

## Appendix A Detailed Methodology

*Data on the cost of shelter in Alberta cities, towns and villages is compiled by Canada Mortgage and Housing Corporation and by Alberta Municipal Affairs. In developing regional averages, we have used 1999 average rental rates for one, two and three bedroom units in 74 Alberta communities.*

*Data on the cost of food was compiled using Alberta Agriculture's "Nutritious Food Basket Price Reports" from 1996 to 1999. These reports are "one-day snapshots" that measure "the cost of healthy eating based on current nutrition recommendations" for males and females at various ages (Alberta Agriculture, 1999). Because the nutritious food basket price information is collected on different days in different communities, comparisons between communities are difficult to make. However, we have adjusted the prices to constant 1999 dollars in an attempt to control for differences that result from the time the data was collected. This data was available for 55 communities in the province.*

*Unfortunately, none of the Metis Settlements that comprise Region 18 were included in the data sets for shelter rates or food prices. The cost of living in Region 18 has therefore been estimated as an average of the 4 geographic regions in which the Metis Settlements are located – Regions 7, 12, 15, and 17. A map indicating the boundaries of regions 1 through 17, as well as the location of the 8 Metis Settlements can be found on page 4 of this report.*

*Alberta Agriculture's Nutritious Food Basket Price Reports were available for 55 Alberta communities, but none of the communities in regions 3, 7, 9, 15 or 16 were included. In those regions, the food prices have been estimated as the average of the food prices for bordering regions. Where Nutritious Food Basket Price Reports were available, the communities included between 36 and 92 per cent of the population of those regions.*

*For those expenses where actual price data was not available we have estimated costs based on Statistics Canada's "Summary of Average Household Expenditure by Household Income Quintile." Compared with middle and high-income households, families in the lowest income quintile,<sup>3</sup> (the lowest 20% of income earners) spend disproportionately large percentages of their income on food, shelter, health and personal care, and education. They spend smaller portions of their income on discretionary items such as clothing, recreation, and transportation. Our purpose is to estimate the minimum amounts a family would be required to spend on each item to provide for their needs. For this reason, **we have estimated the cost for each item based on average spending of households in the two lowest quintiles (the lowest 40% of income earners). For most items, this method results in slightly lower***

**(more conservative) spending estimates than if we had used estimates based on the lowest income quintile's spending patterns alone.**

*The shelter and food cost data forms the basis of our estimates for most of the other household expenditures, with the exception of transportation. Shelter and food are the two largest expenses for low-income Canadians (Statistics Canada, 1997). Households in the two lowest income quintiles spend approximately 27.7% of their income on shelter and 16.9% of their income on food, for a total of 44.6%.*

*The following process was used to estimate expenditures for telephone, household operations, clothing, health and personal care, recreation and reading material, and education:*

- 1. The average cost for food and shelter was calculated for each region based on the available data. In calculating averages, the costs for each community were weighted according to the population (Statistics Canada, Community Profiles, 1997).*
- 2. Using 44.6% as the proportion of household income required to purchase food and shelter, an average total cost of household operation (100%) was calculated for each region.*
- 3. The average amount a family would need to spend on each item was calculated using the following percentages of total household spending:*
  - Communication – 3.0%*
  - Household operation (child care, furniture, equipment, etc.) – 6.0%*
  - Clothing – 4.5%*
  - Health and personal care – 5.2%*
  - Recreation and reading material – 5.6%*
  - Education – 1.4%*
  - Miscellaneous expenses – 4.6%*
- 4. The sum of all of these expenses plus an estimate for transportation in each region is our estimate of the cost of living for each sample family in each region.*

*We did not allow for any spending on items such as tobacco products, alcohol, games of chance, or personal taxes, insurance, and pension contributions.*

*This method of calculating expenditures is dependent on the averages for food and shelter in each region and is not a perfect representation of actual costs. However, the rationale is accepted and is basically the same as that used by Alberta Municipal Affairs in determining Core Need Income Thresholds (CNIT). CNITs are calculated based on*

*the premise that 30% is the maximum proportion of income that a family can spend on rent and still provide for their other basic needs. They are used in determining eligibility for rent supplement programs (Grande Spirit Foundation, verbal communication).*

*Estimating the cost of transportation is problematic. There are vast differences in travel expenditures, depending on where a family lives. Individuals often require a vehicle in order to maintain employment, and geographic differences create disparities in the distances traveled by Albertans who live in different regions.*

*The cost of transportation has, therefore, been calculated using two different methods. First, in municipalities where public transit systems exist, we have used the actual cost of monthly bus passes for each adult member of the family and for school aged children. In areas where public transportation is not available, we have calculated the cost of private transportation according to Statistics Canada's 1997 summary of average expenditures of Canadian households.*

*The average household expenditure for transportation in Alberta in 1997 was \$7,315. Because this average includes families with very high incomes who travel much more than the families we are interested in, it is not likely to be representative of actual costs for families who are spending on necessities only. We were able to access household expenditure data broken down by income level for all of Canada (10 provinces) and not for Alberta alone. We therefore used an estimate of transportation expenses based on the national spending patterns – averages that are slightly lower than those of Alberta.*

*Again, we have used the average amount spent on transportation by the two lowest income groups as an estimate of a minimal transportation cost. We have therefore, used a flat estimate of \$305.00 per month (\$3,660.00 per year) for transportation costs in communities without public transit. It should be noted that this is approximately half of the Alberta average household expenditure for transportation. This would allow fortunate individuals to own a vehicle and pay for fuel, maintenance, and insurance, but not to travel long distances.*

*While estimating transportation costs in this way does account for some of the differences between urban and rural areas; it does not account for geographic and demographic differences between regions. Further research that would allow for transportation cost comparisons between small, densely populated regions and large, sparsely populated regions would be beneficial.*