FEDERATION OF CANADIAN MUNICIPALITIES QUALITY OF LIFE REPORTING SYSTEM:

MEASURES OF COMMUNITY AFFORDABILITY

A Practicum Report

Submitted to the Faculty of Social Work

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by

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Federation of Canadian Municipalities Quality of Life Reporting System: Measures of Community Affordability

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Abstract

Federation of Canadian Municipalities Quality of Life Reporting System: Measures of Community Affordability

Despite a longstanding interest in measuring the quality of our life there is a lack of consistent tracking and reporting of social issues on a national scale. The Federation of Canadian Municipalities (FCM), in an attempt to rectify this problem, worked in conjunction with sixteen municipalities to develop a framework from which to monitor Quality of Life in Canadian municipalities. The FCM Quality of Life Reporting System is comprised of ten indicators.

This practicum focuses on the design, development and implementation of just one of the indicators, community affordability. The purpose of the Community Affordability Measure (CAM), is to measure the relative affordability of Canadian communities and changes in their relative affordability over time for both the community as a whole (CAM 1), and for what is referred to in this study as the 'modest income population' (CAM 2). The CAM is an index of the ratio of the income of the residents to the cost of living within the municipality compared to the aggregated experience of all the participating municipalities. This measure allows municipalities to determine where they stand on a national basis in relation to the quality of life their residents can afford.

The initial results have provided baseline quantitative data from which future changes will be tracked and reported.

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A. Overview of the Federation of Canadian Municipalities Quality of Life Reporting System

To speak to the imperative of developing a Quality of Life Reporting System as Hazel Henderson so succinctly stated:

"We measure what we treasure"

For the past several years, I have been working on a cooperative National Project, referred to as the Federation of Canadian Municipalities Quality of Life Reporting System. This project involves the Federation of Canadian Municipalities (FCM) and representatives from sixteen municipal governments.[1] The purpose of this project is to establish a framework from which to monitor quality of life in Canadian municipalities. The project involves the identification, design and development of a core set of Quality of Life indicators, the tracking of these indicators across the participating municipalities, and the annual reporting of results. I have been the City of Winnipeg's representative on

[1] The Federation of Canadian Municipalities (FCM) represents the interests of all municipalities on policy and program matters within federal jurisdiction. Refer to Appendix A for a list of participating municipalities.

this project since its inception in 1996 (along with whomever I have been reporting to at the time).

The impetus for this project was changes to the funding structure of federal transfer payments, and concern over how this would affect municipalities. In 1995 the Canada Assistance Plan (C.A.P) was replaced with the Canada Health and Social Transfer (CHST) resulting in reduced funding of social programs and a reduction of funding to municipalities. For almost thirty years the federal government channeled conditional cost sharing support for welfare and social service programs through C.A.P. It provided a legislated framework and specific standards in terms of non-residency requirements, and appeal processes for those in need of social assistance. The demise of C.A.P. meant the loss of national standards in terms of social assistance.

Also replaced was the Established Programs Financing (EPF), for provinces, to support health and postsecondary education. Around the same time, changes to the Unemployment Insurance Program were also announced, resulting in decreased eligibility and reduced benefits for those eligible.

The anticipated net effect of these measures was fewer dollars transferred from Ottawa into either provincial social spending, or in the case of Employment Insurance direct cuts in the pockets of individuals. Municipalities were concerned about the impact of these decisions on the quality of life in their communities and concerned that municipal governments may be expected to respond to pressing and unmet human need without access to either the financial resources or the broad political jurisdiction necessary to do so.

Although social programs for the most part are considered to be constitutionally a provincial responsibility, the majority of the costs of income security programs, including Unemployment Insurance, the Canada Pension Plan, Old Age Security and the Child Tax Benefit are paid by the federal government. Since municipalities did not consider it likely that provincial governments would make up the federal reductions, it was assumed that the impact would be a substantial reduction in support for low and modest income individuals and families by way of social programs.

The changes initiated by the federal government had a direct impact on municipalities who assumed responsibility for the delivery of social programs. Although municipal roles vary significantly from province to province in relation to the delivery of social programs, ultimately all municipal governments are charged with planning for the quality of life in their communities and with assuring basic services. Therefore, all municipalities were impacted, to some degree or another, as it seemed certain that the quality of community life in Canada was sure to decline.

The changes to the federal funding structure were the catalyst for the Federation of Canadian Municipalities tour across the country to consult with local politicians and social service administrators. The Big City Mayors Caucus approved and funded this endeavour in April 1995. The outcome of this cross-country consultation was an Issues Paper. This paper concluded that the changes to the federal funding structure would not only impact municipal governments, but that municipal governments lacked the necessary tools and data required to monitor the impact of these changes in any consistent, coordinated and meaningful way (Hunsley, 1996). It was also doubtful that

the federal government would launch any meaningful evaluation of the impacts of these changes.

There was a recognition that, despite the fact that most municipalities were looking at this issue locally, there was no real way to look at issues across municipalities. There was no standard collection of data, and there were no agreed upon social indicators, which reflected social issues or quality of life. In response to this problem, the Big City Mayor's Caucus commissioned the FCM in 1996 to come up with a reporting system that would monitor changes in the Quality of Life in Canadian municipalities.

This lack of consistent, available data, and standard reporting is a theme reflected in the social indicator literature from the 1960's through the 1990's. (Bauer, 1966; Duncan, 1969; Rossi and Gilmartin 1980; Wish, 1986, Cutter, 1985; Sherwood, 1993; Henderson, 1996; Dilks, 1996; Bates, Murdie and Rhyne, 1996; Meyers, 1999). Hazel Henderson (1996) suggests that this problem can be equated to the lack of significance attached to social issues by politicians. A complementary theme is the inadequacy and over reliance of economic indicators to report on social conditions. Henderson expresses her dismay with this by making an analogy to a 747 airplane.

> trying to run a complex society on a single indicator like the Gross National Product is literally like trying to fly a 747 with only one Guage on the instrument panel .....imagine if your doctor, when giving you a checkup, did no more than check your blood pressure (Henderson, 1996 pg. 168).

Bauer, had earlier expressed similar concerns stating:

> economic indicators have thus far dealt not with how good but with how much, not with the quality of our lives but rather with the quantity of goods and dollars (Bauer, 1996, pg. 57)

As previously stated, FCM and sixteen participating municipalities have been working to develop the FCM's Quality of Life Reporting System as a cooperative national project. To date ten domains, or indicators, have been identified that are perceived as relevant to conceptualizing Quality of Life from a municipal perspective. These include:

- Community Affordability
- Employment
- Health
- Housing
- Social Infrastructure
- Community Safety
- Community Stress
- Community Participation
- Population Resource Measures
- Environment

Several measures have been identified for eight of the ten indicators, which will be tracked on a nationally consistent basis and reported on annually. The Social Infrastructure and Environmental indicators are still in the development stage. Following is a brief description of the indicators; see Appendix B for an illustration of indicators and measures:

Population Resource

These measures provide a profile of population characteristics, including: population growth, citizen education and literacy levels, cultural diversity, immigration and age structure.

Community Affordability

These measures compare levels of income with the cost of living. They measure the relative affordability and changes in affordability over time for:

- CAM 1: The whole population, utilizing the municipal median income
- CAM 2: The modest income population, utilizing the 25th percentile

The Community Affordability Measures (CAM 1 and CAM 2) will be discussed in detail later in this report.

Quality of Employment

These measures monitor employment dimensions and trends such as: capacity of labour market to provide opportunity, distribution of employment (equity), partial employment and unemployment among different population groups.

Quality of Housing

These measures include the affordability of housing to rent and purchase relative to prevailing incomes, percentage of homes in need of repair, and residential property tax as a revenue per capita. Rental costs are already factored in to overall affordability, in the Community Affordability Measure. This measure however provides further insight into the issue of housing, including housing stock and information pertaining to municipal property tax bases. Housing is an important issue for municipalities and warrants its own measures.

Community Stress

These measures reflect social problems and factors that relate to vulnerable groups, such as incidence of low income, homelessness, incidence of lone parent families, crisis in terms of bankruptcies, suicides and crisis calls to emergency response services.

Health of Community

These measures include measures such as: rate of premature deaths (before 75) including reasons, incidence of illness, percentage of low birth weight babies, work time lost due to illness or disability.

Community Safety

This indicator includes measures such as rates of crime and violence, youth crime, and rates of unintended injuries.

Community Participation

This measure attempts to capture the involvement of citizens in their community, and includes: voter turnout, newspaper circulation, charitable donations, and recycling. (The FCM Quality of Life Reporting System, Quality of Life in Canadian Communities; May, 1999, pgs. 1 -2)

A lead and support municipality have been identified to work on each of the indicators. It is the responsibility of lead municipal governments to work with FCM's consultant on the development and testing of a specific indicator and to facilitate consultation and explanation of the indicator vis-à-vis other municipalities and interested parties. I have assumed the lead role for the Community Affordability Measure, the first indicator to be developed and tested, and the basis of this practicum. The Regional Municipality of Ottawa-Carleton was to assume the support role, although for a variety of reasons they have had little to no involvement in the development and testing of this indicator. In addition to assuming the lead role for the Community Affordability Measure, I have been an active member of the FCM's technical team in identifying the core set of indicators that were utilized as a framework for the QOL Reporting System.

To date, eight of the ten Quality of Life (QOL) indicators have been completed, and the quantitative baseline data, as well as some preliminary analysis, have been presented in a report released in May 1999. As previously stated, measures addressing Social Infrastructure and the Environment are still in the development stage.

For the most part, selected indicators are concepts familiar to city planners. However, the Community Affordability Measure (CAM), is a new measure designed

specifically to take into account both cost and income in determining affordability for specific populations, within municipalities.

A primary source of data for the QOL Reporting System was 1996 Statistics Canada census data. The indicators that make up the QOL Reporting System do not combine to produce an overall ranking of the communities. In other words, no summary composite index has been derived. Given the number of measures for each indicator, the report does not lend itself to the ranking of communities by indicator. However, municipalities can be ranked by individual measures falling under specific indicators. For example under the Housing indicator, there are six measures which can be ranked individually: 1) median family income as a percentage of average value of a dwelling, 2) median income for both a single person and a family as a percentage of average rent of a two bedroom apartment, 3) percentage of residents spending 30 or more percent of their income on shelter costs, 4) substandard units as a percentage of total occupied private dwellings, 5) residential property tax – cost per capita, 6) dollar value of real estate sales per capita. Each of the measures on their own can be compared across municipalities, but they do not roll up to provide an overall ranking in terms of housing, nor do each of the eight indicators combine to provide a summary index.

The literature speaks to the problems associated with creating a single number index, including difficulties with weighting the different measures and indicators, as well as losing important information for the purpose of analysis when aggregating diverse elements (Henderson, 1996; Cobb, J.,1989). Although, municipalities could be ranked by individual measures, the number of measures per indicator in most instances makes this a

very labour intensive process. With indicators such as the Community Affordability Measure (CAM 1 and CAM 2), however where ranking could easily occur, there was clear political direction to avoid the ranking of municipalities. As a result, the final report was constructed in such a way as to not easily lend itself to the ranking of municipalities by specific measures.

This project is unique in that it represents the first time that municipalities have come together to work on providing comparable data across municipalities. The first report, FCM's Quality of Life Report, focused primarily on establishing baseline quantitative measures that can be utilized as benchmarks to track changes in municipalities over time. Municipalities can track not only trends in their own municipality, but across the country. They can determine how they fare in relation to other municipalities, and for most measures, a Canadian average is also provided. All indicators will be further refined over time and qualitative data will also be included. As well, additional municipalities are being encouraged to join the project. The next report is tentatively scheduled to be released in September, 2000.

B. Professional Learning Goals

The QOL project provided me with an opportunity to gain a better understanding of the concept of quality of life, how it was being measured in different municipalities, as

well as the ability to network with other municipalities across the country on social issues. This afforded me, an invaluable learning experience.

The broad professional learning goals and objectives for this practicum were as follows:

1. To explore the Quality of Life concept, to gain a better understanding of how Q.O.L. can be measured and monitored at a community or municipal level.

2. To identify existing socioeconomic data that serve as Q.O.L. measures.

3. To network with other municipal representatives, and increase my knowledge in terms of what others are doing by way of tracking and reporting social issues at a local level.

More specific goals of this Practicum include:

1. To provide an overview of the Quality of Life Reporting Project.

2. As part of the larger Q.O.L. project:
   To identify a measure for one of the indicators, " Community Affordability," that will demonstrate changes in community

affordability over time for different population groups, which can be tracked on a nationally consistent basis.

3. To gain acceptance for this measure from the municipalities participating in the Q.O.L. Reporting System Project.

4. To test this measure against the criteria agreed upon by the technical team. To determine the degree to which it is technically feasible (addressing data source and availability, issues of affordability and sustainability), scientifically sound (pertaining to issues of validity and reliability), understandable and relevant to municipalities.

5. To implement this measure as part of the Q.O.L. Project across the sixteen participating municipalities.

6. To report on the results of this measure.

C. Organization of Practicum

The practicum report is comprised of six chapters. Chapter One focuses on my rationale for the practicum, including the impetus for the development of a QOL

reporting system, and provides a brief overview of the QOL project, how I fit into this project, and my learning goals. Chapter Two reviews the literature on Quality of Life including, a historical perspective, the need or imperative for QOL Research, the impediments or barriers to such research, and an exploration of what is currently considered state of the art. The review of the literature focuses primarily on QOL as it relates to places or geographic regions, as opposed to an individual level dealing with relationships and personal aspirations. The literature provides a foundation for the development of a framework to measure quality of life in Canadian municipalities. Chapter Three describes the practicum beginnings, further clarifying the purpose of the overall QOL project, the organization of the work, my role, and a description of the part of the problem that I attempt to address - the measurement of community affordability. Chapter Four outlines the methodology and design of this study. This includes the design and development of an instrument to measure Community Affordability, the validation of the tool including revisions, the development of a local pricing exercise, and finally the implementation and reporting of results. Chapter Five presents a discussion of process issues, the results of the Community Affordability Measures validation, and an evaluation of the outcome. Chapter Six provides a critique of the practicum in terms of professional learning goals, and addresses implications of this study from a broader perspective, making suggestions for future QOL research and planning.

II. Lessons from Related Literature

There is extensive literature related to Quality of Life research which spans the late 1920's to the current time. This review of the literature emphasizes current literature as well as some of the classic earlier studies. The research is primarily from the United States and United Kingdom. The primary focus is Quality of Life as it relates to place (geographical unit) as opposed to an individual level dealing with personal relationships and individual aspirations. The overall goal of the review is to gain a better understanding of how Quality of Life can be measured and monitored at a community or municipal level and be utilized to influence public policy.

A. Historical Perspective

In order to put Quality of Life Research into an historical perspective, I have viewed QOL from a wide perspective. Social indicators research first gained recognition as a field of study in the mid-1960's. This time is referred to as the rise of the social indicators movement (Duncan, 1969; Carley, 1981; Noll, 1996; Rossi and Gilmartin, 1980). According to Carley (1981), this movement was the result of a growing dissatisfaction with the amount and quality of social information available to governments. Further there was a concern that there was too much reliance on economic

indicators in determining social well- being. Thus, researchers began challenging the implicit assumption that economic indicators were simultaneously social indicators. At the same time, the very popularity and utilization of economic indicators has been attributed to the increased desire to identify social indicators analogous to economic indicators (Carley, 1981).

The most significant event in the rise of the social indicator movement took place in 1962 in the United States, when a project for the National Aeronautics and Space Administration (NASA) was undertaken to determine the impact "nature and magnitude of the unintended consequences of the space exploration program on American society" (Rossi and Gilmartin 1980, p.2). The project concluded that there was a lack of data to link the space program with specific changes in society. However, it resulted in a move toward the monitoring of changes in social conditions and the introduction of the term "social indicators" by the director of the project, Raymond Bauer (Rossi and Gilmartin, 1980; Carley, 1981). Heinz Noll, at a Symposium on Measuring Social Well Being, in 1996 utilized Bauer's definition of social indicators: "statistics, statistical series, and all other forms of evidence that enable us to assess where we stand and are going with respect to our values and goals." (CCSD, 1996). This definition continues to have relevance today. Bauer (1966) examined methods to monitor and predict the consequences of societal change, as well as social accounting and indicators in relation to national goals.

Murdie, Rhyne, and Bates (1992) provide a historical perspective of the QOL movement, pointing out that in the 1970's Quality of Life focused on objective indicators

and modeling of society using census data and the categorization of data into various themes or domains. Common domains or categories, to a large part, were based on available data. Flax and Palys (1973) studies included the following domains: unemployment, poverty, income, housing, health (mental and physical), public order, racial equality, citizen participation, and social disintegration (measured by the proportion of drug addicts in the population) and educational attainment. Smith (1973), after a review of the literature on territorial (geographical) social indicators, suggested seven major domains to be included in social indicator studies: 1) income, wealth and employment, 2) the living environment (housing, neighbourhood, the physical environment), 3) health, 4) education, 5) social order (crime, family breakdown), 6) social belonging (democratic participation, criminal justice) and, 7) recreation and leisure.

