lowest Price Local? (circle one)	(if lowest price wasn't local....) Was Local Available? (circle one)	Price of Local Item	Price Entered to Spreadsheet
<b>Milk Products</b>								
2% milk  * Is sold in either 2L or 4L	3L	/2L  /4L			YES NO ? Product Of: _____  Address: _____	YES NO ? Product Of: _____  Address: _____	\$_____  (record purchase size)	
Yogurt  * is sold in 400g	500g				YES NO ? Product Of: _____  Address: _____	YES NO ? Product Of: _____  Address: _____	\$_____  (record purchase size)	
Cheddar cheese, Medium  * is sold as 200g	227g				YES NO ? Product Of: _____  Address: _____	YES NO ? Product Of: _____  Address: _____	\$_____  (record purchase size)	
Process cheese slices	500g				YES NO ? Product Of: _____  Address: _____	YES NO ? Product Of: _____  Address: _____	\$_____  (record purchase size)	
Mozzarella cheese  * is sold as 200g	227g				YES NO ? Product Of: _____  Address: _____	YES NO ? Product Of: _____  Address: _____	\$_____  (record purchase size)	
Vanilla Ice Cream	2L				YES NO ? Product Of: _____  Address: _____	YES NO ? Product Of: _____  Address: _____	\$_____  (record purchase size)	
<b>Eggs</b>								
Grade A Large	1 doz				YES NO ? Product Of: _____  Address: _____	YES NO ? Product Of: _____  Address: _____	\$_____  (record purchase size)	

The package sizes will vary and do not have to be any particular size. Cost only the price per kilogram (found on the label; usually the middle number) of regular sized packages of meat (not value packs, or family packs). Meat is assumed to be fresh, not frozen. If the price per kilogram is not available then record the price per pound and later convert that price to kilograms.

A	B	C	D	E	F	G	H	I
Food	Purchase Size	Price	On Sale (✓)	Comments & Calculations	Was Lowest Price Local? (circle one)	(if lowest price wasn't local....) Was Local Available? (circle one)	Price of Local Item	Price Entered to Spreadsheet
<b>Meat Products</b>								
Round Steak (cheapest of any variety i.e. inside, outside, marinating)	1 kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ? Product Of:	YES NO ? Product Of:	\$_____	
		/lb			Address:	Address:	(record purchase size)	
Stewing Beef	1 kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ? Product Of:	YES NO ? Product Of:	\$_____	
		/lb			Address:	Address:	(record purchase size)	
Ground Beef, Medium	1 kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ? Product Of:	YES NO ? Product Of:	\$_____	
		/lb			Address:	Address:	(record purchase size)	
Pork Chops, Loin (Cheapest of any variety)	1 kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ? Product Of:	YES NO ? Product Of:	\$_____	
		/lb			Address:	Address:	(record purchase size)	
Chicken Legs	1 kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ? Product Of:	YES NO ? Product Of:	\$_____	
		/lb			Address:	Address:	(record purchase size)	

**Note:** For the remaining meats, poultry and fish products, record the cheapest price for the item specified in the preferred purchase unit.

A	B	C	D	E	F	G	H	I
Food	Purchase Size	Price	On Sale (✓)	Comments & Calculations	Was Lowest Price Local? (circle one)	(if lowest price wasn't local....) Was Local Available? (circle one)	Price of Local Item	Price Entered to Spreadsheet
<b>Meat Products (continued)</b>								
Wieners, beef & pork	450g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Sliced ham (sandwich type)	175g	/175g pre packaged			YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
		/175g deli						
Frozen fish fillets	400g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Pink salmon, canned	213g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Flaked light tuna canned, water	170g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	

Report on 2008 Participatory Food Costing – Appendices Page 15

A	B	C	D	E	F	G	H	I
Food	Purchase Size	Price	On Sale (✓)	Comments & Calculations	Was Lowest Price Local? (circle one)	(if lowest price wasn't local....) Was Local Available? (circle one)	Price of Local Item	Price Entered to Spreadsheet
<b>Meat Alternatives</b>								
Baked beans with tomato sauce	398mL				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Dry navy beans/white pea beans	454g	/bag			YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
		/bulk						
Smooth peanut butter	500g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	

A	B	C	D	E	F	G	H	I
Food	Purchase Size	Price	On Sale (✓)	Comments & Calculations	Was Lowest Price Local? (circle one)	(if lowest price wasn't local....) Was Local Available? (circle one)	Price of Local Item	Price Entered to Spreadsheet
<b>Grain Products</b>								
Bread, enriched white	570g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Bread, whole wheat	675g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Hot dog or Hamburger Rolls	480g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Flour, white, all-purpose	2.5kg	/bag			YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
		/bulk						
Flour, whole wheat	2.5kg	/bag			YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
		/bulk						
Macaroni or spaghetti	900g	/bag			YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
		/bulk						
Rice, long grain, white	900g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
		/bulk						



A	B	C	D	E	F	G	H	I
Food	Purchase Size	Price	On Sale (✓)	Comments & Calculations	Was Lowest Price Local? (circle one)	(if lowest price wasn't local....) Was Local Available? (circle one)	Price of Local Item	Price Entered to Spreadsheet
<b>Grain Products (continued)</b>								
Macaroni & cheese dinner	225g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Oatmeal, regular	1kg	/bag			YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
		/bulk						
Corn Flakes (can use no name substitute)	675g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Shreddies (can use no name substitute)	620g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Soda crackers, salted	450g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Social tea cookies	350g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	