One of the criticisms of studies of this time was the lack of subjective data, and in the late 1970's there was an emergence of qualitative QOL studies. Whereas objective studies were based on facts or statistics (predominantly census data), subjective qualitative studies focused on attitudes and perceptions. Qualitative studies surveyed residents to determine their satisfaction with specific domains or life experiences. Objective social indicators, represent social facts independent of personal evaluations, (e.g. the unemployment rate). Subjective social indicators however, are based on an individual's perception and evaluation of social conditions. Examples include life satisfaction, job satisfaction, or relevance of specific life domains. Following this time was spent examining the link between subjective and objective indicators. However, the

findings suggested that there was little association between the two types of indicators (Murdie, Rhyne and Bates, 1992). For example, one's perception of safety may not correlate with an actual decrease in criminal activity. The two types of research then seemed to diverge. The objective indicator research led to "the places rated" literature (Boyer and Savageau, 1981, 1985), Comparative Social Indicators in U.S. Metropolitan Areas (Flax, Michael, 1973; Liu, Ben-Chieh, 1976), and Social Indicators of QOL in Canadian Cities (Palys, 1973; Schulman and Bond, 1978). Subjective indicator research continued to refine subjective measures, and some work was done at a community level. However, the cost of large scale questionnaires and surveys limited the utilization of this type of research (Gerein, 1998). Myer's (1987) refers to two different lines of measurement strategy, one focusing on individual well-being, and the other on urban quality of life. The individual well-being was initially based on subjective indicators and urban quality of life objective indicators. Individual well-being focused on meeting one's individual aspirations or satisfaction with life experiences, whereas urban studies dealt with data pertaining to overall community health, education, and income. Over time it became commonly accepted that both objective and subjective indicators were required for any study of quality of life, be it individual well-being or urban quality of life. (Carley, 1981; Cutter, 1985; Dilks, 1996; Hart, 1996; Henderson, 1996; Johnston, 1988; Murdie et al.1996; Myers, 1987).

Another American institution, the Russell Sage Foundation, also made significant contributions to the social indicator movement, supporting the further study of conceptual and methodological problems of monitoring large-scale social change. This resulted in

two major publications: Indicators of Social Change: Concepts and Measurements edited by Sheldon and Moore (1968) and Human Meaning of Social Change by Campbell and Converse (1972). Campbell and Converse (1972) focused on the psychological or subjective indicators, perception, aspirations, and expectations in terms of defining quality of life. (Carley, 1981). Their premise was that quality of life must be determined by how individuals perceive it, or the "quality of life must be in the eye of the beholder", a quote that Noll (1996) utilized from Campbell (1972). Angus Campbell's work is considered classic in terms of its contributions to the development of subjective indicators as they relate to quality of life. Prior to this, the concept of quality of life had been looked at primarily from an objective, statistical information basis. Campbell (1976) suggested that the measures that made up the contents of the social reports or trends were very similar, dealing with population growth and movement, marital status, unemployment and labour-force participation, health and health care, housing, education, leisure and crime. He also suggested that it remained unknown how these measures represent underlying psychological states or how well these represented quality of life experience.

Although the rise of the social indicator research occured in the 1960's, there was important work done prior to this. William Ogburn and colleagues in the 1920's and 1930's at the University of Chicago worked on the measurement of social change. Ogburn acted as the director of research, in 1929 when President Hoover commissioned the Research Committee on Social Trends. His committee commenced annual reporting on social trends in the United States. There were five reports published which consisted

of comprehensive statistical reports reviewing major policy problems and trends in specific areas including health, child and youth, recreation, and education (Rossi and Gilmartin, 1989). Jan Drenowski was commissioned by the United Nations in 1950, to attempt to "improve the measurement of the level of living by identifying components of welfare and by constructing respective indicators", (Noll, CCSD, 1996 p.1).

In terms of social indicators at the urban level, which is now extremely popular again, early intra-urban analysis traces back to sociologist, Robert Park in the 1920's. Park and his associates examined in detail the overall pattern of Chicago neighbourhoods and social characteristics of individual areas including population structure, mobility, ethnic make-up, employment and housing characteristics. His colleagues at the University of Chicago completed a community inventory of data for planning and policy purposes. Today, in Chicago there continues to be a program which provides analysis of census and other data, population estimates and projections and collection of new data for city departments and other agencies (Carley, 1981).

Although there was interest in social trends prior to World War II, after the war interest waned and did not resurface until the mid-1960's. In the 1940's the government was focused on evaluating economic conditions during the depression on more of a macro level (Rossi and Gilmartin, 1989). In the late 1960's and early 1970's however, a time of prosperity, there was more thought given to social costs of economic growth, issues of poverty, and whether more was necessarily better. It was a time when national values were being re-considered, and the concept of quality of life came into discussion. In 1964, U.S. President Lyndon Johnson stated: "the great society is concerned not with

how much, but with how good – not with the quantity of goods but with the quality of their lives."(Noll, CCSD, 1996 p.2). As Heinz Noll (1996) points out, the political climate of the 60's and 70's was that the government would no longer be reactionary, but that there would be informed rational decision making. Good information would allow for the early identification of problems, priority setting, and monitoring and controlling the impact of policies. Social indicator research could help provide the necessary information for rational decision making.

The optimism of the 1960's and 1970's was reflected in the popular belief that there were endless possibilities for doing social good and improving quality of life through social planning based on social measurement (Carley,1981). A journal, Social Indicators Research, was established at that time. Campbell (1976) suggested that American affluence allowed the nation to raise its aspiration to other goals. He referred to Maslow's hierarchy of needs, suggesting that when basic needs are met one turns to needs of a higher order such as fulfillment and self-actualization in terms of quality of life. Campbell referred to a revolution of rising expectations: "Recognition of the nature of this revolution is now widespread within governmental, business, and scholarly communities, and we are at present in a phase of search for means of documenting the quality of life with measures other than the established economic ones." (Campbell, 1976 p.2).

Once social indicators research took off in the United States, it soon spread to other countries and international organizations. The Organization for Economic Cooperation and Development (OECD) started working on social indicators and the

Social and Economic Council of the United Nations began to develop a System of Social and Demographic Statistics. According to Noll (1996), the OECD Programme of Work on Social Indicators in 1982 and the System of Social and Demographic Statistics of the United Nations in 1975, conceptualized by Richard Stone, influenced modern day reporting. Today, social reporting is entrenched in most countries. Statistics Canada, for example, publishes quarterly Canadian Social Trends reports along with many others including calculation and reporting on Consumer Price Index (CPI). Although most countries now have some system of social reporting, there is no agreed upon model. However, there are some common characteristics and most follow a system of life domains as proposed by OECD. Generally, they include objective living conditions and aspects of the subjective well-being of the population (Noll, 1996). More recent attempts for new measures or summary indices include the Genuine Progress Index (GPI) and the Human Development Index (HDI).

The GPI is a composite measure of sustainable economic welfare, which is based on a reconfiguring of the Gross Domestic Product (GDP) and subtracting government expenditures, which are considered curative. (Messinger, 1996). The GDP is the broadest indicator of economic growth, integrating the markets for goods and services (demand or spending) with the production of goods and services (supply and costs). The United Nations Development Programme identified sustainable human development as a theme, and developed the Human Development Index (HDI) for each country. This index addresses how far each country has to go in order to achieve defined goals including an average life span of 85 years, education for all, and a decent standard of

living. The HDI reduces all three basic indicators to a common measuring rod by measuring achievement as the relative distance from a desirable goal, where maximum is 1 and minimum is 0. The HDI is a simple average of the three indicators (Ontario Social Development Council, Social Planning Network of Ontario, Centre for Health Promotion at the University of Toronto, Ontario Healthy Communities Coalition, 1997).

In the late 1980's and 1990's the Sustainability and Healthy Cities Movements have impacted Quality of Life Research. Objective indicators have been utilized in the rating of places literature, focusing on the relative attractiveness of urban centres. At the intra- urban level, objective indicators have been utilized as neighbourhood level targets, and there has been some narrower research focused on the urban "poor or declining" neighbourhoods. In the 1980's there was a shift away from modeling per se to a stronger emphasis on the differences between local areas, and attempts to incorporate QOL research in the planning process (Bates, Murdie and Rhyne (1996).

B. Need or Imperative for Quality of Life Research

There are several reasons for the renewed interest in Quality of Life Research, including social report cards, community audits, intra and inter-urban analysis. It is a time of fiscal restraint and the popular rhetoric in management is "do more with less" and "work smarter not harder". At the same time there is a push for integrated planning between levels of governments and forming new partnerships to share resources and

information. There was a change in the funding of social programs. The Established Program Funding (EFP) to provinces to support health and education as well as the Canada Assistance Plan (C.A.P.) were replaced with the Canada Health and Social Transfer (C.H.S.T.), resulting in decreased funding for municipalities, representing an erosion in the social safety net. There is increased concern over the environment, and principles of sustainable development are gaining much attention. Further the Healthy Cities movement takes a holistic view of health to include social, economic, and environmental considerations. Community development principles are now popular again, and community participation in defining problems and decision-making is on the forefront. Citizens are demanding that government be more accountable for its expenditures and results. There are many factors that contribute to individuals' concern for their quality of life. Without going into detail, some of these are: the shift in Canadian demographics in terms of an aging population and growing concerns regarding the healthcare system, increasing social problems in urban centres (e.g. crime, teenage pregnancy), globalization, rapidly changing technology, an increased realization that quality of life is a determinant of economic development, a dissatisfaction with current indicators that supposedly measure progress, and a prevailing notion by those in the social sciences and social services that we continue to rely too heavily on economic indicators to define our society's progress, and frustration in their continued inability to affect social policy decisions.

As David Hay (1993) suggests, it is a time of increasing demands for meaningful participation in public and private decision making, and a time of fewer and fewer

resources to meet an increasing plurality of claims. Information on what contributes to well-being or quality of life is therefore useful for social planners, policy makers, and practitioners involved in service planning and delivery. This is reflected in the move toward Quality of Life Research becoming more a part of a planning process than strictly adhering to specific models. Overall as stressed by Judith Innes (1990), there is a fundamental need in modern society to measure itself and determine what direction life is moving in, and attempt to improve quality of life. As David Sherwood (1996), points out the popularity of Quality of Life comes in part from the fact that everyone aspires to it, people can identify with it, as each of us interprets it based on our own values and expectations.

There appears to be a general consensus amongst economists, social scientists, politicians, and citizens that there is a need for improved measurements that capture more than economics. Economists and researchers are recognizing that all of the facts are not being considered in the traditional economic indicators, which led to the development of some new measures in the mid 1990's. As Messinger and Sauve (1996) point out, there is a lot of concern that GDP does not accurately reflect a society's health, its infant mortality, morbidity, suicide rates, crime, individual poverty, or reflect environmental or ecological health.

At the 1996 Symposium on Measuring Well-Being, Messinger and Sauve pointed out that certain events, such as natural disasters might actually contribute to GDP, because they result in increased expenditure, however they do not reflect their effect on individuals or society. This indeed was true in the case of the 1997 flood in

Winnipeg, Manitoba. An example utilized by Henderson (1989) to make this same point was the Exxon Valdez tanker that ran aground spilling oil, killing millions of animals, and costing millions of dollars to clean up. In this situation, the jobs created from clean up activities in the United States actually caused the GDP to go up. Given that GDP does not link economic health with the social and environmental health of a community, it could point us in the wrong direction for improving overall community health, if we let it. GDP does not address inequalities. It says nothing about who shares in the process and the product, nor does it say anything about the intrinsic worth of an activity. Simon Kuznets, the Nobel Prize-winning economist who was the chief architect of the GDP advised the U.S. Congress that, " the welfare of a nation can scarcely be inferred from a measurement of national income as defined by the GDP" (Rowe, 1998, p.57). He continued throughout his life to emphasize the need for better and more inclusive measures to assess a national economy (Johnathon Rowe, 1998). Economists do not profess that the GDP measures anything more than production, however, for all too long the notion that has been accepted is that a growing GDP means a stronger economy and societal improvement.

There is a growing recognition and admission, however, that an increase in production does not necessarily equate to improved quality of life, particularly for huge portions of our population. Johnston (1988), demonstrated that the year-to-year changes in the performance of the economy, as measured in terms of changes in real per capita disposable personal income, were poor indicators of corresponding changes in quality of life. In terms of quality of life, he looked at: health (life expectancy, infant mortality),

public safety (crime), education, employment, poverty, housing, family stability, and equality (Johnston, 1988). Messinger and Suave (1996) also concurred that increases in GDP do not bring with them automatic improvements in well-being. This is especially evident at the local level, where the majority of Canadian municipalities are facing increased problems with crime rates, homelessness, family breakdown and poverty.

At the Sustainable Europe Conference in Brussels, 1995, it was reported that in several developed countries, the calculation of an "Index of Sustainable Economic Welfare", which incorporated values for environmental degradation, resource depletion, unpaid labour and inequity of income distribution, demonstrated that peoples quality of life had been declining since around 1970, even though conventional economic indicators continued to increase. Standard measures of economic output lack any indication of how output is distributed, and therefore do not provide insight about the levels of inequality, poverty, welfare dependency, or homelessness. Standard measures of economic output do not address well-being (Miles, 1985). Redefining Progress, summarizes the problems with the GDP: it states that the GDP treats crime, divorce and natural disasters as economic gain, ignores the non-market economy of household and community, treats the depletion of natural capital as income, increases with polluting activities and associated clean-ups, takes no account of income distribution, and ignores the drawbacks of living on foreign assets (Jonathon Rowe, 1998).

The limitations of the Gross Domestic Product (GDP) have been recognized and the World Bank and U.S. Commerce Department are starting to make modifications to take into account environment and human resources. As earlier mentioned, Henderson

(1996), describes the GNP as a one-dimensional indicator measuring the health of the economy, at the expense of the environment and society.

The World Bank, in 1995, came out with a new Wealth Accounting System, which included four kinds of assets: natural capital (environmental resources); produced assets (factories, infrastructure, financial assets); human resources (educated, healthy, productive people); and social capital (families, communities, institutions). Henderson (1996) pointed out that these new rankings identified at least 60 percent of the wealth of nations as human and social resources, 20 percent was attributed to nature and the balance of 20 percent to "produced assets", (previously these were the primary focus). Major statistical agencies and researchers continue to make modifications to GNP to expand its usefulness. The first green GDP was released in the United States in 1994, which accounted for natural wealth. Green taxes are becoming more common with the increase in principles of sustainable development (Henderson, 1996).

The Human Development Index (HDI), of the United Nations is gaining public recognition. It ranks 173 countries by a measure that combines life expectancy, educational attainment, and basic purchasing power. The Human Development Reports come out annually and have addressed such topics as the global poverty gap, jobless economic growth, human security, sustainable development criteria, and global gender inequalities.

Although Henderson (1996) praises such new measures for raising the issue of human value, or as she describes it "the real wealth of nations", she along with others, such as Herman Daly and John Cobb (1989) recognize problems with single number

indices in terms of aggregating diverse elements. The concern is that new measures are utilizing economic methods, which include traditional weighting to aggregate diverse elements, resulting in underlying assumptions being lost. Henderson (1996) and Daly (1989), developed the Index of Sustainable Economic Welfare (ISEW), which formed the basis for the General Progress Indicator or (GPI) released in the United States in 1995. These authors suggest that a single number index is not preferred. However, in terms of gaining popularity via media coverage, the single index appears to get more recognition. Hazel Henderson, came up with her own Country Futures Indicators, which are unbundled so as to avoid "overaggregation and mystification...to be transparent, multidisciplinary, and accessible to the public." (Henderson, 1996). Henderson's CFI included a reformulation of the GNP to correct for what she refers to as errors as well as an additional list of stand alone indicators to complement the GNP. Her work represents a model, which however was never wholly implemented.

Additional new measures include the Genuine Progress Indicator (GPI), the Fordham Index, and the Personal Security Index in 1999. The GPI is a composite measure of sustainable economic welfare, which is based on a reconfiguring of the GDP and subtracting government expenditures, which are considered curative (Messinger, 1996). Additional social costs such as economic costs associated with crime, family breakdowns and natural disasters are also subtracted, as well as environmental damage and resource depletion. The GPI also attempts to deal with personal issues such as quality time and leisure. Some of the criticisms of this new measure according to Messinger (1996) include such things as: aggregation limitations "difficulty and

arbitrariness involved in aggregating social and economic indicators", the difficulty attaching dollar values to all variables, and although it captures some elements of natural capital it fails to capture elements of human capital, and it is difficult to measure resource depletion. Messinger (1996) concluded that there is a widening gap between GPI and GDP in the United States. In his attempts to adapt the GPI to Canada, Messinger (1996) identifies that while the Canadian GDP has increased, the GPI has not risen.

The Fordham Index is another American measure. Robert Suave at CCSD's (Canadian Council on Social Development's) Symposium on Measuring Well-being and Social Indicators (1996) described it as "an attempt to measure the well-being of American society by addressing particular social concerns". The Fordham Index measures sixteen socio-economic indicators: infant mortality, child abuse, child poverty, teen suicide, drug abuse, high school drop-out, average weekly earnings, unemployment, health insurance coverage, poverty among the elderly, health insurance for the elderly, highway deaths due to alcohol, homicides, food stamp distribution, housing and income inequality. It includes a method of ranking and an overall index is generated. The general findings demonstrated that while GDP continued to increase in the States the Fordham Index or social health showed a decline. When a replication was attempted utilizing Canadian data, the results showed that while GDP increased, the social health index remained constant. (CCSD Symposium 1996). Once again, it points to the limitations of the GDP for looking at social health or quality of life issues. There are also many concerns with the new composite indexes, in terms of the aggregation of such diverse elements.