A	B	C	D	E	F	G	H	I
Food	Purchase Size	Price	On Sale (✓)	Comments & Calculations	Was Lowest Price Local? (circle one)	(if lowest price wasn't local....) Was Local Available? (circle one)	Price of Local Item	Price Entered to Spreadsheet
<b>Citrus Fruits</b>								
Oranges	1kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ?	YES NO ?	\$_____	
		/lb			Product Of: _____	Product Of: _____		
		/3lb bag			Address: _____	Address: _____		
Apple juice, canned or tetrapak (Vitamin C Added) <i>* can be sold 1.09L, 1.59L, or 1.49L</i>	1.36 L	/1.36L		Price/L x 1.36 = price/1.36L	YES NO ?	YES NO ?	\$_____	
		/L			Product Of: _____	Product Of: _____		
					Address: _____	Address: _____	(record purchase size)	
Orange juice, frozen concentrate	355mL				YES NO ?	YES NO ?	\$_____	
					Product Of: _____	Product Of: _____	(record purchase size)	
					Address: _____	Address: _____		
Tomatoes	1kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ?	YES NO ?	\$_____	
		/lb			Product Of: _____	Product Of: _____		
					Address: _____	Address: _____	(record purchase size)	
Whole tomatoes, canned	796mL				YES NO ?	YES NO ?	\$_____	
					Product Of: _____	Product Of: _____	(record purchase size)	
					Address: _____	Address: _____		
Tomato juice, canned	1.36L			Price/L x 1.36 = price/1.36L	YES NO ?	YES NO ?	\$_____	
					Product Of: _____	Product Of: _____	(record purchase size)	
					Address: _____	Address: _____		

A	B	C	D	E	F	G	H	I
Food	Purchase Size	Price	On Sale (✓)	Comments & Calculations	Was Lowest Price Local? (circle one)	(if lowest price wasn't local....) Was Local Available? (circle one)	Price of Local Item	Price Entered to Spreadsheet
<b>Other Fruits</b>								
Apples	1kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ?	YES NO ?	\$_____	(record purchase size)
		/lb			Product Of:	Product Of:		
		/3lb bag			Address:	Address:		
Bananas	1kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ?	YES NO ?	\$_____	(record purchase size)
		/lb			Product Of:	Product Of:		
					Address:	Address:		
Grapes	1kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ?	YES NO ?	\$_____	(record purchase size)
		/lb			Product Of:	Product Of:		
					Address:	Address:		
Pears	1kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ?	YES NO ?	\$_____	(record purchase size)
		/lb			Product Of:	Product Of:		
					Address:	Address:		
Raisins	750g	/bag			YES NO ?	YES NO ?	\$_____	(record purchase size)
		/kg bulk			Product Of:	Product Of:		
					Address:	Address:		
Fruit cocktail, canned, juice packed	398mL				YES NO ?	YES NO ?	\$_____	(record purchase size)
					Product Of:	Product Of:		
					Address:	Address:		

A	B	C	D	E	F	G	H	I
Food	Purchase Size	Price	On Sale (✓)	Comments & Calculations	Was Lowest Price Local? (circle one)	(if lowest price wasn't local....) Was Local Available? (circle one)	Price of Local Item	Price Entered to Spreadsheet
<b>Potatoes</b>								
Potatoes, fresh	4.54kg (10lb bag)	/bag		price/lb x 2.2026lb/kg = price/kg	YES NO ? Product Of: _____	YES NO ? Product Of: _____	\$_____	
		/kg loose			Address: _____	Address: _____	(record purchase size)	
Frozen French fries	1kg				YES NO ? Product Of: _____	YES NO ? Product Of: _____	\$_____	(record purchase size)
<b>Other Vegetables</b>								
Broccoli  * Sold in bunches not by weight	1kg	/bunch		Weight #1=	YES NO ? Product Of: _____	YES NO ? Product Of: _____	\$_____	(record purchase size)
				Weight #2=	Address: _____	Address: _____		
				Weight #3=				
				Add 3 weights and divide by 3. Average weight =				
Cabbage	1kg	/kg			YES NO ? Product Of: _____	YES NO ? Product Of: _____	\$_____	(record purchase size)
Carrots, fresh	1kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ? Product Of: _____	YES NO ? Product Of: _____	\$_____	(record purchase size)
		/lb			Address: _____	Address: _____		
		/3lb bag						

A	B	C	D	E	F	G	H	I
Food	Purchase Size	Price	On Sale (✓)	Comments & Calculations	Was Lowest Price Local? (circle one)	(if lowest price wasn't local....) Was Local Available? (circle one)	Price of Local Item	Price Entered to Spreadsheet
<b>Other Vegetables (continued)</b>								
Celery  * Sold in bunches not by weight	1kg	/bunch		Weight #1=	YES NO ?	YES NO ?	\$_____	(record purchase size)
				Weight #2=	Product Of:	Product Of:		
				Weight #3=	_____	_____		
				Add 3 weights and divide by 3. Average weight =	Address:	Address:		
Cucumber  * Sold individually not by weight	1kg	/each		Weight #1=	YES NO ?	YES NO ?	\$_____	(record purchase size)
				Weight #2=	Product Of:	Product Of:		
				Weight #3=	_____	_____		
				Add 3 weights and divide by 3. Average weight =	Address:	Address:		
Lettuce, Iceberg  * Sold individually not by weight	1kg	/head		Weight #1=	YES NO ?	YES NO ?	\$_____	(record purchase size)
				Weight #2=	Product Of:	Product Of:		
				Weight #3=	_____	_____		
				Add 3 weights and divide by 3. Average weight =	Address:	Address:		
Lettuce, Romaine  * Sold individually not by weight	1kg	/head		Weight #1=	YES NO ?	YES NO ?	\$_____	(record purchase size)
				Weight #2=	Product Of:	Product Of:		
				Weight #3=	_____	_____		
				Add 3 weights and divide by 3. Average weight =	Address:	Address:		