A new Canadian index is the Personal Security Index (CCSD,1999), which attempts to gauge how confident Canadians are about their economic and physical well-being. The Canadian Council on Social Development developed this index. This measure is based on an analysis of national data and custom polling. The first edition looked at changes between 1980 and 1998. The PSI will next report on changes that have taken place since 1999. Economic Security looked at employment, disposable income, personal debt, and income security programs, while physical security focused on health, healthcare, safety from injury and crime. The findings suggest that overall Canadians' economic security has weakened over the last two decades, while their physical well-being has improved (CCSD, 1999). Problems with this work include the spatial scale of this study, and the difficulty of using individual survey results, based on individual perceptions of safety and security, to infer a broad Canadian perspective. As previously discussed in the historical perspective, several researchers have commented on the importance of the unit of study, especially when dealing with social issues and subjective indicators, as these can change drastically from neighbourhood to neighbourhood. This would be of greater use at a neighbourhood level where it might possibly result in some local planning or action. Nonetheless, it draws attention to social issues other than economic when viewing society.

One of the pressing needs for further Quality of Life Research is the need to continue to work on better measures of Quality of Life. Although there has been some initial work, primarily in the United States, on new composite measures to augment the GNP/GDP, there is much refinement required and much work to be done in order to gain

the credibility of traditional economic measures. It has also been stressed by many that composite measures may not be the best solution when dealing with such complex social indicators (Henderson, 1996; Wish, 1996).

This renewed interest in attempting to create new and improved measures including both social and environmental issues, is a step in the right direction, as providing information may act as a stepping stone to getting specific issues on the political agenda. In order to make sound policy decisions, good information is required. Communities are taking action, conducting community audits, establishing benchmarks and producing progress reports no longer immobilized by the imperative for perfect measures. Communities are learning from experience, gaining insight from each other, and accepting that the process is as important as the results (Atkisson, 1996; Beslame and Mullin, 1997; Canadian Council on Social Development 1996; Dilks, 1996; Gerein, 1998; Willms, 1991).

In the past there has been criticism that indicator projects do not change anything. However there appears to be much more optimism about the provision of good information being able to inform decision-making. This has fueled a renewed interest in establishing credible, reliable indicators of quality of life. Few would argue that traditional economic indicators such as the GDP, CPI, Toronto Stock Exchange, and the value of the Canadian dollar do not lead to change. Movement in these familiar concepts generally creates action. Yet, social statistics regarding child poverty, teenage pregnancies, and drug abuse have been much slower to get a reaction. Economic indicators are tracked every minute of every day, as opposed to social statistics, which are

often only collected on an ad hoc basis or once every five years as in the case of the census (Ross, 1996). The Canadian Social Trends, for example, does not document the same trends or social phenomena from one publication to the next. No wonder the move is toward establishing composite indices or refining existing economic indicators to more accurately reflect social and environmental concerns. As Henderson (1996) suggests, statistics change our worldview and what we pay attention to. She stresses however, that they are not all objective and value free. What we measure is based on our values and definitions of a problem.

There appears to be more of a buy-in to the fact that social concerns have long term economic cost implications. This is a particularly easy sell in terms of health related issues in a publicly funded health care system. Further, globalization and rapid changes in technology have hit home the idea that in order to compete in the global market Canada requires highly skilled and educated workers. According to Sherwood (1996), there is a growing awareness of the quality of life as a determinant of economic development. This is the inverse of the conventional wisdom. He suggests that as Canada moves to a post-industrial knowledge based economy, economic activity will increasingly be a result of highly skilled labour rather than the traditional raw materials and transportation. Given this, attracting and keeping well-educated people in a time of ease of mobility will become much more important to municipalities, provinces and nations. The quality of life becomes an investment for governments, and there is a need to focus on what contributes to QOL. Jason Jordan of the American Chamber of Commerce Executives, speaks to Quality of Life and redefining what is important. He suggests that few would

now argue that substance abuse and addictions do not carry heavy costs to individuals, families, businesses and communities (Jordan, 1996). He goes on to say that data and information-driven decision making is increasingly more important to executives around the world (Jordan, 1996).

Another reason for the resurgence of social indicators in Canada, particularly at the local level, was changes to the funding of social programs. (See Chapter one, this report). The concern about how this would affect the future of social programming and our social safety net caused a myriad of research projects at the local level. Local governments across the country were scrambling to do inventories of programs to start to identify their current state, and to find measures that would identify the impact of federal funding cuts.

Additionally, in times of fiscal restraint, when resources are scarce and there are many competing interests, research gains importance in terms of informed decision making. At the same time in Canada, the issue of Aboriginal self-government lent importance to the notion of empowerment and community participation. Communities needed a way to analyze their conditions and resources, to understand the relationships among factors contributing to their well-being or decline and to determine their priorities. As Gerein (1998), suggests; "What is needed to enable community development is a tool which involves both the process of gaining self-knowledge and reporting on conditions in a credible way while empowering the community to gain a unified direction in pursuit of its vision" (p.24).

The sustainable development movement and the healthy cities movement brought about another need for Quality of Life Research. Both of these movements demanded an expansion of traditional economic indicators and there was great interest in environmental sustainability as well as a more holistic view of the concept of health. According to Sawicki & Flynn (1996), the impacts of globalization, increasing urbanization, population growth, and environmental decline on health and human development gave rise to the World Health Organization's (WHO) 1985 Healthy Cities Project. Trevor Hancock, one of the pioneers of this movement stressed that creating healthy sustainable communities was one of the major challenges of the 21st century. He argued that in order for economic activity to assist in human development it had to be " indefinitely sustainable, both environmentally and socially" (Gerein, 1998). The need for QOL research therefore arises because it is a time when there is growing concern that our societies are unable to continually provide the conditions necessary to enhance, or even sustain individual and collective well-being.

Global concern for the environment has also led to the sustainable development movement. The 1992 Earth Summit in Rio de Janeiro was a serious beginning by nations to commit to caring about the natural environment on a global basis. Henderson (1996) stresses the need for new indicators at the local, national and international level in order to create more sustainable societies. The majority of community indicator projects are derived from sustainable development principles, the most noteworthy being the Sustainable Seattle Project; one of the most commonly referred to community indicator projects. In 1995, there was a National Round Table on the Environment and the

Economy in Ottawa and a Task Force reported on the environment and the economy from 1991 to 1995. It concluded that Canada did not have adequate information to monitor, assess and report on its sustainable development progress. A need was identified and recommendations were put forward (Hodge, Holtz, Smith and Baxter, 1995). Hodge et al. (1995), defined the concept of sustainable development as " a parallel concern and respect for the ecosystem and the people within – not one or the other not one more than the other, but both together". The key characteristics of urban sustainability that are often mentioned in literature and policy documents include: inter-generational equity; intra-generational equity (including social, geographical and equity in governance); protection of the natural environment and the importance of living within its carrying capacity; minimal use of nonrenewable resources; economic vitality and diversity; community self-reliance; individual well-being and satisfaction of basic human needs (Schwartzentruber, Baker and Shookner, 1997).

The Community Indicators handbook suggests that there is a lot of overlap between sustainability indicators and quality of life indicators. It notes the primary difference is that sustainability indicators have a greater emphasis on the long term, environmental issues and resource use as it pertains to economic vitality and human well-being. QOL indicators, on the other hand, focus more on factors affecting current living standards (Tyler & Associates, 1997). Sherwood (1996) also points out that the quality of life has been given impetus by the incorporation of sustainable development and healthy community's principles in Canadian public policy. He suggests that municipalities are more aware of the relationship between the environment, the economy

and social well-being, and want to measure their quality of life as defined by these integrative principles. According to Gerein (1998) the concept of community QOL has broadened with the growing public awareness of environmental issues and sustainable development and the concept of the healthy city related to public health. In order for communities to progress in the direction in which they want, it is imperative to have a better understanding of factors that influence Quality of Life, and they require indicators and methods of measurement for this.

C. Impediments (barriers) to Quality of Life Research

First, I will focus on the limitations of the Quality of Life research as it relates to research done from a community perspective. The focus will be on urban analysis, the current work of most municipalities. Urban analysis refers to studies that describe the social conditions (or quality of life) of a population found within a geographic area and compares them to other areas or to some desired condition. Such studies are generally designed for application and maintenance at the local or regional level.

One of the barriers to such QOL research, which may also be viewed as strength, is the diversity in terms of interest in QOL research. Environmentalists, community planners, public health officials, educators, social scientists, bureaucrats, and politicians are all concerned with QOL at the community level. Each profession has studied it from a different perspective. This is really a political issue, as different fields of study attempt to utilize information to further their particular cause or interest. This plurality of interest

however, has been detrimental to the establishment of a preferred or consistent model, as varying interest groups have been slow to get together.

Criticism also prevails with regard to a lack of consistency between studies in terms of their findings. There is no one agreed upon model or set of indicators. This has plagued QOL research and impacted negatively on its credibility in the past. Michael Carley (1981) suggests that social indicators are complex, more so than economic indicators and that there are theoretical problems in terms of social indicator research. According to Carley (1981), "Lack of theoretical development and implied causation haunt urban social indicators, and the more closely they are allied to resource allocation decisions the more this is the case"(p.144). There are problems with validity, as often indicators are utilized that have an ambiguous relationship to general concepts such as poverty.

Some argument exists as to whether or not social reports, or trend reporting is anything more than the reporting of social statistics because they often lack a clear conceptual framework. Regardless, such reporting is important as the more variables that are examined, the more apt we are to identify meaningful, potentially testable social indicators. Carley (1981) argues that the creators of social reports are not simply reporting facts. The very selection of some data and the exclusion of others, the choice of disaggregations and the method of arranging subject material are all normative acts based on some implicit theory as to the nature, and the important components or domains, of human welfare. Henderson (1996) suggests that social statistics are far from objective, as there are value-laden decisions in terms of what we measure. There has been much

debate over the lack of theory or causal relationships but all discussion leads to the need to continue on. According to Carley (1981) and Moser (1973), social indicator theory was likely to develop as economic theory did: whereby indicators and theories developed parallel to each other and focused on middle range theories specific to certain fields, eventually leading to more general theory. Fanchette (1974) suggested that economic models be made socioeconomic models by the gradual inclusion of social variables, and to some extent that is what has happened. Carley (1981) goes on to suggest that given the difficulties associated with constructing social models and relating empirical data to theory, researchers have instead concentrated on descriptive social indicators (describing social states and changing trends) and the more prescriptive function of indicators for policy-making and planning based on measurements of selected indicators. A significant issue is that there are no agreed upon standards or targets of social norms with regard to crime rates and teen pregnancy. For years there has been an ongoing debate about what constitutes poverty, although there are some credible measures.

After reviewing the literature on QOL, as reported in CMHC's feasibility study the Institute of Social Research at York University stressed that most attempts to model QOL using regression analysis have met limited results, whether for subjective indicators or objective indicators, individual based QOL or places. The rationale was that it was inappropriate to assume a linear relationship between variables and that a more complex non-linear relationship was likely more appropriate. Basically they determined that given weak findings it was not advantageous to pursue a formal regression modeling approach.

As stated, "These are complex issues dealing with the idiosyncrasies of individual perceptions and behaviour. There is simply too much noise and likely too many intervening variables to justify the development of a predictive model using regression analysis" (Bates, Murdie and Rhyne, 1996, p.6).

The need for consistency in indicator selection was recognized by Sherwood (1993), and CMHC proposed a model that would provide some of that consistency that they hoped would be utilized in the future. (Refer to Appendix C, for the Community Oriented Model of the Lived Environment). Dilks (1996) refers to a Canadian Indicators Workshop, in which participants favoured the notion of developing a set of national common urban sustainability indicators that could be modified at the local level to suit the needs of individual communities. Once again, more recently, in the area of sustainable development there has been an attempt at gaining some consistency. Both the Healthy Cities and Sustainable Development movements are assisting in moving toward clear models or concepts in which to utilize social indicators to look at Quality of Life.

In 1987, the World Commission on Environment and Development (Brundtland Commission) had on its agenda, the development of new ways to measure and assess progress toward sustainable development. This was further echoed by the 1992 Earth Summit, which encouraged corporations, academics and communities to consider the notion of sustainable development. Finally in 1996, an international group of researchers and measurement practitioners from five continents came together at the Rockefeller Foundation's Study and Conference Center in Bellagio, Italy, and established some

international guidelines for assessment of sustainable development, now referred to as the "Bellagio Principles". These principles serve as a guideline for the whole assessment process including selection and design of indicators, their interpretation and communication of results. (The Community Indicators Handbook, 1997). (Refer to Appendix D for an outline of the Bellagio Principles.) Although, this was based on principles of sustainability, the guidelines are general enough to be useful for the development of any social indicators.

Another recent group is "Redefining Progress", a public policy organization which has identified a need for new measures of progress at the national and local levels. The purpose of "Redefining Progress" is to stimulate dialogue and share information about trends in community indicator research. This community indicators network links over 125 indicator projects around the nation and provides tools and resources to help promote their development. They were instrumental in putting together the Community Indicators Handbook, along with Sustainable Seattle and Tyler and Norris Associates.

Nonetheless, Quality of Life research in terms of urban analysis is still in its early stages. The project with longest duration is the Jacksonville Project, which commenced several years ago, and inspired many other communities to follow suit. Earlier works including Lui,1976; Flax,1972; Palys,1973 and Sherwood,1993 all involving urban analysis were not repeated. These studies provided measures of indicators for specific areas at a snapshot in time only. There is a lack of continuity, in terms of tracking change or progress, since there was no process for ongoing measurement.

In terms of community indicators, one of the most significant barriers, identified early one that still remains a barrier today, is the lack of available data. All too often, measures or indicators are selected based on availability of data rather than theory or logic. This is extremely important, as a criteria for indicators is validity or the extent to which it measures the phenomenon or concept it is intended to (Rossi and Gilmartin, 1980). If we have to rely on substitute measures because what we want to measure is not available, it impacts on the validity of our research. For example, there are no consistent measures for homelessness, children in care, drug and alcohol dependency, fetal alcohol syndrome, or mental health as municipalities define and track variables differently. Similarly, Statistics Canada has difficulty with a valid measure of housing cost comparisons due to the complexity and ability to take into account quality and like neighbourhoods. Problems with data availability have consistently been flagged as an issue at the local level. Toronto, Hamilton-Wentworth, Winnipeg, Seattle and Oregon have all reported problems with data availability. This happens at the community level, and is compounded if one is attempting to achieve comparability across communities. Although different municipalities keep statistics on similar issues, there is not much in the way of standard record keeping other than Statistics Canada. Thus, there is an over reliance on census data. Most census data is only available once every five years, is not available for all Canadian Cities, and it is not consistently available at a community level.

Myers (1987) discussed poor availability of comparative data. Costs associated with obtaining Statistics Canada data at a municipal level also represents a barrier. Therefore, appropriate measures for indicators that should be tracked are not always

available. Carley (1981), speaks to this problem specifically as it relates to urban analysis, suggesting the following problems with census data: it is not inclusive of variables which might be needed; there are difficulties with boundaries of census tracts not corresponding to areas under study; census is taken infrequently; is not always available and it is generally outdated. There are also problems relying on other sources, such as agency data, and community centers, as lack of resources often limit the accuracy of data collection and raises concerns about the reliability of existing data. Municipalities have attempted to have Statistics Canada widen their database, with little success to date. Bauer (1966) stressed the lack of adequate accurate data in terms of social measures.

Earlier work in terms of comparing communities including Boyer and Savageau's Places Rated Almanac, Flax (1992), and Liu (1976), were criticized by Meyers (1987) as having poor availability of comparative data, as well as poor attention to unique local characteristics. The lack of available consistent data at the community level was also a theme that was raised at the Canadian Council of Social Development's Symposium on Measuring Social Well Being (1996). The Task Force, which examined the Sustainability of Canada (1995), concluded that Canada did not have adequate information concerning sustainable development to monitor, assess, and report on progress. The International Institute for Sustainable Development (1998), when working on Quality of Life Indicators for the City of Winnipeg, also noted that ultimately data availability would play a lead role in indicator selection. Wish's (1986) criticism of Johnston's (1988) work to establish a comprehensive Quality of life index was that the

national averages utilized lacked sufficient data to allow for disaggregation at a meaningful geographical level.

Subjective data and survey attitudinal studies, are not often available on a large-scale basis due to costs and comparability of different survey techniques. As Wish (1986) points out subjective data is often neglected in comparison of geographic areas, as data is not available to differentiate and compare the sense of well-being across states, cities, or census boundaries. Wish (1986) states that attitudinal studies have generally measured quality of life in a single city or at a national level, which is limiting. Therefore, comparability on attitudinal type surveys between cities and neighbourhoods is almost impossible (Wish, 1986). The costs of conducting surveys for a particular study are generally prohibitive, and thus they limit the use of both subjective and objective measures in most inter and intra- urban analysis.

The issue of geographical unit of analysis is also a problem. Because of lack of data, the unit of study selected is often not the most appropriate. As Wish (1986) suggests, the quality of life within most municipalities varies significantly and therefore the unit of analysis, unless at a neighbourhood level is highly questionable. Wish (1986) points out that the quality of life in the suburbs is generally significantly different than in the inner or central city. It has been extremely difficult to get good consistent data at a neighbourhood level, although this is the direction in which some municipalities are moving with a specific focus on inner city neighbourhoods. Smaller more homogeneous areas of study are recommended by many including Palys (1973), who attempted to

replicate Michael Flax's well known American study, utilizing ten Canadian urban centres; Wish (1986); Murdie, Bates and Rhyne (1996) and Myers (1987).

Another significant barrier to Quality of life research at the local level is the problem with cost and continued support for maintenance of a project. Although, initially there may be support, with changing political leaders it is often difficult to maintain support for projects. The sustainability of such projects, in terms of continued tracking of the same indicators over time, must be addressed upfront. This is another reason why available existing data is often utilized, as it lends itself to sustainability. This is an issue that continuously comes up at the local level. To date there is a significant lack of longitudinal tracking of social indicators at the local level for urban analysis. Earlier studies such as Flax (1972), Liu (1976), Plays (1973), and Sherwood (1993), although quite methodologically rigorous, were only done once for comparability. Thus they could not identify changes in the various cities in terms of quality of life. In this respect some of the urban analysis today is quite significant in terms of identifying changes in social conditions. Rossi and Gilmartin (1980), speak to the need for commitment for both initiation and maintenance to develop and use social indicators. Sufficient funding is required in order to create and maintain new data sources. Also the compilation and processing of social indicator data requires consistent reporting.

In terms of the different initiatives happening at the local level in the United States and Canada, one of the problems is the lack of resources committed to the analysis or development of new social indicators. There is much activity with respect to tracking indicators. Technology has assisted in obtaining social statistics, however the resources

in terms of time, expertise and financial costs are not often associated with the analysis of many of these projects. Without comprehensive analysis, or much attention given to the presentation, the usefulness of many Quality of life studies or social report cards, for affecting social policy is limited. Also, given that social indicators may not lend themselves to the formation of composite indexes, they are not as popular. As Bates, Murdie and Rhyne (1996) point out in their feasibility study of monitoring quality of life in Canadian communities, there has been much criticism of the objective social indicator studies including; " the lack of social theory to guide the selection of indicators, the non-representativeness of variables, low or poor accuracy of measurement, and the lack of suitable data at the local level" (p.3).

The current trend with local analysis at the community level, which involves community participation, and is resulting in annual report cards and benchmark reports, is attempting to identify new social indicators. Some of these more simplistic report mechanisms are less burdened with methodological issues than typical social science research, which should help move the effort along in the formulation of new measures of progress. Common methodological issues however continue to consist of the weighting of variables, scaling of data and the validity of summing data for individual domains to obtain a single QOL measure. (Wish, 1986; Myers, 1987; Bates et al. 1996; Willms, 1991; Cutter 1985).

D. The Most Promising Models or Projects in Existence

Again, I am focusing my efforts on those community indicator projects that involve some type of urban analysis or study of quality of life at an inter or intra urban level. This has been a popular direction in the late 1980's and 1990's, both in terms of examining community livability in terms of quality of life, and in terms of planning and identifying targets for progress.

As Bates, Rhyne and Murdie (1996) point out, in the mid-80's there was a rejection of modeling in the social sciences and an emphasis on looking at the differences and unique qualities of local areas. QOL research became more policy oriented and there has been a continued attempt to make a more direct link to policy and planning. Myers (1987) suggested the 'community trend' QOL methodology for planners, which is based on QOL being a local experience and people judging community liveability by trends over time in various aspects of local QOL. What has emerged as popular is really a process to be followed. Myers (1987), suggested four steps to be followed: 1) identification which was to include a review of professional literature but also a consultation process with local leaders and various interest groups; 2) the collection and processing of objective data; 3) the inclusion of subjective data by survey, opinion polls; and 4) written reports for dissemination to the larger community.

Currently there exists a myriad of community indicator projects, some more sophisticated in their approach than others, but the ones that are fast gaining recognition

and hold promise for future direction include the following common features or principles:

- A strong participatory component, where area residents are involved in selecting what is important to them or what factors contribute to their quality of life.
- The use of both subjective and objective measures
- The use of social, economic and environmental measures
- The ongoing tracking of consistent data and some type of annual reporting and analysis
- Avoidance to construct an overall summary index of QOL
- Attempts to examine linkages between variables

Although there does not appear to be one distinguishable leading edge model, Sustainable Seattle has won awards, and has been the most frequently cited example at the local level in recent literature. Quite likely, it has been one of the most influential in terms of others attempting similar processes. One can certainly see similarities to Myer's community trend methodology. However, Sustainable Seattle is much more rooted in the more recent framework of sustainable development or focus on the environment. What is of particular relevance in this model is its very comprehensive public participation process. It was very much the community- based model, which has gained it widespread recognition. It also consists of a fairly comprehensive list of measures, including not only objective indicators, but also subjective measures of social well-being.

Sustainable Seattle represents a volunteer network and civic forum working together to identify a way to measure long-term community well-being and a move toward sustainability. Sustainability is defined by Atkisson (1996) as "long term health and vitality-cultural, economic, environmental and social" (p.134). Sustainable Seattle grew out of a one day conference in November 1990 sponsored by the Washington D. C. Global Tomorrow Coalition in which community leaders from all facets of the city came together to do some visioning and discuss issues of sustainability. They are tracking 40 indicators, selected from an earlier list of 99 recommended by a civic panel of 150 citizens convened by Sustainable Seattle in 1992. The data was gathered from a variety of sources including public information, synthesis of existing research, and public opinion polling. There have been numerous community consultations and forums for discussion purposes. Sustainable Seattle is really a citizen group including civic employees which have taken on responsibility for educating the public about issues of sustainability, developing resources and tools to allow them to monitor their progress and track best practices in terms of sustainable living. To date, they have put out three reports, which are more substantial than some of the other annual community report cards.

For each of their indicators, their report includes: 1) a description of the indicator, which addresses how it fits with sustainable development; 2) a definition of the indicator to provide a clear understanding of the measure; and, 3) evaluation which speaks to their progress towards sustainability for that specific indicator and linkages which attempts to identify the link to other indicators that are being tracked. Data is also presented in graph

form, so the presentation is such that you visualize progress and then find a descriptive analysis. One thing that is missing is the data source for each indicator on the same page as the results. They have attempted to look at ratios, and utilize variables together to be more informative. For example, vehicle miles and fuel consumption is looked at together to determine progress in terms of fuel efficiency. Refer to Appendix E for a sample of Sustainable Seattle's reporting.

The indicators are divided between 5 large categories or domains, which include: Economy (which does take into consideration distribution of income and gaps), Environment, Health and Community, Population and Resources, Youth and Education. For example, under Health and Community, measures include: youth criminal activities, as a ratio of the ethnic percentage of population, birthweight by ethnicity, annual Seattle childhood asthma hospitalization rate, off-year primary voting, attendance at Seattle Community Centers, library circulation rates, public participation in the arts by category, gardening activities in King County, neighbourly activities and sense of well-being in Seattle. Under Youth and Education, measures include: state literacy rate, twelfth graders proceeding to graduation, teaching staff diversity compared to student population, volunteers in schools, juvenile crime – police referrals and information filed. They do not get into weighting particular domains or indicators, nor do they come up with an overall index, but look at the 40 indicators separately in terms of progress. They also do not set specific targets as some communities have since done. They look at their progress toward improved sustainability and well-being as well as comparing themselves

to national averages. In terms of the sustainability framework, there have been some standards that have become institutionalized, such as water quality and air pollution, which has not been the case with most social indicators.

In terms of the community indicators movement there is similarity in terms of domains and indicator selection, although sometimes the terminology is somewhat different, depending on whether the project was developed within the framework of Healthy Cities, Quality of Life or Sustainability.

In terms of the Quality of Life framework, Gerein (1998) quotes from a dissertation completed by Hovik (1990), which demonstrates the inclusiveness of the Quality of Life Research:

> Quality of life can be characterized by a sense of economic well-being and by a set of social objectives and factors. A good life comes from the opportunity to work, to work at a job that is satisfying, that will afford an income that is sufficient to cover the necessities, and that will provide the opportunity to improve one's income. The quality of life is the extent to which the environment is clean and healthy, the community is safe from crime, and sufficient education is available to enable one to take part in society and make the most of one's abilities. Well-being is the extent to which one has quality and affordable housing in a congenial environment and in the absence of threat and bias, and the time and opportunity to enjoy one's free time and the cultural

> amenities of the community. Quality of life is the freedom to choose among the alternatives and to avail oneself of the opportunities fairly (Gerein, 1998,p.35).

As Gerein (1998), points out QOL and sustainability reporting have many similarities, however QOL does not pay the same attention to issues of intergenerational equity, as does the sustainability movement. Sustainability's main focus is on the balance between humankind's demands on the earth and the maintenance of the earth's natural capital. In terms of the Healthy Cities movement, Hancock (1996) describes the movement's conceptual model as having health or human development at the centre of three equivalent and overlapping rings: community conviviality, environmental viability, and economic adequacy. Community conviviality refers to the social processes and relationships necessary for human development. Environment refers to the ecosystems that support community. Economic being includes ensuring that individual basic needs are met (Gerein, 1998). (Refer to Appendix F for an illustration of this conceptual model.)

A model that is of particular interest, however and has not been repeated, is the Community Oriented Model of the Lived Environment (COMLE). The Canadian Mortgage and Housing Corporation commissioned the Institute for Social Research (ISR) at York University to undertake a feasibility analysis of modeling quality of life indicators in Canada. The Institute for Social Research then came up with two models, the COMLE model being the preferred model. This model is more directly related to

policy issues at a municipal level. It also incorporates ideas from both the sustainable development and healthy city perspective. This model drew heavily from a discussion paper completed by Metro Toronto's planning department, "Towards a Liveable Metropolis", which now constitutes their official plan - "The Liveable Metropolis". As the Institute for Social Research describes the model it; "reflects a more holistic and multisectoral approach to evaluating QOL issues at the local level" (Bates, et. al., 1996). The basic notion of the model is that the liveable metropolis is defined by three interrelated components: economic vitality, social well-being and environmental integrity.

The COMLE model was pilot-tested in 1992 in three municipalities: Quebec City, Toronto and Fort McMurray. I will attempt to give a brief summary description of the model, as well as some recommendations for improvement as outlined by the Institute of Social Research (ISR), York University, at the conclusion of the pilot test. This model draws from recent work on 'sustainable environments' and 'healthy cities', however it focuses more closely on policy related issues important at the municipal level. (Refer to Appendix C for an illustration of the model, focusing on the Housing Sector as an example). The COMLE model outlines the principal sectors of the urban environment, which impact the components of liveability. Each sector has a series of indicators developed which measure both inputs (physical infrastructure or dollars expended) and outputs. For example, the percentage of population without a high school diploma. Each of these indicators can then be compared to a norm or societal expectations to determine liveability. The visual model consists of four headings that appear in columns. Sectoral

Policies/Programmes is the first column and lists most of the sectors that municipal government have some responsibility for and would address in terms of policies. Sectors listed include: housing, land use, transportation, environment, employment and commerce and related services delivered at a local level such as recreation, police and fire protection. The second column, Components of Liveability, shows the major dimensions by which each Sectoral Policy/ Programme should be evaluated. The components of liveablility include Economic Vitality, Social Well-Being, Environmental Integrity and Cultural Congruence. Each sector (or broad category) is considered in terms of these four components, to determine on what it should be evaluated. The next column is Indicators of Liveability, whereby an attempt to identify indicators of the different programs and policies is suggested, and finally specific measures for indicators are considered. For example, utilizing housing as a sectoral policy to be considered, an applicable liveability component would be Economic Vitality. An indicator of that would be employment. Specific measures of employment suggested would include, housing units built per annum and the value of building permits. When considering Housing, under the Social Well Being component of liveability, indicators would consist of affordability, suitability, adequacy, accessibility, homelessness, and advocacy. Specific measures of the affordability indicator, include, the percentage of tenants who spend 30% or more of their household income on gross rent. Measures of suitability include the average number of persons per bedroom, or the National Occupancy Standard, for adequacy, and percentage of dwellings in need of major repair. When Housing is considered under the Environmental component of liveability, indicators such

as density and design are utilized. The differentiation between indicators and specific measures is explained. Indicators express a relationship, causation or correlation and measures represent a surrogate for the indicator representing a social statistic. Many of the specific measures utilized in the COMLE study were input measures such as the magnitude of the expenditure for a given service, however it was noted that more of the measures should be output measures as this is what impacts quality of life, and without corresponding output measures impact is difficult to grasp. Specific measures rely on data availability. (Sherwood, 1996).

There was an evaluation of the COMLE model completed by participating municipalities and researchers, which addressed issues of practicality, affordability, adaptability, usefulness, and whether it would be recommended for use by others. The evaluation was fairly positive and contained a number of recommendations for future use. Recommendations included: the expansion of indicators of liveability; the incorporation of measures specific to the environment; a reduction of economic measures; consolidation of measures related to social well-being; substitution of output measures for input measures where feasible; the enhancement of the model through GIS (Geographic Information Systems); the inclusion of qualitative indicators based on sampling techniques; public consultation, particularly for public services where the conceptual links between inputs and outputs are not well developed and objective indicators are difficult to obtain or not very reliable. The author concluded that there was a need to " develop measures that are consistent over time and space" (Sherwood, 1996).

Although the review was positive, this model has not been fully replicated since. Portions of it are reflected in some work being undertaken at local levels today. Additionally, Canada Mortgage and Housing Corporation and Environment Canada have developed a draft software package "Sustainable Community Indicators Software – Applications and Proposed Indicators" to assist municipalities in maintaining and sustaining community indicator projects, which is reflective of the COMLE model. It is proposed that this software package will be available June, 2000. The Federation of Canadian Municipalities is currently entering data from the Quality of Life Study into this software to form part of a database. This will represent a state of the art mechanism in terms of generating reports and acting as a depository for information on Canadian municipalities.

This literature review was undertaken with several goals in mind. These included gaining a better understanding of how quality of life has been conceptualized over time, identifying some of the barriers or impediments to establishing a framework for monitoring quality of life across municipalities, identifying the areas or domains commonly examined and the indicators or measures most often used in each domain and reflecting on some current state of the art QOL projects. This review of the literature informed the development of the Federation of Canadian Municipalities Quality of Life Reporting System, and more specifically my work on the Community Affordability indicator.

III. Getting Started

A. Origins of the FCM Quality of Life Reporting System

There has been a longstanding interest in measuring where we are, where we have been, the nature of the change, and whether we are satisfied with what is. Social indicators research has been one approach taken to address this interest. However, despite the fact that for decades, numerous disciplines have researched the notion of quality of life and what contributes to it, municipalities today continue to struggle to determine the quality of life in their communities, the impact of social policy, whether things are actually getting better or worse, for whom, and their experience relative to other urban centers.

In 1995, policy decisions announced by the federal government regarding the financing of social programs further highlighted this problem. Since most of the changes amounted to reduced financial commitments, municipalities were concerned about the consequences of these actions on the people and the quality of life in their communities. As mentioned earlier, this concern led to consultations across the country led by FCM and resulted in the Big City Mayor's Caucus commissioning FCM to develop a reporting system that would monitor changes in the quality of life in Canadian municipalities.

It was understood that Canadian municipalities needed ways to analyze their conditions, and resources to understand commonalities and themes across the country,

which contribute to quality of life, and to determine priorities. Municipalities needed a basis for influencing planning, for determining where and how to intervene, for communication with each other, and with other levels of government. Given the fiscal climate and a plurality of interests, the need for good information became even more essential for municipalities at this time. Others were also echoing this need for the development of a standardized model of quality of life, which could be utilized across municipalities. (Sherwood, 1996; Dilks, 1996; Murdie, Bates, & Rhyne, 1996). However, it was only the FCM that took action toward that end.

The Federation of Canadian Municipalities (FCM), is an organization that represents the interests of all municipalities on policy and program matters within federal jurisdiction, and provides a national voice for municipal government in Canada. The FCM has been in existence since 1937. Their members' consist of Canada's largest cities, small urban and rural communities, and the 17 major provincial and territorial municipal associations.

1. Purpose of the FCM Quality of Life Reporting System:

The purpose of the FCM Quality of Life Project was:

- To establish a framework for monitoring quality of life in Canadian municipalities, through the identification of a core set of indicators perceived to be relevant to quality of life by municipalities.

- To establish baseline data, from which to track changes in quality of life.
- To report annually on changes in quality of life.

The overall intent was that the QOL Reporting System would enable the Federation of Canadian Municipalities and participating municipalities to:

- Report on the well-being of Canadian municipalities, on economic, demographic and social trends (and become a voice in public policy debate)
- Monitor and respond to social and economic change.
- Contribute to local planning processes by providing urban community benchmarks
- Identify QOL concerns that require action
- Foster community participation in monitoring quality of life
- Promote cooperation and networking among Canadian municipalities (FCM Technical report, 1996)

Up to this point, there was a lack of consistency in measuring basic information from community to community and from province to province. No one was consolidating the data, even at a provincial level. There was no infrastructure for sharing information between municipalities. (Canadian Council on Social Development, 1996). Any previous comparative studies that had occurred were done on a one time only basis, not to be

repeated. The FCM project was unique in that it marked the first time that municipalities came together, to identify a standard reporting mechanism.

Establishing a framework for consistent reporting across municipalities over time however, posed many challenges. The first was whether it was possible for municipalities to come to a consensus on a core set of indicators that depicted quality of life in a community, a set that was reasonable in number and doable. The second challenge was whether it was feasible to identify measures that are meaningful, that can be consistently tracked across municipalities, keeping in mind technical feasibility including issues of affordability and sustainability. This latter issue of comparable data, is further complicated, given the variance in responsibility for the delivery of social programs across municipalities.

In 1996 the FCM and a team of municipal representatives from sixteen municipalities across the country, set out to answer these questions and address this problem of lack of nationally consistent reporting, by attempting to establish a Quality of Life Reporting System for Canadian municipalities. The team commenced work on this project in October 1996, and as mentioned earlier the first report containing quantitative baseline data was released in May, 1999. The next report is tentatively scheduled to be released in September, 2000. (Refer to Appendix B for an illustration of indicators and measures, Appendix G for highlights of the 1999 report).