A	B	C	D	E	F	G	H	I
Food	Purchase Size	Price	On Sale (✓)	Comments & Calculations	Was Lowest Price Local? (circle one)	(if lowest price wasn't local....) Was Local Available? (circle one)	Price of Local Item	Price Entered to Spreadsheet
<b>Other Vegetables (continued)</b>								
Onions	1kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ?	YES NO ?	\$_____	(record purchase size)
		/lb			Product Of: _____	Product Of: _____		
		/3lb bag			Address: _____	Address: _____		
Green Pepper	1kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ?	YES NO ?	\$_____	(record purchase size)
		/lb			Product Of: _____	Product Of: _____		
Turnips	1kg	/kg		price/lb x 2.2026lb/kg = price/kg	YES NO ?	YES NO ?	\$_____	(record purchase size)
		/lb			Product Of: _____	Product Of: _____		
Mixed Vegetables, frozen	1kg	/kg			YES NO ?	YES NO ?	\$_____	(record purchase size)
Whole kernel corn, canned	341mL				YES NO ?	YES NO ?	\$_____	(record purchase size)
Green peas, canned	398mL				YES NO ?	YES NO ?	\$_____	(record purchase size)

A	B	C	D	E	F	G	H	I
Food	Purchase Size	Price	On Sale (✓)	Comments & Calculations	Was Lowest Price Local? (circle one)	(if lowest price wasn't local....) Was Local Available? (circle one)	Price of Local Item	Price Entered to Spreadsheet
<b>Fats and Oils</b>								
Margarine, tub (non-hydrogenated)	454 g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Butter	454g				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Canola Oil	1L				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
Mayonnaise-type salad dressing (reduced fat)	500mL				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
<b>Sugar and Other Sweets</b>								
Sugar, white	2kg	/bag			YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	
		/kg bulk						
Strawberry Jam	500mL				YES NO ? Product Of: _____ Address: _____	YES NO ? Product Of: _____ Address: _____	\$_____  (record purchase size)	

## **Appendix E - Methods for Constructing Affordability Scenarios**

The assessment of income adequacy and the financial impact of purchasing a basic nutritious diet requires assumptions about actual income, costs of goods and services, and what is considered essential for a basic standard of living.<sup>10</sup> To estimate the affordability of a basic nutritious diet, monthly costs for food, shelter, and other essential expenses were compared to average monthly incomes for five hypothetical household types:

- 1) a reference household of four consisting of two adults and two children;
- 2) a household of four consisting of a lone female parent and three children;
- 3) a household of five consisting of two adults and three children;
- 4) a household consisting of a lone pregnant female; and
- 5) a household consisting of a lone senior female (aged 75+ years).

The following explains the sources of data for Tables 3-7 in the report of the 2008 food costing.

### **INCOME**

#### **Median Income**

The 2006 median annual income in Nova Scotia was \$63, 900 per year.<sup>11</sup> In Table 3, the first scenario household has an annual combined gross household income of \$63, 900. One adult in the household earned 2/3 of \$63, 900 amounting to \$42, 600/yr and the other adult earned 1/3 to equaling \$21, 300/yr. In order to determine a monthly gross income for the household, these yearly earnings were divided by 12 for each adult. Then a disposable income (income after taxes) was calculated for each adult by applying appropriate Federal and Provincial taxes, as well as Canada Pension and Employment Insurance, using the Payroll Deductions Online Calculator on the Canada Revenue Agency Website: <https://apps.cra-arc.gc.ca/ebci/rhpd/calculatePayrollDeductionsJan08.do>.

#### **12.45/hr Wage**

The second scenario of Table 3 uses \$12.45/hr,<sup>12</sup> the average Canadian Call Centre wage in 2004 as an example of a higher than minimum wage that may be close to a living wage. A living wage is a wage that is sufficient enough for workers to support their family and have the means to participate in civil life. This scenario assumes that one adult in the household is working full time (40hr/week) for an hourly wage of \$12.45/hr while the other adult is working part time (20hr/week) for a wage of \$12.45/hr. Weekly rates were multiplied by 4.33 to estimate monthly gross incomes for each adult. Earnings of both adults were then added together to result in a gross monthly income of \$3,234.51. Then a disposable income (income after taxes) was calculated for each adult by applying appropriate Federal and Provincial taxes, as well as Canada Pension and Employment Insurance, using the Payroll Deductions Online Calculator on the Canada Revenue Agency Website: <https://apps.cra-arc.gc.ca/ebci/rhpd/calculatePayrollDeductionsJan08.do>.



### **Minimum Wage**

On May 1, 2008 the minimum wage increased to \$8.10/hour in Nova Scotia.<sup>13</sup> Scenarios in which there are two adults in the household assume that adult one is working full time (40hr/week) and adult two is working part-time (20hr/week) for \$8.10/hr. Weekly rates were multiplied by 4.33 to estimate monthly gross incomes for each adult. Earnings of both adults were then added together to result in a gross monthly income of \$2,104.38. Then a disposable income (income after taxes) was calculated for each adult by applying appropriate Federal and Provincial taxes, as well as Canada Pension and Employment Insurance, using the Payroll Deductions Online Calculator on the Canada Revenue Agency Website: <https://apps.cra-arc.gc.ca/ebci/rhpd/calculatePayrollDeductionsJan08.do>.

### **Working Income Tax Benefit (WITB)**

The Working Income Tax Benefit is intended to provide tax relief for eligible working low-income individuals and families who are already in the workforce and to encourage other Canadians to enter the workforce.<sup>14</sup> Among the 2008 scenarios, only the lone female parent household with three children, earning minimum wage was eligible for the WITB. An approximate WITB amount was calculated using the Canada Revenue Agency's WITB Online Calculator at: <http://www.cra-arc.gc.ca/ebci/icwb/witb/WitbController>.