B. The Process

1. Organization of the Work: Who, What, How and When

The first face-to-face meeting of municipal representatives and the FCM's consultant took place, October 30th and 31st, 1996 in Vancouver. This marked the beginning of an ongoing journey to establish a tool to monitor Quality of Life across the country.

a. Who did the Work?

The FCM Technical Team was established at the outset of this project to develop the QOL Reporting System, with the consultant and FCM providing overall coordination. The FCM technical team consisted of representatives from the Federation of Canadian Municipalities, consultant, Terry Hunsley and municipal representatives from the sixteen participating municipalities. Representatives from municipalities consisted of a mix of managers, social service administrators, researchers and social policy analysts employed by the municipalities. Some of the larger municipalities had the luxury of extensive research departments and policy analysts, which also acted as additional resources; Winnipeg did not.

b. Work done by the Team

The potential scope of this project was huge, and initial work consisted of goal clarification and reaching a consensus on the purpose and scope of the reporting system to be developed. That included clarification of objectives, and the identification of products or required outputs. None of this was a small feat, considering the diversity of the group. Other important tasks included the identification of potential partners, both in terms of financing and as sources of data. The ongoing financing of this project was of course critical in terms of ensuring its sustainability, and is an ongoing process. I address funding for this project in Chapter Three.

Once some common understanding of the overall project goals were realized by the team, the next task became the identification of a conceptual framework in terms of what domains or categories to include. As previously stated, we identified ten domains or indicators. This, of course, required a review of the literature and existing projects. Early on we identified criteria for indicator selection based on our shared knowledge of current literature, existing projects, and our experience as social service administrators or researchers for local governments. Established criteria for indicator selection and evaluation will be discussed in detail in Chapter Five when it is utilized to evaluate the Community Affordability Measures.

We also collected, shared, and reviewed different reports on social research, indicators, community profiles and trends that each municipality had either completed or could obtain to determine what if anything existed in terms of comparable data and or

reporting mechanisms. Unfortunately, although, many of the same social issues were being tracked, the terminology and consistency for comparability were not present to a large extent across municipalities, when considering locally gathered data, or local government records. For example, each municipality had records about the number of children in care, however how this was tracked and defined was very different across municipalities. It could not be utilized as a valid measure across the municipalities in its present form.

The organization of work, or roles and responsibilities also had to be addressed with the group. It was decided that a lead and support municipality would be identified for each of the indicators, to work with the consultant in terms of development, testing and communication with regard to the indicators.

Another significant piece of work completed by the FCM technical team as a group, was the identification of what was important in terms of each of the indicators, in order to help guide the municipality assigned to work on a given indicator. Since the Community Affordability indicator was viewed as key in terms of the overall impact of federal funding changes, this indicator was chosen to be one of the first indicators to be worked on. The consultant and participants were quick to declare what was most significant in terms of this indicator. An essential issue was the ability to demonstrate trends for different income groups and income inequalities, assumed to be driven at least in part, by the federal funding changes. This indicator was the first to be developed and tested and was utilized as the pilot indicator. Each indicator thereafter was to be subject

to a feasibility analysis following the process that was established for this indicator. The analysis was based on the criteria for selection and included:

- Technical feasibility (The source of data, process required to obtain the data and calculate the indicator, timeliness i.e. if figures are available annually or must be estimated in some fashion, and the date of their release, as well as cost factors)
- Scientifically sound - factors of reliability, validity and responsiveness to change
- Consistency and comparability across regions and countries
- Potential sponsors, public and private
- Relevance for municipalities

Another piece of work consisted of data collection. Each municipal representative was responsible for local data requirements, which were fed to the consultant, and data that was obtained through a centralized organization, such as Statistics Canada, was for the most part obtained by the consultant. For the Community Affordability Measure I consulted directly with Statistics Canada to obtain information as required.

Another task included strategizing around the reporting of the data, and determination of what the annual report would look like and include. This was, for the most part, done on a consensus basis by the FCM Technical Team, however not without some interference from the politicians that municipal representatives reported to, and the FCM's National Board of Directors. This is discussed later under process issues, in Chapter Four.

Lastly, a communication strategy, for the release of the report and its timing was developed. There was a small task force, comprised of a few team members who

strategized to come up with a communication plan. This was presented to the larger group for feedback and final concurrence.

c. Integration of the Literature into development of QOL Reporting System

As noted above, the selection of the core set of indicators was informed by literature, current projects in Canada and the United States, the 'healthy cities' and 'sustainable development' frameworks, as well as our shared knowledge. Some of the lessons from the literature that were integrated into the establishment of the FCM QOL Reporting System included, the consistency among the different conceptual frameworks and interdependency in terms of domains or categories. The most common included Social, Health, Economic and Environment. The generally accepted view was that the indicators selected should maintain a balance among these categories in order to best represent an overall assessment of the quality of life. One lesson learned was the perils of utilizing a composite index or overall summary index of quality of life, including difficulties associated with the weighting of indicators both from technical and political aspects. However, it was noted that utilizing measures together was more powerful and useful. In keeping with that notion, the FCM Technical Team attempted to look at ratios, utilizing variables together whenever possible in order for indicators to be more informative. Also, a review of the literature allowed the team to glean important criteria for indicator selection, to be aware of course of the many problems associated with data availability and the importance of credibility and ease of understanding. Additionally,

some recent local initiatives regarding the measurement of quality of life had become more policy oriented, attempting to link indicators more directly with policies that would fall under local jurisdiction

(i.e. Sustainable Seattle, Oregon Benchmarks, COMLE, and Metro Toronto's local project). These fit well with the intent of the FCM project. Some of the municipalities assuming the lead on specific indicators, opted to utilize a consultative process. They involved community representatives, and other organizations in the development of their measures, a process highly recommended in current literature.

The FCM team relied heavily on CMHC's Community Oriented Model of the Lived Environment (COMLE) in choosing domains or categories from which to select indicators of representation. Three broad domains were initially agreed upon: Social Well-being, Economic and Environment. However, the group ended up focusing more on the first two. This is in keeping with the team's background, in terms of its interest in social policy issues, as well as those most relevant to municipalities.

d. How the Work was Done

The process was based on a consensus model among members of the FCM Technical Team, with periodic approval required from the FCM's National Board of Directors and final approval by the Big City Mayor's Caucus. The identification of a core set of indicators was done through a group process and consensus of the FCM Technical Team.

As previously stated a lead and support municipality were identified on a volunteer basis for each of the indicators. It was the responsibility of the lead municipal governments to work with the FCM's consultant on the development and testing of a specific indicator and to facilitate consultation and explanation of the indicator vis-à-vis other municipalities and interested parties. Winnipeg volunteered to develop the Community Affordability Measure, which marked the beginning of my journey into the development of a measure of Community Affordability.

Communication among the FCM technical team occurred through a combination of face-to-face meetings as a large group in different cities, regularly scheduled conference calls, regular written communication, and email communication as a large group to work on the overall Quality of Life Reporting System. Once the core indicators that form the framework of the QOL Reporting System were identified, and a study of existing data by municipality for comparability took place, the bulk of the work on individual indicators was conducted by specific municipalities assuming lead roles. The larger group was then utilized for consultation, accountability and approval of concept.

Once the technical team had agreed upond the selected measures and methodology specific to each indicator, a presentation by the consultant was made at the Big City Mayor's Caucus to provide an update and obtain approval to proceed. This however, appeared to be more of a formality rather than an actual formal approval process. The consultant also had to present to FCM's National Board of Directors for their sanction of the process and the product to be produced. Presentations to the Big City Mayor's Caucus as well as FCM's National Board of Directors never required the

technical team to alter its methodology. A few suggestions for further additions were received. One example was to consider "homelessness" as an indicator, when that became a sensitive issue. The reporting of results however, became quite another matter, and was definitely much more politically sensitive. This will be addressed in the results section in Chapter Four.

e. Timeframes

As previously stated, the first meeting of the technical team occurred in October 1996. Progress reports were provided at the annual FCM conference and the Big City Mayor's Caucus. The first report released in May 1999 contained quantitative baseline data on eight of the ten indicators. Timeframes throughout the project were constantly adjusted as the process took much longer than initially expected. Two of the indicators, Social Infrastructure and Environmental Issues, continue to be developed. The next report is tentatively scheduled to be complete in September 2000.

2. Funding of the Project

Participating municipalities have been a primary funding source for the Quality of Life Reporting Project, of which Winnipeg was one out of sixteen. Other municipalities included, Vancouver, Burnaby, Calgary, Edmonton, Regina, Saskatchewan, Windsor,

London, Toronto, Hamilton-Wentworth, Ottawa-Carleton, Peel, Waterloo, York, and Halifax. Each municipality contributed $5,000 annually to the project as well as assigning a representative to work on the project.

Initially, funding was also sought from the federal and provincial governments, however it was not forthcoming and it was decided to identify and approach potential partners for specific indicators as part of the ongoing development process. Statistics Canada and Human Resource Development Canada have been significant partners and have made either financial contributions or in kind contributions in terms of work and information.

FCM has recently partnered with Ottawa's Canada Mortgage and Housing Corporation and Environment Canada to utilize their software package, Sustainable Communities Indicator Program (SCIP) for ongoing reporting. This software is intended to assist communities to track indicators of sustainable development and act as a warehouse or central database for similar information.

C. My Role

I have been an active member of the FCM's technical team since the inception of this project in 1996. As a member of the team, I first assisted in the identification of a core set of indicators. This role was shared equally among team members. This involved, reviewing literature, identifying appropriate criteria for indicator selection, identifying

what had been done at a local level and reviewing the various reports in an attempt to identify consistencies of indicators currently being measured, as well as any available data at a nationally consistent level. I also assumed responsibility for obtaining all of the relevant data for Winnipeg and sharing it with the team. My involvement in the overall Quality of Life Project included:

- Strategizing and developing work plans with regards to the overall project.
- The identification of possible sources of data.
- The coordination of all requests for Winnipeg data (which often involved letters of request for information, or meetings with other civic departments or other organizations).
- Consultation with other municipalities in their identification and development of specific indicators for which they assumed the lead (providing feedback on their consultation papers, researching data availability in Winnipeg for potential measures applicable to each indicator).
- The provision of ongoing progress reports on the status of the QOL project to senior city officials, including the Director, the Commissioner of Planning and Community Services, the Chief Administrative Officer, the City Councillor on the FCM board, and the Chair of the Standing Policy Committee on Protection and Community Services.
- Following up on the City of Winnipeg's funding of this initiative, initially through a special request to the appropriate Commissioner, to building it into the regular ongoing budgets of the departments that I have worked for during this project, first the City of Winnipeg's Social Services Department and then the City's Community Services Department.

I have also assumed the lead role in the development of the Community Affordability Measures (CAM 1 and CAM 2), which is the primary focus of this practicum. Assuming the lead role in terms of the Community Affordability

Measure, I set out to identify a measure of community affordability that would gain the approval of participating municipalities. This meant the measure had to meet the agreed upon criteria for indicator selection (i.e. technically feasible, scientifically sound, understandable and relevant), take into account both cost and income simultaneously, and demonstrate changes in affordability for different population groups (specifically those of lower incomes). The question was whether this was feasible in an affordable and sustainable way, and meaningful to municipalities.

My role then involved:

- The design and development of a measure of community affordability in consultation with the FCM consultant.
- Presentation of the instrument and gaining the acceptance of the technical team.
- Testing for feasibility.
- Completing required revisions (which resulted in the design, development and implementation of a local pricing exercise across the municipalities).
- Implementation of the measure (including the coordination of a local pricing exercise and calculation of the Cost index).
- Assisting the FCM consultant in the Reporting of results.

My work on the Community Affordability Measure involved research of available literature, research of measures, meeting with Statistics Canada in Ottawa, and meeting with FCM's consultant from the Advocate Institute. I commenced working specifically on the Community Affordability Measure in

January, 1997. Prior to this I had been working with the technical team to identify indicators to include in the QOL Reporting System and their relevance.

Once again, the part of the problem I am addressing in this practicum is specifically the development and implementation of a measure of community affordability that can be tracked on a nationally consistent basis. This has been the primary focus of my work with the FCM technical team for the past couple of years.

IV. The Practicum Project: A Determination of Community Affordability

A. Part One: Design and Development of Community Affordability Measures

The purpose of this study was, to design and test a pilot instrument resulting in an index of community affordability for each of the sixteen Canadian municipalities participating in the Federation of Canadian Municipalities Quality of Life Reporting System. This study's overall research design included four parts. The first part consisted of developing and presenting a draft instrument or formula for the measurement of community affordability that could be utilized by municipalities. The second part included testing the feasibility of utilizing this instrument. In the third part necessary revisions were made which included the development and implementation of a local pricing exercise. In the fourth part the instrument was implemented for all participating municipalities, and the results were reported.

At the time of this study, there was some research being conducted in terms of income levels and changes in available income by the Canadian Council on Social Development. As well, Campaign 2000 was tracking child poverty across the country, with a view to eliminating it. However, there was not a lot of research that considered both costs and income simultaneously, particularly for the average Canadian, as most research focused primarily on poverty or low income groups.

Terry Hunsley, the FCM consultant, recommended utilizing a ratio of income to cost of living (income/cost) for a particular municipality as the measure of community

affordability. It is the combination of income and cost of living that contributes to the affordability of a community for its' residents. This general principle quickly gained the consensus of the group, as it was noted, that cost of living figures for urban communities can be misleading if the average incomes of the people living there are not taken into account, and vice versa. It was realized that either an increase in incomes or a relative decrease in costs could affect an increase in affordability. Additionally, the group had already agreed to construct indexes wherever possible. The QOL Reporting System was intended to monitor changes and an index provided a good mechanism from which to demonstrate change.

Also of significance were differences in income distribution and the need to demonstrate changes in affordability. It was agreed that the measure utilized for community affordability should demonstrate if lower income people were falling behind the general movement of the community in terms of affordability. The hypothesis was that changes to the federal funding structure would most significantly impact low income families. With these goals in mind, I set about, in consultation with the FCM consultant, to develop a measure that would be relevant to the participating municipalities and gain their acceptance.

In order to design this specific measure of community affordability, further research and specification were required for the two components, both income and cost of living. First consideration was given to what would be utilized for the income portion of the equation, as this was viewed as the more straightforward of the two.

First, it was important to identify an average income, something that would have widespread appeal and that most people could relate to. Second, it was imperative to distinguish between the average income and a modest or low income, in order to demonstrate if indeed lower income populations were falling behind the general population in terms of affordability. Initial thoughts, considered establishing measures of average income for the community broken down into several categories: overall community, the proportion of incomes under Statistics Canada's Low-Income Cut-Offs (LICO), average family income in the bottom 30% or 40%, average income of the elderly, women, one parent families and other groups of interest. Affordability could be tracked for a variety of populations to determine how each was being impacted. This could act to inform public policy debate.

Since information on incomes was readily available through Statistics Canada by way of taxfiler data, there were many possibilities in terms of what could be tracked and monitored consistently on an annual basis. However, when the corresponding costs were taken into consideration for each of these various population groupings, it became apparent that this task may not be so easily completed. In particular if a market basket approach to costs was used, each population grouping may require a different basket of goods and services, or at the very least reflect different consumption patterns.

Since it did not appear feasible to calculate the associated cost component for so many groupings, the groupings were narrowed down. Eventually, after reviewing literature and consulting with Terry Hunsley and Statistics Canada, three measures of income were considered for further testing: the median income of the overall community

(community referring to each specific municipality), the average income of the overall community and the median income of the population that falls below the median overall population. These measures were chosen based on a number of factors.

First, median incomes were seen as more valid measures than average incomes, as they were not subject to skewing based on extreme incomes. However, some individual team members expressed a preference for average income versus median income, based on what they felt would have the most public appeal. With this in mind, both median and average income, for the overall population were calculated in the test phase.

There were many dilemmas, however, in terms of what to utilize for a low or modest income measure. The goal was to utilize something understandable and something that might avoid some of the ongoing controversy associated with measures of poverty. Given the long standing dispute over what constitutes poverty and poverty lines, it seemed logical to avoid utilizing that terminology. Statistics Canada Low Income Cut Offs were not utilized, in part because of this, and their complexity. They include a number of lines based on family size and composition. Although Statistic Canada has consistently maintained that it does not regard the LICOs as poverty lines, most social policy groups in Canada do (National Council of Welfare, 1996). Some international studies have identified poverty as one-half of the median income. That is the half-way point between zero and the median for family income in each country. This presented an interesting option. This was easily explained, understandable in layman's

terms, and also considered in terms of potential future benefits, should there be a desire to utilize this measure internationally.

In terms of costs, it was initially assumed by the consultant that a measure would be calculated for the cost of a market basket of goods and services. These goods and services were to include the requirements for a minimum decent living standard, such as food, clothing shelter, public transportation, basic health, education and social service requirements. In the construction of a basket of goods and services, items from the basket utilized for calculating the Consumer Price Index were to be considered, as well as models utilized by social service agencies in setting welfare prices. This basket was to be referred to as the Basket of Basic Living Needs (BBLN). The Community Affordability measure would then be determined by the ratio of the median income to the cost of the BBLN, which could be converted to an index.

Given my background in the social services department and market basket approaches to setting welfare rates, I was familiar with many different models including Agricultural Canada's Nutritious Food Basket, Toronto Social Planning Council's basket, the Montreal Diet Dispensary, the Home Economists Budget Guides, as well as Christopher Sarlo's meager basket. Like poverty lines, market baskets range from real minimalist or absolute needs to more inclusive baskets taking into account the ability to participate more fully in society. In Manitoba, prior to the Provincial standardization of social assistance rates, the City of Winnipeg's Social Services Department relied on Agricultural Canada's nutritious food basket for the determination of food requirements. Based on the items included in the basket, the necessary pricing was completed to

determine adequate food rates for social assistance recipients. We relied on Toronto Social Planning Council's basket for the remainder of items including clothing, household items and personal needs.

Based on my knowledge, I felt strongly that Agriculture Canada's nutritious food basket was the best in determining food requirements since it was based on specific nutrient intake requirements of individuals by age and gender. As well, Agriculture Canada had previously priced their "nutritious food basket" consisting of 64 items in 18 cities across the country and since they were still conducting pricing in Winnipeg, I thought it was possible that this may be happening in other municipalities as well. I also felt that Toronto Social Planning Council's basket would be a good model for the remainder of items to be included in our basket, as it was more generous than most others. Knowing the amount of work and thought that goes into establishing a basket of goods and services, I favoured utilizing an existing basket, with some established credibility rather than developing a new basket model.

Given that these market basket approaches to determining a cost of a specific basket of goods and services are both age and gender sensitive, the next order of business was to select a representative family size and composition, or perhaps a few different family compositions. Again keeping in mind the amount of work required, I recommended utilizing at most two different family compositions. The first would be a family of four with two adults and two children, the same ages as utilized by the National Council of Welfare for comparing social assistance rates across the country each year. The second family composition could include an infant, as they have different

requirements and would be representative of younger families. The FCM consultant, not having expertise in defining a basket of goods and services, did not initially consider that these market basket approaches were dependant on family size and composition, and that this needed to be taken into account in terms of the corresponding income component of our measure.

The further I got into the detail design of our community affordability measure the more selective the measure became. I moved from a more general perspective, to a specific family size and composition. Also, we were getting into the territory of attempting to establish a national standard of living, defining what was required to live a decent life, by defining our own BBLN. This was fraught with problems and open to much scrutiny and debate. Additionally, the amount of work required to calculate our cost and income measures became increasingly more apparent. Having some knowledge about pricing, the need to utilize several stores and average prices I had some recognition of the amount of time and precision required for such an undertaking.

All of the above concerns caused me to re-examine our goals. Had we not simply wanted to first determine where we were at in terms of affordability, relative to each other, not to establish some new theoretical standard of living? There were already many groups who had worked hard at developing what constituted an acceptable standard of living, with no real concurrence in terms of which constituted the best measure. Had we not all stated that what was important was to be able to determine if our communities were getting more or less affordable, and if it was the same for the lower income population and the average income population? If this was the case, then what was key

to our success was consistency in terms of our basket of goods and services priced, both across municipalities and within municipalities from year to year. The consistency of the basket was more relevant than what made up the basket. The relevance would increase the more closely the basket could reflect actual consumer expenditure patterns (both for the average consumer and the low income group). It also had to be easy to explain and meet the criteria previously established by the team.

I shared my thoughts with FCM's consultant, and after further discussion it was decided to explore whether we could utilize Statistics Canada's data for the pricing of the Consumer Price Index (CPI) for our cost component. The items priced for the determination of the CPI are derived from Statistics Canada's Family Expenditure Survey which delineates average consumer spending. This pricing is done regularly and was seen as an excellent source to be utilized in determining community affordability. Statistics Canada's CPI calculates changes in cost of living monthly and yearly. If we could utilize their basket of items priced to determine actual costs for the same goods and services across the country, and then construct indexes of comparability, we could utilize their CPI data to keep our community affordability measure current. There appeared to be potential there, and FCM consultant, Terry Hunsley, met with Statistics Canada and arranged a second meeting in Ottawa, March 16, 1997 with representatives from Statistics Canada's Consumer Pricing Section, myself and the municipal representative from the support municipality of Ottawa-Carleton.

Our initial meeting with Statistics Canada representatives proved most valuable, not only were they interested in our project and interested in assisting, but they had expert

knowledge in terms of pricing and issues related to community affordability. We learned more about the calculations for the CPI, the FAMEX survey, taxfiler data and pricing they had done in the past. They did not however, gather data for CPI in all of our participating municipalities, which was problematic for us. We had some beginning discussions about the possibility of their expanding their pricing to include those municipalities participating in the FCM QOL Reporting System. They also shared with us some of the detailed considerations in terms of attempting our own pricing exercise across municipalities.

At the same time Statistics Canada learned all about what we were attempting, and they provided information as to how they could see themselves assisting. We also discussed some of the limitations that they faced and the limit of what they could provide us without financial compensation. During the meeting it was apparent that there seemed to be a good fit with Statistics Canada's CPI calculations and the FAMEX survey. They agreed to calculate our income data, the median income for all family income based on taxfiler data, the average income, and then the median income of those below the median income or the 25th percentile. In later discussions, they also agreed to reconfigure their FAMEX survey data to consider expenditure patterns of that particular group. In other words, Statistics Canada were willing to re-weight the items in the basket for CPI based on what we had referred to as the modest or low income population in order to determine the costs for the low income population. Statistics Canada staff were also interested in seeing the difference. They also advised that the average consumption patterns did not change significantly from year to year in terms of what we were looking at, and

suggested likewise the modest income consumption patterns may also not change that significantly from year to year.

After consultations among the FCM consultant, myself, the Ottawa-Carlton representative, and Statistics Canada representatives it was agreed that Statistics Canada would attempt to do the data manipulation for the calculation of the Community Affordability measures for two of the participating municipalities (Winnipeg and Ottawa-Carleton) in order to test for feasibility. In actuality, Statistics Canada ended up completing the calculations for all 11 Census Metropolitan Areas (CMA's) for which they collected data.

It was through consultation with Statistics Canada and FCM's consultant that the formula for our community affordability measure became more clearly defined. It had been determined early on that we wanted to utilize the ratio of income to costs, and look at determining an index, and after discussions with Statistics Canada, it was evident that a process similar to that utilized for calculating the CPI index could indeed be adopted.

Keeping these thoughts in mind, in consultation with FCM's consultant, and several phone calls to Statistics Canada, two proposed measures of Community Affordability were developed: CAM 1 and CAM 2. These measures were based on the relative affordability for each of the municipalities, in terms of the participating municipalities across Canada, for both an average income population and a lower income population group.

I. Purpose of the Community Affordability Measures

The purpose of the CAM is to measure the relative affordability of Canadian communities and changes in their relative affordability over time for both the community as a whole, and for what is referred to in this study as the 'modest income population'. For the purpose of this study, 'modest income population' refers to the population at the 25th percentile in terms of income. The CAM is an index of the ratio of the income of the residents to the cost of living within the municipality as compared to the average of all participating municipalities. This measure allows municipalities to determine where they stand on a national basis in relation to the quality of life their residents can afford. It does not measure communities against an ideal or theoretical standard, but against the standard established by the aggregated experience of all participating municipalities. It also enables municipalities to track trends in affordability within their community.

The CAM has two distinct dimensions. The first is a measure of how affordable the community is for the total population, using the median income of the total population in relation to the cost of living of the average consumer. This is CAM 1. The second dimension is the same measure, but applied specifically to the bottom half of the population of the income scale. For this measure, the median income of the modest income population or the 25th percentile is compared to the average cost of living for this group. The Cost of Living for the modest income population was derived by recalculating Statistic Canada's weights utilized for determining CPI based on the expenditure patterns specific to the modest income population group. These weights were then applied to our

basket of goods and services to obtain our cost of living for this group. Over time, the two measures will indicate if conditions for the general population are changing. They will also indicate if conditions for the upper and lower half of the population are changing in the same direction.

2. Calculating CAM 1 and CAM 2:

CAM 1 =

(Median Income City A) divided by (the average of Median Income All Cities) (Income Index)

OR

(Cost of Living City A) divided by (the average of Cost of Living All Participating Cities) (Cost Index)

CAM 2 =

Median Income of Modest Pop. City A divided by the average of Median Income of Modest Pop. All Cities

Cost of Living Modest Pop. City A divided by the average of Cost of Living Modest Pop. All Cities

The Cost of Living was to be calculated by Statistics Canada through ongoing local pricing research done for determining the CPI. This is currently completed in eleven CMAs. The actual costs are not released by Statistics Canada, but they do produce an index of the relationship of costs in each CMA to the average of all. The Cost of Living for the modest income population in each CMA was to be calculated by Statistics Canada deriving from the consumer expenditure survey, a profile of the consumption, or average "basket of goods" of the half of the population which falls on the lower half of the income scale, then applying the prices determined in the ongoing pricing research for each of the CMAs.

The income indexes were to be calculated using income percentile data from Statistics Canada. The 50^{th} percentile was used as the median family income for each municipality. These medians were then calculated as percentages of the Canadian average median, to form the index for CAM 1. The same process was to be carried out using the 25^{th} percentile, or median of the modest income population, for CAM 2. The income indexes were then calculated as a percent of the cost index to derive CAM 1 and CAM 2.

The process of development of these measures was a lengthy one and included, identifying definitions or determinations of what would be utilized for our cost of living, as well as how we would define average income, and low or modest income levels.

B. Test Phase

1. The Test Phase Process

A test run of the proposed measures was attempted in July, 1997, utilizing Statistics Canada's data for both cost and income, and Statistics Canada's calculation of our index. For the test phase, these measures were calculated on the Census Metropolitan Area (CMA) for the eleven CMAs which Statistics Canada monitors for its "spatial index"(comparing geographic areas) of the CPI (Consumer-Price Index). The intent was that should this prove successful, other participating municipalities would be included in a full implementation process. This was all that Statistics Canada could provide without extending their current capacity.

The purpose of the test phase was:

- To test the technical feasibility of computing the CAMs for participating municipalities.
- To determine approximate costs of computing the CAMs.
- To identify problems in the process of calculating the CAMs (to ultimately determine if it will be necessary for each participating municipality to carry out an annual pricing exercise to determining costs of a specified "market basket" of goods and services).

It was hoped that the test phase would demonstrate that Statistics Canada could meet our data requirements, thereby eliminating the need to carry out our own pricing exercise.

The feasibility analysis previously agreed upon by the technical team, as outlined in the previous chapter, was utilized to evaluate this.

The work required of Statistics Canada included the following:

- Calculating the costs for the 11 CMAs, and determining the technical or resource-related obstacles of calculating them for the other municipalities.
- Presenting the costs in the form of an index related to the average costs for the eleven CMAs currently monitored by Statistics Canada.
- Calculating a new set of costs for the 11 CMAs, but based on the spending patterns of families in the lower half of the income scale, and presenting these in a similar relational index.
- Calculating the average and median income for the general population in the 11 CMAs and converting them into a index relative to the average Canadian income.
- Calculating the average and median incomes for the modest income population and converting these into an index relative to the corresponding average Canadian income.
- Using the income index as the numerator and the cost of living index as the denominator, to calculate the resulting indexes as CAM 1 and CAM 2.

The base for calculating average cost of living, the denominator was the eleven CMAs. In terms of the income data, it was originally provided using three bases for the average: 1) the eleven CMA's; 2) the Big Three CMA's – Toronto, Montreal and

Vancouver; and, 3) all of Canada. The third base for income was chosen, so that other cities could be readily incorporated in the future. This option however was not available for the cost of living data.

The cost index, calculated by Statistics Canada, excluded their shelter component, as they did not yet have a method to control for differences and thus were not comfortable including this. For the test run, CMHC's rental survey for average rental costs of a two-bedroom apartment were to be added to the cost index.

It should be noted, that Statistics Canada carried out this work, valued at an estimated $12,000 to $14,000, free of charge, for the FCM QOL project.

2. Key Lessons from the Test Phase

The test phase resulted in various insights and key learnings. These were presented and discussed at a face to face meeting of the technical team in August 1997. The most significant realization was that it would be necessary to conduct our own local pricing exercise. The result of this was that I had to revise our plans to include both the design and implementation of a local pricing exercise in order to obtain our own cost of living figure.

Whereas initially it was felt that we could utilize Statistics Canada's data for the calculation of CAM 1 and CAM 2, our learnings proved otherwise. While there was no problem utilizing Statistic Canada's data for income, the numerator for the CAMs, there were problems associated with utilizing their data for our cost of living, (the denominator for the CAMs).

The first shortfall was that their data was not broken down to the municipal regions that we required in order to satisfy all participating municipalities. Statistics Canada only had complete data on seven of the sixteen participating municipalities, and the test run determined that it was cost prohibitive for them to obtain costs on the other municipalities. (They did not have information on Burnaby, Calgary, Saskatoon, Windsor, London, Hamilton-Wentworth, Peel, Waterloo and York.) As well, some of the participating municipalities were highly concerned with utilizing CMA boundaries versus city boundaries. They felt that one of the project's strengths was that it was based on municipal boundaries, since data is usually not available at that level. They also assumed that community affordability would be different in the areas surrounding the municipality, and therefore including them would skew the municipalities' affordability.

Secondly, Statistics Canada lacked housing data that could be utilized for the shelter portion of cost of living. Although they currently monitor shelter costs, they do not report on them because they do not have a good method to control for differences in housing quality. Statistics Canada indicated that they were working on a method to include a shelter component in their 'spatial index' of the CPI, but it was unknown when this might become available.

Based on this information, we had to make decisions regarding our cost component and how to determine it. As well, we had options to consider in terms of a shelter component. As for the cost component, I recommended and gained consensus that we would carry out our own pricing exercise, utilizing an existing model, possibly Agriculture Canada's Nutritious Food Basket in combination with Toronto Social

Planning Council's Model. Many municipalities, had some type of pricing done and representatives hoped that this might preclude having to conduct their own pricing. These alternate pricing formats however did not lend themselves to consistency or comparability across municipalities and were ruled out.

There was concern expressed about the amount of staff time required to conduct pricing locally in each municipality. This led me to commit to ensuring that the overall coordination, including calculations, would be done centrally and a maximum of five weeks of one staff person's time would be required per municipality to complete the pricing. This timeframe was based on my previous knowledge of pricing exercises conducted in Winnipeg. I also agreed to have a preliminary design for the pricing exercise out to everyone as soon as possible for pricing to occur in either May or June. It was imperative for pricing to occur at the same time in each municipality.

An outstanding methodological question that I grappled with, along with the FCM consultant, was whether or not two separate baskets were required, one for our total population (CAM 1) and another for our modest income population (CAM 2).

As for the shelter component, this posed a significant problem, as shelter represents the single largest consumer expenditure area and varies considerably from city to city. In the test run CAM 1 and CAM 2 were calculated with and without a shelter component, and demonstrated that there was significant movement in a municipality's affordability based on the addition of a shelter component. (Refer to appendix H for a comparison of test run CAMs with and without a shelter component and a listing of their rankings.) The proxy shelter component was weighted as a proportion of the resulting

cost index at .2907 for the general population and .3264 for the modest income population. These proportions were provided by Statistics Canada as the weighting of the missing shelter component. The shelter proxy utilized for the test run was CMHC's annual rent survey and we used average rent for a 2-bedroom apartment. There were three options to consider for the shelter component.

1) Not to include a shelter component, until Statistics Canada is able to supply this information. This means the existing index is based on solid methodology, rather than weakening it by utilizing a poor proxy for shelter.

2) Include a proxy for shelter based on CMHC's annual rental survey. This information, excludes housing costs, however rental costs are generally reflective of housing costs in municipalities. It is too significant of an expenditure to leave out.

3) Calculate CAM 1 and CAM 2, with and without shelter costs to allow users to determine which they want to utilize. This involves more calculations but is less vulnerable to criticism.

The group consensus was to go with the last option to calculate CAMs both with and without a proxy shelter. CMHC's Average Rent information was still somewhat problematic to use as they do not control for differences in quality nor is there strong evidence to suggest that a two-bedroom apartment is an appropriate proxy for shelter costs. However, this represented the best source of comparison shelter information currently available and the amount of time and cost associated with generating another alternative was not feasible.

Other significant observations from the test run included the following:

- Statistics Canada's calculations of the income component of the CAM posed no problems.

- Statistics Canada would be able to calculate CAMs for the other cities for additional costs approximately $ 2,000 to $25,000 per city depending on data they currently collect for that City. On some cities they have partial data, others no data.

- Median incomes appear to be a better measure, as they are not skewed by extremely high incomes. The average income for the total population in all instances was substantially higher than median incomes.

- The distance between the average and the median is a measure of the degree of inequality in the distribution of incomes. In instances of less income inequality the median and average incomes are closer. These inequalities were also reflected in the difference between CAM 1 and CAM 2. The larger the variance, the greater the inequality in income distribution.

- Vancouver and Toronto had the greatest distances between the two measures, and experienced a drop on the income index (and subsequently on CAM 1) when median income was utilized. Other municipalities improved their relative position given less income inequality. (Refer to appendix I for comparisons of average and median incomes for the general population and modest income population)

- There was not as much of a difference between average and median incomes for the modest income population group. This was more of a homogeneous group, not impacted by extreme incomes.

- Statistics Canada officials pointed out that the overall cost index does not change significantly between the general population and the modest income population and that the general changes in the CPI could be transposed in future years to update the cost index for the modest income population. This would avoid the cost of redoing the CPI for the modest income population each year. The method could then be reviewed every five years or so to ensure that this finding remains valid.
  (Refer to Appendix J for comparison of cost indexes for the general population and modest income population, including a proxy shelter.)

- The addition of a proxy shelter causes some of the higher income cities to fall in relative position of affordability because of the high rents, whereas cities with lower average rents rise in relative standing. For the most part, a municipality's income level determined its' relative affordability, with the exception of those with extremely high rents. In other words, shelter costs had a significant impact on affordability for those with extreme rents.

- The greatest variance between municipalities is in income versus costs. With the exception of shelter costs, municipalities were fairly comparable in terms of costs. However, there were significant differences in income levels across the country. (FCM Progress Report on Community Affordability Measure, August, 1997).