### **Old Age Security**

Old Age Security basic pension is available to all seniors. The OAS basic pension is taxable at both the federal and provincial levels. The average monthly OAS benefit to all recipients in 2008 was \$489.83.<sup>15</sup>

### **Guaranteed Income Supplement**

To be eligible for the Guaranteed Income Supplement, seniors must be receiving an Old Age Security basic pension and meet certain income requirements.<sup>5</sup> The average monthly GIS benefit for a single person in 2008 was \$452.04.<sup>15</sup> The GIS benefit must be renewed annually through the income tax system. Women are more likely than men to neglect to subscribe to the GIS when eligible.<sup>16</sup>

### **Canada Pension Plan**

Almost every Canadian between the ages of 18 and 70 years who is employed contributes to the Canada Pension Plan (CPP) and is entitled to a retirement pension once they reach 60 years of age. Only those who contribute can receive this pension. The average monthly CPP benefit for retired persons in 2008 was \$489.72 for individuals who start receiving benefit at age 65.<sup>17</sup>

### **Income Assistance**

In June 2008, the Personal Allowance in Nova Scotia for a non-institutionalized adult (18 years and older) was \$208.00 per month.<sup>18</sup>

The maximum basic Shelter Allowance, whether a family rents or owns a home, is as follows: \$300 for a single member household, \$570 for a two member household and \$620 for any family with three or more members.<sup>18</sup>

Other forms of assistance, such as transportation and childcare allowances may also be available to households. The maximum amount a family is eligible to receive to cover transportation costs is \$150.00 per month per adult, while \$400.00 is the maximum allowable for child care costs per month.<sup>18</sup> Families only receive the full amounts if their expenses demand it. A family spending \$140/month on child care would only receive \$140 for their child care allowance. Amounts for other forms of assistance are often determined on a case by case basis with decisions influenced by variables such as whether the adults of the household are seeking work, involved in an employment program or educational upgrading, or need transportation to a medical appointment, etc.. A Child Care Subsidy Program is available to qualifying households with children under 12 years; this program is addressed in the “Child Care Expenses” section below. The Maternal Nutritional Allowance is available to expecting mothers for \$29.00 a month from the date the caseworker is notified of the pregnancy or birth of a child up to and including 12 full months after the birth of the child.<sup>18</sup>

### **Canada Child Tax Benefit (CCTB)**

The Canada Revenue Agency’s Online Calculator<sup>19</sup> was used to estimate the monthly amount of CCTB households would receive. The online calculator requires information regarding province of residence, total number of children under 18, individual and spouse/common-law partner net income, and Universal Child Care Benefit (UCCB) income. The Calculator estimates Canada Child Tax Benefit as well as the Nova Scotia Child Benefit and the National Child Benefit Supplement (if applicable). These benefits are paid to one parent, on a monthly basis, and are non-taxable.

### **Goods and Service/Harmonized Tax Credit (GST/HST)**

To estimate quarterly GST amounts the Canada Revenue Agency’s Online Calculator requires information regarding province of residence, total number of children under 19 years, net income, the net income of a spouse or common-law partner if applicable, and UCCB income.<sup>20</sup> To calculate monthly amounts, the amount calculated for each quarter was divided by three.

### **Universal Child Care Benefit (UCCB)**

The UCCB is a federal benefit paid to all Canadian families with children aged 6 years of age and under to assist with child care costs. An amount of \$100.00 is paid each month per child 6 and under. The UCCB is considered taxable income.<sup>21</sup> None of the scenarios presented in this report include children aged six and under.

## **INCOME DEDUCTIONS**

The four main deductions applicable to most employed Nova Scotians include federal and provincial income taxes, Employment Insurance deductions and Canada Pension contributions.

### **Federal Tax Deductions**

Applicable federal tax deductions on gross incomes were calculated by using Canadian Revenue Agency's Nova Scotia's Payroll Deduction Calculator that became effective on January 1, 2008. The *12 pay periods per year calculator* was used to calculate monthly federal tax deductions for each individual in the household earning an income.<sup>22</sup>

### **Provincial (Nova Scotia) Tax Deductions**

Applicable provincial tax deductions on gross incomes were calculated by using Canadian Revenue Agency's Nova Scotia's Payroll Deduction Calculator that became effective on January 1, 2008. The *12 pay periods per year calculator* was used to calculate provincial tax deductions for each individual in the household earning an income.<sup>22</sup>

### **Employment Insurance (EI)**

Applicable Employment Insurance premiums were calculated using Canadian Revenue Agency's Nova Scotia's Payroll Deduction calculator that came effective January 1, 2008. The *12 pay periods per year calculator* was used to calculate EI premiums for each individual in the household earning an income.<sup>22</sup>

### **Canada Pension Contribution (CPP)**

Applicable CPP contributions were calculated using Canadian Revenue Agency's Nova Scotia's Payroll Deduction Calculator that became effective January 1, 2008. The *12 pay periods per year calculator* was used to calculate CP contributions for each individual in the household earning an income.<sup>22</sup>

**EXPENSES**

In previous affordability assessments shelter and utilities, telephone, transportation, child care, clothing, footwear, personal care expenses, household cleaning supplies and food have been established as basic essential needs for a typical household.<sup>6</sup> Affordability scenarios using the 2008 food costing data have included these expenses.

**Shelter**

Shelter cost was estimated using rental market statistics available through the Canada Mortgage and Housing Corporation (CMHC). Average rents in privately initiated rental apartment structures of three units and over in Halifax in 2008 were available through CMHC.<sup>23</sup> The CMHC estimates do not include utility costs. In order to provide provincial estimates for housing in Nova Scotia, based on the Canadian Mortgage and Housing Corporation figures, a factor was derived from the MBM threshold estimates for shelter according to community size. The cost of shelter in Nova Scotia, population > 30,000-99,000 was divided by the cost of shelter in Halifax. The resulting factor of 79.1% was applied to cost estimates from the Canada Mortgage and Housing Corporation for a one, two and three bedroom rental unit in Halifax to provide provincial estimates. The one bedroom rental unit figure was used for the lone senior female (aged 75+) and the lone pregnant female in the second trimester. The two bedroom rental unit figure was used for the lone female in the third trimester. The three bedroom rental unit figure was used for the reference family of four, the lone female with three children, and the family of five.

**Table 1. Calculation of Provincial Shelter Cost Estimates**

<b>Apartment Size</b>	<b>Estimated Shelter Cost for Halifax (CMHC)<sup>23</sup></b>	<b>Provincial Estimate Factor</b>	<b>Provincial Estimate for Shelter Cost</b>
<b>3 Bedroom Apartment:</b> Family of Four (x2), Family of Five	\$1,064/mon	79.1%	\$841.62/mon
<b>2 Bedroom Apartment:</b> Single Female, 3 <sup>rd</sup> Trimester	\$833/mon	79.1%	\$658.90/mon
<b>1 Bedroom Apartment</b> Single Individual	\$683/mon	79.1%	\$540.25/mon

## **Transportation and Clothing and Footwear**

In keeping with the methodology established for the estimation of basic expenses,<sup>6</sup> the estimates of costs associated with transportation and clothing and footwear were calculated based on the Market Basket Measure (MBM). The MBM is a tool developed by Human Resources Development Canada (this department now falls under Human Resources and Social Development). The MBM estimates the cost of a specific basket of goods and services on an annual basis beginning in 2000.<sup>24</sup> The MBM attempts to measure absolute poverty; therefore, the goods and services in the basket are viewed as necessary for a minimum standard of living. The MBM measure of the cost of goods and services was used in the scenarios because no other data were available on the average cost of goods and services in Nova Scotia and the MBM is a nationally recognized measure.

Statistics Canada collected MBM data for 19 specific communities and 29 community sizes in the ten provinces. The MBM is calculated using a reference family of four; one male adult and one female adult aged 25 to 49 years with two children, a girl aged nine and a boy aged 13 years. In order to calculate MBM amount for other family sizes, the Low Income Measure equivalence scale is applied to the MBM data to account for differences in household size and composition.<sup>24</sup> The most recent MBM report available, released in October 2008 reports MBM figures for the year 2000, 2001, 2002, 2004, 2005 and 2006.<sup>24</sup> This report provides overall MBM thresholds for a reference family of four and by component (shelter, food, transportation, clothing and footwear and other goods and services).

Estimates of transportation expenses in the family scenarios are based on owning a car. MBM transportation figures are based on the cost of owning and operating a 2000 Chevy Cavalier. This includes 20% of the cost and annual interest on a 36-month loan, 1500 litres of regular gasoline, insurance and license fees, a tune up and two oil changes.<sup>24</sup>

The MBM also calculates transportation costs for urban areas based on a public transportation pass for two adults and one round trip taxi ride monthly. Data do not include transporting children, or transportation costs outside public transit hours. Transportation costs for the lone senior female (aged 75+) and the lone pregnant female are based on using public transportation.

The clothing and footwear component of the MBM is based on the Acceptable Level of Living (ALL) basket developed by Winnipeg Harvest and the Winnipeg Social Planning Council with relative spatial indices applied to these costs to generate equivalent costs for other urban centres. The estimates were based on urban centres only and were assumed consistent with other community sizes.<sup>24</sup> The ALL Report assumes purchases of new clothing.

The MBM threshold figures for, transportation and clothing and footwear are provided for 5 distinct geographical areas within Nova Scotia (Nova Scotia Rural, Nova Scotia population under 30,000, Nova Scotia, population 30,000-99,000, Halifax Census Metropolis Area, Cape Breton Census Area). In order to determine a provincial MBM threshold figures for clothing and footwear and transportation, the 5 geographical areas were weighted by the percentage of the population living in those areas as reported in the 2006 census figures.<sup>24</sup>

Using Population and dwelling counts, for census subdivision, urban areas and designated places from the 2006 Census, the following provincial MBM thresholds were estimated.

**Table 2. MBM Thresholds for Transportation and Clothing and Footwear**

Community Category	Total Population	Percentage of Population	Transportation MBM	Clothing and Footwear MBM
Nova Scotia Rural	298,406	32.7%	\$4,018/yr	\$2,615/yr
Nova Scotia < 30,000	140,127	15.3%	\$4,018/yr	\$2,615/yr
Nova Scotia > 30,000-99,000		0%	\$1,604/yr	\$2,615/yr
Halifax CMA	372,679	40.8%	\$1,681/yr	\$2,615/yr
Cape Breton CA	102,250	11.2%	\$1,335/yr	\$2,615/yr
Total	913,462	100%		
Provincial MBM figures			\$2,764/yr	\$2,615/yr

These Provincial MBM thresholds were then converted to monthly costs for the reference household four. Since these MBM figures are based on 2006 data, estimates for 2008 were determined by adjusting for inflation by applying a factor corresponding to the Consumer Price Index (CPI). The Consumer Price Index is a measure of the rate of price change for goods and services bought by Canadian consumers. It is the most commonly used indicator of price change in Canada.<sup>25</sup>

The Provincial MBM thresholds were adjusted for inflation by applying the appropriate Nova Scotia CPIs. In order to estimate the cost of transportation and clothing and footwear for family sizes other than the 4-person reference family the Low Income Measure Equivalence Scale was used.<sup>24</sup>

**Table 3. Low Income Measure Equivalence Scale**

Family of four	2.0
Oldest member	1.0
Second Oldest and everyone else $\geq$ 16 years	0.4
Children under 16 years	0.3

This scale applies a weight of 1 to the first person in the household over the age of 16, 0.4 to the first child in a lone parent family and to all other persons aged 16 years and older and 0.3 to all other children under the age of 16. Thus the reference household has a value of 2 (1 + 0.4 + 0.3 + 0.3). In other words, the cost of the MBM basket for a lone adult would be 50% of the cost for the reference household of four; and, the cost of the MBM basket for the two parent household with 3 children would be 115% of the cost for the reference household of four.