C. Part Three: Back to the Drawing Board: Design and Development of Local Pricing Exercise

The test phase resulted in a need to once again explore options in terms of a basket of goods and services to be utilized in conducting a local pricing exercise. Therefore a specific model, or combination of market baskets had to be identified. Typically there are two ways of arriving at standards or costs of living and sometimes the two are combined. First, goods and services to be included in a basket may be based on typical purchases made by sample groups of families, which serves as an indication of how the average families at specific incomes spend their money (e.g. Statistics Canada's CPI). Second, standards may be determined with the help of experts' judgments, whereas a group judgment is made about basic numbers of goods and services needed to maintain a family household (e.g. Agriculture Canada's Nutritious food basket, Budget Guides,

Acceptable Living Level). If we were to utilize one of the existing baskets that we were considering, (Agriculture Canada's Nutritious Food Basket, Toronto Social Planning Council, or Budget Guides) this would represent a move from an average expenditure to a judgement regarding basic needs. This led me to consider the possibility of utilizing a modification of Statistics Canada's basket utilized for the CPI in order to utilize expenditure patterns versus judgments.

Infometrica, an Ottawa based company well known for its economic research, had utilized a scaled down version of Statistics Canada's basket to ascertain price differentials between two different locations for determining salary adjustments. If they were comfortable utilizing a modified basket for that purpose, surely we could also construct a smaller basket from which to derive our cost index. In further looking at the details of utilizing Agriculture Canada's Nutritious Food in combination with Toronto Social Planning Councils' clothing and household, for different family compositions it included the pricing of some 506 items, which was not significantly less than Statistics Canada's 650 items. After much review, another meeting with Statistics Canada, Terry Hunsley and FCM's assistant, it was determined that a modification of Statistics Canada's basket utilized for pricing the CPI was the best option for our local pricing to determine our denominator. I set out to come up with a modified version for our use and guidelines for our pricing exercise. At the end of April, I forwarded information via email to the other participating municipalities in terms of what we would utilize for our pricing exercise as well as a survey to be completed in order to identify existing stores

across the country for utilization in the pricing exercise. (Refer to Appendix K for survey on stores).

The items that Statistics Canada price for the CPI are based on their Family Expenditure Survey. Their list of items is therefore representative of average consumers across Canada and does not attempt to identify a standard of basic living needs. I shared my rationale for utilizing Statistics Canada list of items:

- It avoided the problem of having to specify specific family compositions. In the other baskets pricing of food, and clothing is based on age and gender of children and is all inclusive to meet their basic needs.
- It was not based on a 'basic needs' determination but on an average expenditure survey.
- It had widespread credibility.
- It was not seen as more labour intensive and I could utilize much of Statistics Canada's methodology.
- It was consistent with our trial run and therefore we had a mechanism for comparison for validation.
- Should Statistics Canada's pricing become more tailored to our needs in the future, we could utilize their pricing rather than completing our own pricing exercise and maintain consistency.
- It was an indicator that met the technical teams established criteria.

1. Pricing Exercise Design

My reference for the pricing exercise was Statistics Canada's list of items priced for the determination of the Consumer Price Index (CPI). Statistics Canada's list consisted of commodities identified through their Family Expenditure Survey, which identified what the average family purchases. Statistics Canada's list of items, specifications and associated expenditure weights were utilized in defining our own basket or list of commodities and services. (Refer to Appendix L for list including weights). Statistics Canada also provided recalculated expenditure weights specific to the spending patterns of families in the lower income scale for the test run, based on the average of the eleven CMA's. Our modest income weights were re-established based on the same ratio of modest-to-average (for all participating municipalities), updated by the year over change (1996 – 1997) in the basic components. (Refer to Appendix M).

Statistics Canada's basket consists of over 650 items that fall under the following eight categories: Food, Shelter, Household Operations and Furnishings, Clothing and Footwear, Transportation, Health and Personal Care, Recreation, Education and Reading, Alcoholic Beverages and Tobacco Products. We utilized those same eight categories and associated expenditure weights for each category in calculating our basket. We selected items from Statistics Canada's list for six of the eight categories, selecting 161 items from a total of 520. We utilized a slightly different methodology for the Clothing and Shelter categories.

2. Selection Criteria for Items Priced

The selection criteria for priced items (excluding clothing and shelter) were as follows:

- Items that had individual weights assigned[2]
- Sample size (number of items selected) per group dependant on group weighting (sample size increased relative to group weight)
- Ease of comparability across municipalities[3]
- Commonality

3. Weighting Determinations

The weighting was determined as follows:

- Statistics Canada's expenditure weights for the eight large categories were utilized: Food, Shelter, Household Operations and Furnishings, Clothing and Footwear, Transportation, Health and Personal Care, Recreation, Education and Reading, Alcoholic Beverages and Tobacco Products.[4]
- Individual weights were utilized when specified
- Weights for items that were omitted were distributed evenly among the selected items for that group.

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[2] Statistics Canada's data, for the most part, did not provide individual weights for each specific item, rather groups of items had weights assigned which we divided equally among those items that made up a given group (ie. dairy products, beef and games would represent groupings having assigned weights and several items would be included in each grouping). Only select items had individual weights assigned.
[3] Items were omitted when it was not feasible to compare across municipalities.
[4] Our total weight equals 99.98, .02 less than Statistics Canada's total of 100 due to Statistics Canada's data being rounded off to two decimal points.

- When entire sub-groups were omitted due to problems associated with comparability, the weight was distributed evenly among the other sub-groups in a particular category.

4. Specifications

Specifications utilized were as follows:

Statistics Canada's specifications were the primary source for our list of items utilized, with the exception of Shelter and Clothing. Data provided by Statistics Canada, however, had sensitive information (ie. brand names and store names) deleted. Therefore we defined our own guidelines such as store brand names or largest shelf volume based on previous pricing experience and a preliminary survey of stores available in the participating municipalities. (Refer to Appendix K for survey form).

5. Pricing Instructions

Pricing Instructions included:

Specific instructions for store selection and in-store pricing were included in the pricing guide. (Refer to Appendix N for pricing guide). The pricing guide included specific instructions for each category, which addressed store selection and specific pricing guidelines. Pricing sheets described the item to be priced including a detailed description and specified quantity. Each item was to be priced at three different stores, as an average price was later calculated for each item. Applicable taxes were applied, based on tax information provided by Statistics Canada. (Refer to Appendix O for tax information provided by Statistics Canada). A suggested script or introduction was also

provided to municipalities, via email, and pricers were advised to alert store managers of their presence, prior to commencing pricing. The pricing guidelines were all-inclusive and were to be completed the same week in June by all municipalities and then returned to Winnipeg for calculations.

6. Methodology utilized for Shelter Costs

Statistics Canada did not have shelter information that could be utilized. A proxy figure for shelter was utilized based on the average cost of a two-bedroom apartment determined by CMHC's shelter survey.[5] Statistics Canada's shelter weights derived from their Family Expenditure Survey were utilized. (Detailed information on calculations are provided later under the heading of CAM calculations).

7. Methodology utilized for Clothing Costs

Given the difficulties in defining specifications for this category that would ensure comparability across the country, we chose a different methodology and handled pricing centrally. Without Statistic Canada's specifications and experienced pricers, there were too many difficulties selecting common design, models, sizes, fiber content and such.

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[5] CMHC, Average Rent of Privately Initiated Apartments in Structures of Three and Over (All Units) by Province, Ottawa.

Consultation with large department store chains determined that with the exception of designer clothing, there was standard national pricing. The regional differences in costs would be accounted for only by differences in provincial sales tax.

Given this, a set value of $500.00 was identified for adult clothing and children's clothing. There was a breakdown of amounts for specific articles. The appropriate provincial sales tax was then applied.[6]

The following three categories were selected from Statistics Canada's CPI basket: Shoes, Winter Jacket, Pants/T-Shirts/Underclothing for both children and adults.

Shoes	$100.00
Winter Jackets	$100.00
Pants/T-shirts	$300.00
	$500.00

The above allocations were applied to each category in all the municipalities including their respective tax rates in order to derive the final average price and weighted cost for each item in all municipalities.

8. Modifications to Pricing Guide:

After reviewing and verifying the pricing information received from all participating municipalities, minor modifications were made to the pricing guide in order to ensure that we were all pricing the same items. Some of the problematic items were

[6] Statistics Canada provided information on Provincial Sales Tax

were deleted and their weights distributed across other groupings. Other items were replaced with more specific, detailed items. This was the case in household and recreation categories. Some more complex items were re-priced centrally to ensure consistency (e.g. cars, telephone and university and college tuitions). (Refer to Appendix P for a detailed list of modifications, and a description of problems and resolutions by category).

The main challenge to the pricing exercise was to ensure that comparable items were being priced across the municipalities. Problems ranged from item availability, to lack of confidence in pricers ability to follow detailed instructions and record discrepancies accurately. This latter problem was a result of utilizing inexperienced pricers, with no consistent training.

9. Process and Formula for Deriving Cost Index

Step 1. Determination of the Total Weighted Cost per Municipality

- Determined the Average Cost for each item

(All municipalities were required to obtain three prices for each item).

- Applied Statistic Canada's associated weight to each item to obtain the Average Weighted Cost (= Average Cost x Weights)
- Summed the Average Weighted Costs for each item and obtained the average weighted costs for each category, ie. Food, Household, Clothing....

- Summed the Average Weighted Costs for each category to obtain the TOTAL AVERAGE WEIGHTED COST per municipality

This provided us with an overall cost per municipality, which was reflective of Statistics Canada's weightings based on patterns of consumer expenditure. Next we determined the average cost for all participating municipalities (Step 2), in order to calculate a cost index for each municipality, (Step 3). The cost index then represented how each municipality fared relative to the average of all participating municipalities. An index of 1.00 was used to represent the average cost of living. Anything over 1 demonstrating a higher than average cost of living, and less than 1.00 demonstrated a below average cost of living, as determined for participating municipalities. The cost index compares the cost of living in each of the municipalities to the average cost of living for all participating municipalities combined. In other words by calculating an index, each municipality's cost of living is demonstrated relative to each others. This is similar to Statistics Canada's CPI.

Step 2. Determination of the Average Total Cost of all Municipalities

$$\text{Average Total Cost (All Municipalities)} = \frac{\text{Sum of Total Average Weighted Costs (all Municipalities)}}{\text{Number of Participating Municipalities}}$$

Step 3. Determination of the Cost Index for all Municipalities

$$\text{City A Cost Index} = \frac{\text{Total Average Weighted Cost (for City A)}}{\text{Average Total Cost (All Municipalities)}}$$

The cost index depicts cost of living for each municipality relative to all others. This enables the tracking of trends in cost of living both within municipalities and across municipalities.

A decision was made to conduct a pricing exercise once every five years and to utilize CPI increases to adjust our cost index in between pricing exercises. This was based on several factors, including issues of sustainability as well as methodological considerations. Conducting a local pricing exercise is very labour intensive and utilizing CPI to adjust our cost index appeared to be an acceptable alternative. As noted earlier, the difference in cost between municipalities was not very significant in determining overall affordability, with the exception of shelter costs. This held true for both our test run and our own pricing exercise. It should be noted that we could obtain our proxy shelter annually from CMHC, to update our cost. The limited variance in costs across municipalities was a rather surprising finding.

For the most part, what impacted differences in affordability was the difference in incomes. Therefore, to produce a valid measure of affordability, it is more important to have good income data for the numerator than it is to have good cost data for the denominator. Additionally, given that our pricing was based on a modification of the CPI basket, it would be methodologically sound to adjust it annually by the CPI for the CMA's. A pricing exercise every five years would act to review the validity of this methodology.

D. Part Four: Implementation of Draft Measure & Reporting of Results

Once the pricing exercise was completed in June 1998 and calculations were completed to determine the Cost index (pre shelter component), the only other information required to complete CAM 1 and CAM 2 was CMHC's rental survey information, and income information. For this we relied on Statistics Canada's taxfiler data. Implementation then consisted of calculating the data to obtain CAM 1 and CAM 2, some preliminary analysis of the findings and reporting the results. I assumed responsibility for the design, implementation and calculations with regards to the local pricing exercise, and calculating the Cost indexes resulting from the pricing exercise. Part way through the process, I had an assistant for data entry and the use of the Excel software program to complete calculations for pricing. Cost indexes were calculated and

forwarded to Terry Hunsley, the FCM consultant. He obtained the income indexes from Statistics Canada and performed the remainder of the required calculations to determine CAM 1 and CAM 2, in consultation with myself.

1. CAM Calculations:

A Cost index was calculated from the pricing exercise. Statistic Canada's weights for the cost components were used to reflect the different proportions of income used to purchase different items by the whole population (CAM 1) and modest income population (CAM 2). The modest income population included all those families below the median family income (ie, the lower half of the income scale).

A Shelter index was calculated by taking as proxy the average rent for a two-bedroom apartment for each locale, from the CMHC rent survey. The average rents for each municipality were combined and averaged to determine an overall average rent for participating municipalities. The average rent for each municipality was then calculated as a percentage of the overall average (for all municipalities) to form the shelter index. The overall average rent for participating municipalities was $686.38. Statistics Canada's shelter weights (proportion of total income used to purchase shelter) were applied. For CAM 1 the shelter weight was .2675. This was based on Statistics Canada's weighting derived from their family expenditure survey. For CAM 2 the shelter weight was .3032. This was calculated based on data provided by Statistics Canada for 1996, adjusted by changes from 1996 – 1997, in relative weights of CPI

component indexes. (Refer to Appendix L & M for weightings of components provided by Statistics Canada). Statistics Canada provided weighting for the Whole Population (CAM 1), Modest Income (CAM 2) for the July 1997 test run and CAM 1 for 1998 implementation. I calculated the weights for CAM 2, based on the previous information

and proportions provided by Statistics Canada. The shelter index was then combined with the cost index using the Statistics Canada's weights for shelter, for CAM 1 (whole population) and CAM 2 (modest income calculation). The result of these calculations was two full-cost indexes, Cost 1 and Cost 2.

As noted earlier, the shelter component represents the single largest consumer expenditure area and varied considerably from city to city. In both the test run and our calculations there was significant movement in a municipality's affordability based on the addition of a shelter component. (Refer to appendix H for a comparison of test run CAM's with and without a shelter component, and a listing of their rankings).

The income indexes were calculated by drawing from Statistics Canada's income percentile data, the 50^{th} percentile, or median family income for each locale. These medians were then calculated as percentages of the Canadian average median, to form the income index for CAM 1. The same exercise was carried out using the 25^{th} percentile, or median of the modest income population for CAM 2. The income indexes were then calculated as a percent of the cost indexes to result in CAM 1 and CAM 2.

Step 1.

$$\text{City A Cost Index} = \frac{\text{Total Weighted Cost for City A (from pricing exercise)}}{\text{Average Total Weighted Cost (All Participating Municipalities)}}$$

Step 2.

$$\text{Shelter Index} = \frac{\text{Average Shelter Cost for City A x Shelter weight component}}{\text{Average weighted Shelter Cost for all participating municipalities}}$$

Step 3.

Cost index including Shelter = Cost index City A + Shelter Index City A

Step 4

$$\text{City A Income Index} = \frac{\text{Median income City A}}{\text{Median income all Canadian Cities}}$$

Step 5.

$$\text{CAM} = \frac{\text{INCOME INDEX}}{\text{COST INDEX}}$$

So,

$$\text{CAM 1} = \frac{\text{Median Income of Total Population}}{\text{Average Cost of Living (based on pricing exercise)}}$$

And

$$\text{CAM 2} = \frac{\text{Median Income of Modest Income Population Group}}{\text{Average Living Costs of Modest Income Population}}$$

In summary the cost of living was derived from the pricing exercise carried out in the sixteen participating municipalities whereby a cost was identified for a specific basket of goods and services. The basket of goods and services priced was a modification of the items Statistics Canada prices to determine the CPI, which is based on their Family Expenditure Survey. The costs for each municipality were then calculated as a percentage of the average total cost of all participating municipalities to arrive at a Cost index. The cost of living for the modest income population was derived by recalculating the weights for the items priced based on Statistics Canada deriving from their consumer expenditure survey a profile of the consumption patterns of half of the population which falls on the lower half of the income scale.

The median incomes were derived from income percentile data from Statistics Canada. The 50^{th} percentile was used as the median family income for each municipality. These medians were then calculated as percentages of the Canadian average median (obtained from Statistics Canada) to obtain an Income index. The same was done utilizing the 25^{th} percentile, or median of the modest income population. The Income indexes were then calculated as a percent of the Cost indexes to derive at CAM 1 and CAM 2.

In calculating indexes for both cost and income, each municipality is considered relative to the aggregated experience of all municipalities for both cost and income. The CAMs, which are derived from Income Index/ Cost Index, likewise measure relative affordability, that is how affordable a municipality is compared to the average of all participating municipalities. A CAM of 1.00 would present the average or norm,

anything higher than 1.00 is more affordable than the average; anything less than 1.00 is less affordable than the average. The higher the CAM the more affordable the municipality. Since we first calculate a cost index and an income index separately, one can determine whether it is the cost of living or the income in a particular municipality that determines affordability relative to other municipalities. The CAM's then allow for tracking changes in affordability within municipalities, as well as across municipalities.

2. Results

Community Affordability indexes CAM 1 and CAM 2, are shown in descending order (from most affordable to least affordable) in Figure 1 and Figure 2. Also illustrated are cost indexes (including the shelter component) and income indexes. Refer to Appendix Q, R and S respectively for, cost indexes prior to the addition of the shelter component, total average costs of basket of goods and services for each municipality, and total weighted average cost per municipality.