**Consumer Price Index**

The following tables apply the appropriate CPI indexes to adjust the cost of the MBM expenses of transportation and clothing and footwear to June, 2008 figures.<sup>25</sup>

**Table 4. Calculation of Clothing and Footwear Cost Estimates**

								Estimate used in report Tables 3-7
	2006=100	2006-2007	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08
% change CPI		1.00%	-1.80%	6.90%	1.80%	-1.30%	0.10%	-1.10%
MBM for family of four	\$217.92	\$220.10	\$216.14	\$231.05	\$235.21	\$232.15	\$232.38	<b>\$229.83</b>
MBM for family of five	\$250.61	\$253.12	\$248.56	\$265.71	\$270.49	\$266.98	\$267.24	<b>\$264.30</b>
MBM for single person	\$108.96	\$110.05	\$108.07	\$115.53	\$117.60	\$116.08	\$116.19	<b>\$114.91</b>

**Table 5. Calculation of Private Transportation Cost Estimates**

								Estimate used in report Tables 3-7
	2006=100	2006-2007	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08
% change CPI		1.60%	0.20%	-1.40%	1.20%	1.20%	3.20%	1.60%
MBM for family of four	\$334.83	\$340.19	\$340.87	\$336.10	\$340.13	\$344.21	\$355.22	<b>\$360.91</b>
MBM for family of five	\$385.06	\$391.22	\$392.00	\$386.52	\$391.15	\$395.85	\$408.51	<b>\$415.05</b>

**Table 6. Calculation of Public Transportation Cost Estimates**

								Estimate in report Tables 3-7
	2006=100	2006-2007	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08
% change		0.50%	-2.80%	-0.80%	0.70%	3.00%	3.30%	4.30%
MBM for a lone person	\$66.83	\$67.16	\$65.28	\$64.76	\$65.21	\$67.17	\$69.39	<b>\$72.37</b>

Transportation CPIs are reported for public and private transportation separately. Therefore it was decided to apply these separate CPIs to specific MBM transportation figure for areas within Nova Scotia that would be more apt to use either private or public transportation. The public transportation index was applied to the Nova Scotia, population > 30,000-99,000 transportation figure and used in the Lone Person scenarios. The private transportation index was applied to the Rural Nova Scotia MBM transportation figure and used in the Family of Four and Family of Five scenarios.



**Power**

Nova Scotia Power supplied conservative energy needs estimates<sup>26</sup> based on square footage figures found in the *Affordable Housing Handbook*; March 2005 by HRM Planning and Development Services (now Community Development Planning and Planning Services).<sup>27</sup>

**Table 7. Approximate monthly Power and Electric Heat Cost by Apartment Size (June, 2008)<sup>27</sup>**

<b>Apartment Type</b>	<b>Square Footage</b>	<b>Price: June, 2008</b>
1 Bedroom	650	\$85
2 Bedroom	853	\$115
3 Bedroom	1000	\$132

**Telephone**

The monthly cost for basic local phone service after installation is \$29.21 (includes 14% tax and the monthly 911 service fee of \$0.62). Aliant is used as it is the only communications provider accessible throughout the entire province of NS. This basic service does not include special phone features (call management features-call display, call waiting, voicemail, etc.) or long-distance. This expense estimate does not include the one-time service activation fee of a minimum of \$35.00.<sup>28</sup>

**Child Care Expenses**

The Child Care Subsidy Program is a provincial program, and is not to be confused with the child care allowance provided by Income Assistance. Lone parent families with net monthly incomes less than \$1401 and two parent families with net monthly incomes less than \$1476 would qualify for the maximum subsidy amount;<sup>29</sup> however, families with incomes higher than this may qualify for a pro-rated subsidy amount. For the scenarios with children where parents are earning minimum wage and receiving IA, it was assumed parents had applied to the NS Department of Community Services’ Child Care Subsidy Program and subsidized child care spaces for each of their children was provided. In order to calculate the estimate for childcare expenses, the average cost of childcare in the Northern Region of Nova Scotia was used.<sup>30</sup>

***Average cost of daycare by age group in the Northern Region:***

0-18 months was \$27.00/day;  
>18 months – 3 years was \$26.20/day;  
>3 years -5 years: \$25.94/day;  
After school program was \$12.37/day

***Maximum subsidy amounts given by Community Services:***

0-18 months: 22.00/day;  
>18 months – 3 years: \$20.00/day;  
>3 years -5 years: \$19.00/day;  
After school program: \$5.90/day

***Costs to parents after subsidy:***

0-18 months \$5.00/day  
>18 months – 3 years \$6.20/day  
>3 years – 5 years \$6.94/day  
After school program \$6.47/day

We have assumed that parent(s) need to place their children in daycare or after school care 5 days a week. Therefore, we calculated that children will need to be in school 5 days/week times 4.33 wks/month= 21.65 days/month. This amount was then multiplied by the average cost per day for day care or after school care of the specific age group (or the cost to parents after subsidy)<sup>31</sup> to determine the child care expense for specific families. Only children under 13 years old qualify for subsidy amounts.

**Personal Care and Household Cleaning Supplies**

Expenses for personal care items and household cleaning supplies were calculated using data from the 2007 Survey of Household Spending (SHS) conducted annually by Statistics Canada.<sup>32</sup> This survey reports average household spending of goods and services in Canada, by province and by income quintile. The SHS was selected as the best data source for this cost to keep in line with its use in determining the cost of other goods and services as part of the Market Basket Measure. Spending on items is reported as ‘average spending by household’ not average spending by particular family size. Therefore in consultation with a statistician, a scaler (80.1%) was used to determine spending costs by family size. Average spending costs of the second quintile were used keeping in line with the MBM which uses the expenditure patterns of the second quintile.<sup>24</sup> The SHS reports the average family size in each quintile. The second quintile family size was 1.97. The average spending for each household was calculated by dividing the average spending per household on personal care by the average family size of the quintile. Once average spending for one person is determined a multiplier of 80.1% for each additional person was used.

**Table 8. Estimated Average Monthly Spending on Personal Care and Household Cleaning Supplies (Survey of Household Spending, 2007)**

	Average spending/year/household	Average spending /month
Personal Care	\$689	\$57.42
Household Cleaning Supplies	\$233	\$19.42

**Table 9. Estimated Average Monthly Spending on Personal Care Supplies per Individual**

Personal Care	Average spending/month
One Person	\$29.14
Each Additional Person (80.1% of the single person)	\$23.34

**Table 10. Estimated Average Monthly Spending on Household Cleaning Supplies per Individual**

Household Cleaning Supplies	Average spending/month
One Person	\$9.86
Each Additional Person (80.1% of the single person)	\$7.90

As these figure represent 2007 spending amounts, a CPI index is applied to bring spending costs to June, 2008 figures.

**Table 11. Calculation of Average Spending per Household on Personal Care**

							Estimate used in Report Tables 3-7
	2007	Jan-08	Feb-08	Mar-08	Apr-08	May-08	June-08
% change CPI <sup>25</sup>		-0.20%	0.90%	0.40%	0.00%	1.50%	0.80%
Average spending for one person	\$29.14	\$29.08	\$29.34	\$29.46	\$29.46	\$29.90	<b>\$30.14</b>
Average spending for 4 people	\$99.16	\$98.96	\$99.85	\$100.25	\$100.25	\$101.76	<b>\$102.57</b>
Average spending for 5 people	\$122.50	\$122.26	\$123.36	\$123.85	\$123.85	\$125.71	<b>\$126.71</b>

**Table 12. Calculation of Average Spending per Household on Household Cleaning Supplies**

							<b>Estimate used in Report Tables 3-7</b>
	2007	Jan-08	Feb-08	Mar-08	Apr-08	May-08	June-08
% change CPI <sup>25</sup>		-1.10%	-0.20%	0.70%	0.00%	0.80%	-0.10%
Average spending for one person	\$9.86	\$9.75	\$9.73	\$9.80	\$9.80	\$9.88	<b>\$9.87</b>
Average spending for 4 people	\$33.56	\$33.19	\$33.12	\$33.36	\$33.36	\$33.62	<b>\$33.59</b>
Average spending for 5 people	\$41.46	\$41.00	\$40.92	\$41.21	\$41.21	\$41.54	<b>\$41.50</b>

**Comparability of the Affordability of a Basic Nutritious Food Basket Over Time**

In 2007, the methods used to calculate net incomes and data on basic expenses used to construct affordability scenarios were updated. These changes limited the ability to make comparisons between the 2007 affordability scenarios and those previously constructed in 2002 and 2004/05.<sup>6</sup> In constructing the 2008 scenarios the revised methodology developed in 2007 was used with the exception of the estimation of shelter cost. In 2007, shelter estimates were calculated using MBM thresholds described previously. In 2008, the methodology and data source for shelter cost was updated to reflect the more accurate, though still conservative, estimate of shelter costs based on CMHC figures. For the purpose of comparison with the CMHC estimates used in 2008, shelter estimates for 2008 based on MBM figures are presented below. These shelter costs have been estimated using the same methodology as 2007. In order to examine the impact of this change on the results of the affordability scenarios, scenarios were constructed using both the old and revised method for estimating shelter cost. Shelter estimates using the revised method are presented in the *2008 Report on Participatory Food Costing*.

**Table 13. Calculation of Shelter Cost Estimates using MBM Method<sup>1</sup>**

	2006=100	2006-2007	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08
% change CPI		0.60%	0.0%	0.10%	0.10%	0.00%	0.20%	0.20%
MBM for family of four	\$710.33	\$714.59	\$714.59	\$715.31	\$716.02	\$716.02	\$717.45	<b>\$718.89</b>
MBM for family of five	\$816.88	\$821.78	\$821.78	\$822.60	\$823.43	\$823.43	\$825.07	<b>\$826.72</b>
MBM for single person	\$355.17	\$357.30	\$357.30	\$357.65	\$358.01	\$358.01	\$358.73	<b>\$359.44</b>

<sup>1</sup> These figures were not used for the calculation of shelter costs for the 2008 affordability scenarios. This table is for reference only.

## Appendices References

---

1. Nathoo, T. & Shoveller, J. (2003) Do healthy food baskets assess food security? *Chronic Disease Canada*; 24(3):65-9.
2. The Empire Club Foundation. (1975). Why not? In: *The Empire Club of Canada Speeches 1974-1975*. Toronto, Canada: The Empire Club Foundation:p.256-67.
3. Lawn, J. (1998). *National Nutritious Food Basket*. Health Canada. Ottawa, ON.
4. Atlantic Health Promotion Research Centre, Family Resource Centres/Projects & Nova Scotia Nutrition Council. (2004). *Participatory Food Security Projects Phase I and II. Building food security in Nova Scotia: Using a participatory process to collect evidence and enhance the capacity of community groups to influence policy*. Halifax, N.S.
5. Green R.,Williams, P., Johnson, C.S. & Blum, I. (2008). Can Canadian seniors on public pensions afford a nutritious diet? *Canadian Journal of Aging*; 27(1):69-79.
6. Nova Scotia Participatory Food Projects. (2008). *Cost and affordability of a nutritious diet in Nova Scotia*. Report of 2007 Food Costing. Halifax, N.S.
7. Nova Scotia Participatory Food Projects. (2009). *Cost and affordability of a nutritious diet in Nova Scotia*. Report of 2008 Food Costing. Halifax, N.S.
8. Atlantic Health Promotion Research Centre, Family Resource Centres/Projects & Nova Scotia Nutrition Council. (2007). *What does it cost to eat healthy in your community? A training guide to participatory food costing*. Halifax, N.S.
9. Ontario Ministry of Health, Public Health Branch. (1998). *Monitoring the cost of a nutritious food basket protocol*. Toronto, ON: Ministry of Health.
10. Williams, P., Johnson, C., Kratzmann,M., et al. (2006). Can households earning minimum wage in Nova Scotia afford a nutritious diet? *Canadian Journal of Public Health*;97(6):430-434.
11. Statistics Canada. (2006). *Statistics Canada summary table: median total income, by family type, by province and territory*. Available at: [http://www40.statcan.gc.ca/l01/cst01/famil108\\_b-eng.htm](http://www40.statcan.gc.ca/l01/cst01/famil108_b-eng.htm). Accessed on: February 20, 2009.
12. Akyeamong, E. (2005). Business support services. *Perspectives on Labour and Income*; 6(5): 5-9.
13. Nova Scotia Labour and Workforce Development, Employment Rights. (2009). Minimum Wage. Available at: <http://www.gov.ns.ca/lwd/employmentrights/MinimumWage.asp>. Accessed on: February 16, 2009.

14. Canada Revenue Agency. (2009). Working Income Tax Benefit. Available at: <http://www.cra-arc.gc.ca/bnfts/wtb/menu-eng.html>. Accessed on: March 1, 2009.
15. Service Canada. (2009). Old Age Security (OAS) Payment Rates. Available at: <http://www1.servicecanada.gc.ca/eng/isp/oas/oasrates.shtml>. Accessed on: February 23, 2009.
16. National Advisory Council on Aging. (2005). *Seniors on the margins: Aging in poverty in Canada*. Minister of Public Works and Government Services Canada. Ottawa, ON.
17. Service Canada. (2009). Canada Pension Plan (CPP) Payment Rates. Available at: <http://www1.servicecanada.gc.ca/eng/isp/pub/factsheets/rates.shtml>. Accessed on: February 23, 2009.
18. Nova Scotia Employment Support and Income Assistance Manual. (2008). Available at: [www.gov.ns.ca/coms/employment/documents/ESIA\\_Manual/ESIA\\_Policy\\_Manual.pdf](http://www.gov.ns.ca/coms/employment/documents/ESIA_Manual/ESIA_Policy_Manual.pdf). Accessed on: February 20, 2009.
19. Canada Revenue Agency. (2009). Child and family benefits online calculator: CCTB online calculation 2006 base year (for the period July 2007 to June 2008). Available from: <http://www.cra-arc.gc.ca/bnfts/clcltr/menu-eng.html>. Accessed on: February 2, 2009.
20. Canada Revenue Agency. (2009). Child and family benefits online calculator: GST/HST credit online calculation 2006 base year (for the period July 2007 to June 2008). Available from: <http://www.cra-arc.gc.ca/bnfts/clcltr/menu-eng.html>. Accessed on: February 2, 2009.
21. Canada Revenue Agency. (2009). Universal child care benefit (UCCB). Available from: <http://www.cra-arc.gc.ca/bnfts/uccb-puge/menu-eng.html>. Accessed on: February 16, 2009.
22. Canada Revenue Agency. (2008). Payroll deductions online calculator: Results effective January 1, 2008. Available from: <https://apps.cra-arc.gc.ca/ebsci/rhpd/handleResultsOptionsJan08.do>. Accessed on: February 2, 2009.
23. Canadian Mortgage and Housing Corporation. (2008). Rental Market Statistics. Market Analysis Centre Publications, Ottawa ON.
24. Human Resources and Skills Development Canada. (2008). Low Income in Canada: 2000-2006 Using the Market Basket Measure; Final Report.
25. Statistics Canada. (2008). Consumer Price Index, shelter, by province; Consumer Price Index, clothing and footwear, by province; Consumer price index, transportation, by province. Available from: <http://www40.statcan.gc.ca/l01/cst01/econ157d-eng.htm>. Accessed on February 23, 2009.
26. Nova Scotia Power. (January 12, 2009). Personal Communication.

27. Halifax Regional Municipality. (2005). Affordable housing handbook. Available from: <http://www.halifax.ca/qol/documents/AffordableHousingHandbook.pdf>. Accessed on: February 23, 2009.
28. Aliant. (2009). Local telephone service. Available from: [http://productsandservice.aliant.net/PS/ns/english/productsandservices/productDetailPage.do?bodycont=productsandservices%2fproductDetailPage.do?product\\_id=402&product\\_id=402&section=31&subsection=1&urbody=31](http://productsandservice.aliant.net/PS/ns/english/productsandservices/productDetailPage.do?bodycont=productsandservices%2fproductDetailPage.do?product_id=402&product_id=402&section=31&subsection=1&urbody=31). Accessed on: February 23, 2009.
29. Nova Scotia Department of Community Services. (2009). Early Childhood Development Services; Child Care Subsidy. Available from: <http://www.gov.ns.ca/coms/families/childcare/ChildCareSubsidy.html>. Accessed on: February 23, 2009.
30. Nova Scotia Department of Community Services. (February 21, 2008). Personal Communication with Jerry MacKinlay.
31. Nova Scotia Department of Community Services. (2009). Early Childhood Development Services; Child Care Subsidy, Appendix E: Assessed Daily Parent Fee Schedule, Effective April 1, 2008.
32. Statistics Canada. (2007). Survey of household spending in 2007. Detailed Average Household Expenditure by Household Income Quintile for Canada and Provinces. Report No.: 62F0032XDB.