The CAMs portray the relative affordability among participating municipalities. The higher the value of the index the more affordable the community is for its residents. Affordability is impacted by both costs and income. There is a greater variance across municipalities in terms of income than costs, for both the total population and the modest income population. Therefore, the trend is that those cities with the highest median incomes are the most affordable. This does not hold true in all situations however, as this is impacted by below average costs in combination with average incomes. In other

words, if a municipality has average income but well below average costs, their overall affordability will be above average. For example, Windsor, Calgary, and Waterloo all with higher incomes than Regina, fall below Regina in terms of overall affordability, because Regina has lower than average costs.

Figure 1

Municipalities Listed in Order of Community Affordability

(CAM 1) – Total Population

	Municipalities	CAM 1	Cost	Income
1	Ottawa-Carlton, ON.	1.26	1.019	1.28
2	York, ON.	1.26	1.048	1.32
3	Regina, SK.	1.22	0.93	1.13
4	Windsor, ON.	1.20	1.016	1.22
5	Calgary, AB.	1.19	0.965	1.15
6	Waterloo, ON.	1.17	1.002	1.17
7	Edmonton, AB.	1.13	0.887	1.00
8	Saskatoon, SK.	1.13	0.91	1.03
9	Hamilton-Wentworth, ON.	1.1	0.981	1.1
10	Peel, ON.	1.10	1.07	1.18
11	Winnipeg, MB.	1.09	0.934	1.02
12	London, ON.	1.09	0.998	1.09
13	Halifax, NS.	1.06	0.989	1.05
14	Toronto, ON.	0.96	1.114	1.07
15	Burnaby, BC.	0.9	1.025	0.95
16	Vancouver	0.84	1.096	0.92

Figure 2

Municipalities Listed in Order of Community Affordability (CAM 2) - Modest Income Population

	Municipalities	CAM 2	Cost	Income
1	Regina, SK	1.26	0.912	1.15
2	Waterloo, ON	1.23	1.005	1.24
3	Ottawa-Carlton, ON	1.21	1.019	1.23
4	York, ON	1.19	1.054	1.25
5	Calgary, AB	1.19	0.964	1.15
6	**Winnipeg, MB**	**1.18**	**0.924**	**1.09**
7	Windsor, ON	1.18	1.01	1.19
8	Hamilton-Wentworth, ON	1.16	0.972	1.13
9	Saskatoon, SK	1.15	0.985	1.03
10	Edmonton, AB	1.13	0.885	1
11	London, ON	1.11	0.989	1.1
12	Halifax, NS	1.1	0.984	1.08
13	Peel, ON	1.04	1.093	1.14
14	Toronto, ON	0.87	1.144	0.99
15	Burnaby, BC	0.87	1.032	0.9
16	Vancouver, BC	0.76	1.112	0.84

The CAMs demonstrated that community affordability for the modest income population is not consistently a reflection of affordability for the total population. In other words, those communities, which are most affordable for what is referred to as the "total population", are not always the most affordable for the modest income population. As well, a significant decline from CAM 1 to CAM 2 suggests increased inequality in the community. Regina ranks fourth on the scale of affordability for the total population and jumps to first place in terms of modest income population, as Ottawa and York experience slight drops. Vancouver, Burnaby, and Toronto consistently rank as least affordable for both population groups. Toronto depicts higher than average costs and only slightly higher than average income. Vancouver and Burnaby depict higher than average costs however, in combination with lower than average incomes. Vancouver's and Burnaby's costs were significantly impacted by the addition of the shelter component, as would be expected. In terms of the modest income population, Toronto, Vancouver and Burnaby stand out as well below average. Additionally, Toronto and Vancouver both demonstrated the greatest decline between CAM 1 and CAM 2, suggesting an increased gap between their total population and the modest income population.

The CAMs demonstrate inequalities across municipalities as well as within municipalities. First the CAM's depict relative affordability across municipalities, and Figure 1 and 2 shows them in descending order of affordability for both population groups. The most affordable appear at the top of the page. Secondly, a negative variance

between CAM 1 and CAM 2 (a decrease in the index for CAM 2), for each municipality identifies a gap in terms of affordability between the total population and modest income population in a given municipality. Municipalities that experienced a decrease in relative affordability for the modest income population included Vancouver, Toronto, York, Peel, Ottawa, Burnaby and Windsor. The greatest decline was experienced in Toronto, Vancouver and York. Calgary and Edmonton remained the same in terms of relative affordability. Those demonstrating an increase in relative affordability for the modest income population included Winnipeg, Waterloo, Hamilton-Wentworth, Regina, Halifax, Saskatoon and London. Winnipeg, gained the most in terms of relative affordability, moving from an index of 1.09 for the total population to 1.18 for the modest income population. This means that there is less of a gap between the total population and modest income population in Winnipeg than in the other municipalities. Winnipeg moved from eleventh to sixth in terms of community affordability with respect to the modest income population.

a. Winnipeg Results

In terms of costs, Winnipeg was identified as having the fourth lowest costs, with only Edmonton, Saskatoon and Regina having lower costs for the total population and third lowest costs for the modest income population. Prior to adding the shelter component, Winnipeg was the second lowest in terms of costs, for both total and modest income population groups. Saskatoon and Regina have lower rental costs.

As for income, data provided by Statistics Canada regarding income tax filers identified Winnipeg as having the thirteenth lowest family income of the sixteen participating municipalities, for the total population. Winnipeg had only higher family income than Edmonton, Burnaby and Vancouver. When the ratio of income to costs was calculated to determine the Community Affordability Measure, Winnipeg's affordability was significantly impacted due to the low family income. In terms of the whole population (CAM 1), Winnipeg stands at number eleven with regards to affordability. For the modest income population (CAM 2), Winnipeg rises to number six in terms of affordability. For the modest income population group, Winnipeg's incomes are slightly higher than the average and costs are below average.

These indexes now form the baseline from which future change will be identified. The most significant piece of information will be if communities are becoming more or less affordable, and if movement is the same for both groups (CAM 1) and (CAM 2) in communities. Changes in the index will identify if the gap between the two groups is lessening or growing for each of the participating municipalities. The information tracked will also provide insight in terms of whether it is costs or incomes that is affecting community affordability for each municipality. Information to date suggests that the variance among municipalities and between CAM 1 and CAM 2 relates to income levels versus costs, with the exception of situations involving unusually high shelter costs. The relevance of these indexes will increase over time in identifying trends or movement in community affordability.

V. Process and Validation of the Community Affordability Measures

A. Process Issues

The factor that made the FCM Quality of Life Project unique and significant, its national coordination, also posed the greatest challenges in terms of process. This included issues related to group work, logistics and politics. In this Chapter, I will discuss process, both in terms of what worked well and what presented difficulties or limitations. First, however, I would like to acknowledge that I believe the production of the first FCM Quality of Life Report was quite an accomplishment. This marked the first time that municipalities across the country had come together to work on a joint project.

1. Process Strengths

a. Continued involvement of municipalities in the process

One of the real strengths of this project was that municipalities were actively involved in the design, development and testing of indicators throughout the project. I feel that this was absolutely critical to the success of this project, as it maintained

municipal commitment and made possible the provision of good local data. At the same time, this also ensured continued relevance for participating municipalities.

Two other key factors, which influenced ongoing municipal commitment, were funding and the perception of a common problem, or shared fear. First, participation in the project required municipalities to contribute $5,000 annually, as well as assign staffing resources. This contribution of staffing resources and finances enhanced municipal commitment, as municipalities had to be accountable for these expenditures. Second, as previously discussed, the changes in the structure of federal funding led municipalities to unite as they perceived a common problem. The anticipated outcome of these funding changes provided the momentum for municipalities to work together. For the most part, initial municipal representatives have remained involved in the project, which has been most beneficial in terms of continuity.

b. Staffing resources dedicated to the project

Having a consultant for overall coordination and to act as a champion for the project was of monumental importance. I am convinced that the first report would not have been completed, had there not been a specific individual to assume overall responsibility for it. Representatives spread out across the country faced with changing priorities, would not have been able to keep up the momentum and keep everyone on track without a central coordinator and champion. Additionally, with such a large group, it is not feasible to involve everyone in every decision. The FCM consultant, and administrative assistant however, were a vital link in communication. They provided

updates and worked jointly with the lead municipalities on indicator development. The consultant and the administrative assistant arranged conference calls, meetings and acted as mediators when consensus could not be reached on specific issues. Additionally, as a lead municipality, it was extremely important to have someone with extensive research experience validate our work, and be available to consult on issues of methodology.

As well, the consultant was able to remain focused on the project, while other team members' level of involvement on the project fluctuated based on shifting priorities of their other work requirements. Having a full-time consultant and a staffing resource from FCM assigned to this task, was essential to keeping this project on track. I have been involved in group projects that have failed to produce the intended results due to inadequate staffing resources.

c. Division of work

The early identification of lead and support municipalities for each indicator was an excellent strategy. This certainly helped move the project along, as work on individual indicators could occur simultaneously. As well it helped to lessen some of the difficulties associated with working with large groups, which I will discuss later. Further it assisted in gaining the commitment of municipalities for the project, as it resulted in their assuming responsibility for a particular piece of work.

d. Local flavour

Strong municipal involvement in the project, assisted in the community consultation processes, when such mechanisms were utilized for indicator development. Municipal representatives had both an awareness and established relationship with local organizations and community leaders.

e. Partners

Financial and in-kind contributions by partners were instrumental in the development of the Community Affordability Measures and the Quality of Employment Measures. Initially, support for the project was sought from both the federal and provincial governments. However, when this was not forthcoming for the overall project, sponsors or contributors were sought out for specific indicators. This latter strategy was successful and FCM, along with the technical team, continue to identify potential new sponsors.

In the first phase, Statistics Canada contributed approximately $20,000 in-kind, for the development of the CAM and the provision of additional data. Additionally, Human Resource Development Canada (HRDC) contributed financial support of approximately $50,000 toward the development of the employment indicator.

More recently, FCM has partnered with Environment Canada and Canada Mortgage and Housing (CMHC), to utilize their software package, Sustainable Community Indicators Program (SCIP). This software package is designed to assist communities' to track indicators of sustainability and to improve access to information

through the sharing of information on a specific site. FCM's Quality of Life Reporting System will act as a pilot project for Environment Canada in terms of utilizing this newly developed software package.

f. Networking

An added benefit of this project is the technical team. They have become an excellent resource for day-to-day work outside of this project, providing a network from which to obtain information and have frank discussions about emerging issues relevant to municipalities. Given that the technical team has now worked together for over three years, there is a significant level of mutual trust and respect among members.

2. Process Limitations and Difficulties

a. Group work & logistical issues

Although, one of the strengths of this project was the inclusion of municipal representatives from across the country, this presented many logistical problems in terms of how we worked together. As noted earlier, we utilized a combination of face to face meetings as a large group, face to face meetings of indicator teams, conference calls and emails. The majority of our communication as a large group was conducted by conference calls and emails. Working with a large group, was not ideal when trying to address complex issues. Although conference calls were regular, having twenty people

participating in a conference call, does not allow for much discussion on each issue. That was sometimes frustrating, as decisions were often not made or consensus not reached in a timely fashion. This resulted in a lengthier process but it did ensure that people remained committed and did not feel excluded.

This also led to my work on the development of the Community Affordability Measures primarily on my own. I resolved most issues through consultation with the FCM consultant, rather than bringing them to the larger group. Working with the consultant via phone calls and emails is also not as effective as a face-to-face meeting to address complex issues and review gathered information. The fact that I was situated in Winnipeg, and the consultant, Statistics Canada, and the support municipality were in Ottawa made good and regular communication difficult. Fortunately, I was able to meet in Ottawa on three separate occasions with the consultant and Statistics Canada over a number of days. The consultant also came to Winnipeg. Given, that I was from a small City department, with a set budget travel required seeking approval and additional funding.

Another difficulty with the process was that not all municipalities had equal access to assistance with research. While some municipalities have whole research departments and policy analysts, other smaller municipalities such as Winnipeg did not, particularly in the small Social Services Department where I worked. My job in the Social Services Department did not include research, and so this assignment was in addition to my normal workload. While this was not difficult initially, as I began to design and implement the pricing exercise across the sixteen municipalities, I required

additional assistance. As a result I was temporarily assigned an additional clerical resource. This had minor budget implications for the Social Services Department.

There were inconsistencies in terms of how much assistance lead municipalities received from the identified support municipality. This concept appears to have worked best when lead and support municipalities were in close geographical proximity. In those situations, regular meetings occurred and often times staff had organizations and people in common. For example, the support municipality I worked with on the Community Affordability Measure was Ottawa Carlton. I had very little contact with them outside of the larger team meetings. They experienced a continuous change of representatives and I did not aggressively pursue bringing the second and third representative up to date on the work completed. The updates occurred only at the regular group meetings.

As well, with any group, different individuals bring different levels of commitment and resources to the project. This was certainly evident in how much work I had to complete when dealing with the various municipalities in terms of coordinating the pricing exercise. This was further compounded by the size of the group and the fact that team members were spread out across the country.

b. Political issues

For the most part, politics did not play a huge role in the development stage of the FCM Quality of Life Reporting System. However, in the reporting of results, politics were responsible for the look of the final report.

Initially FCM and the technical team planned to report on the results of the QOL indicators, in a report card format, something very simple and catchy that would easily identify where municipalities were in terms of specific indicators as well as each other. This was one of the reasons indexes were favoured as they were seen as presenting ease and simplicity in the reporting and tracking of changes. FCM consultant and the technical team had referred to a report card all along. The report card was to report on how each of the municipalities was doing with regards to each of the ten indicators selected. The indicators would be looked at separately, and there would be no summary or composite index for overall performance. The team felt that it should be clear how municipalities fared relative to each of the individual indicators. A municipality might fare well on one indicator, whereas a different indicator may suggest a serious problem for that municipality.

Not only did the Big City Mayor's Caucus not want an overall ranking or summary index, but also they did not want a ranking by individual indicator either. The Big City Mayor's Caucus and the FCM's National Board of Directors advised that they did not want to see a ranking of municipalities of any kind. They wanted to demonstrate trends, for example, if particular indicators are declining across municipalities. The message was clear that they did not want to see another ranking like McLean's, the national magazine's annual ranking of Canadian Universities. Additionally, some of the technical committee members echoed this sentiment, as they were concerned about reprisals from their City Council if their municipality did not fare well in terms of

specific indicators. No one wants to be the bearer of bad news, and have to explain it to the local politicians, the public and the media.

After much dismay by some of the participants, the results were reported in such a way as to eliminate a quick determination of how municipalities fared on the ten indicators relative to each other. Data was presented in charts and tables, from east to west across the country consistently, not in order of highest to lowest, or most to least for indicators. For example, the Community Affordability index was not presented in order of most affordable to least affordable as it is in Chapter Four of this report. Also, given the number of different measures associated with each indicator, the report does not lend itself to quickly determining how municipalities compare to one another. The report was deliberately presented in such a way, as to preclude someone from easily comparing municipalities. A conscious effort has to be made to ascertain how each municipality does by indicator, compared to others. Several municipalities, including Winnipeg however, chose to reconfigure the data in order to share it with our respective councils. How Winnipeg fares in relation to other municipalities is a logical next question, once the data is presented. Although political leaders want this information, they did not want those results flogged in the press, particularly if the results are not favourable for their municipality. In other words, they want to utilize the data, as they perceive it to be most useful. Thus, the style of presentation in the FCM report, with lots of data and no quick illustrations, does not have the media or public appeal that a simpler report might have had.

There are potential dangers inherent in looking at a ranking by indicators including possible misinterpretation, or having some municipalities stand out in particular problem areas, (e.g. teen pregnancies, affordability issues). However, there is also a danger associated with not having findings stand out: that is that it becomes just another report that does not lead to action or further public debate. Some members of the technical team thought that since the first report was just baseline data, there was no point in drawing great attention to it until we had some changes or trends to report. The report's relevance will increase, once movement in certain facets of quality of life can be identified.

The plan is that future reports will emphasize changes in municipalities, whether a particular municipality is lessening or increasing in rates of crime, becoming more or less affordable, the gap between the rich and poor widening or narrowing, and whether there are trends across municipalities, versus emphasizing where each municipality is in relation to each other. It will be beneficial to explore municipalities moving in a positive direction, in an attempt to ascertain what factors can be attributed to the improvement, in order to provide insight for other municipalities. For summary information on the first QOL report, refer to Appendix G.

Other less significant political issues include the potential difficulties associated with changing political leadership and priorities. As with any process that is ongoing, situations change, which impact time and commitment to additional projects such as the FCM Quality of Life Reporting System. For example, in Winnipeg the initial champion of this project, the Commissioner of Protection and Community Services, is no

longer with the city as a result of an administrative re-organization and the elimination of the Board of Commissioners. Additionally, the Mayor who had been involved in the recommendation to create a reporting system is no longer the mayor. The Department that I had been working for no longer exists, as responsibility for the Social Assistance Program was transferred to the Province. I now work in a different Department and report to a different Director, and I could well have left the City to work for the Province. Had that been the case, I am not confident that Winnipeg's involvement in this project would have continued, given the complexity and time commitment involved.

Winnipeg's involvement has remained ongoing primarily because of continued commitment to the project, despite all these changes. The Director I now report to very much supports this initiative.

The complexity of the Community Affordability Measure and the extent of my role, including establishing a relationship with Statistics Canada, have also been instrumental to my continued involvement. Had it been an easier piece of work to pass on to someone else, or had the support municipality been actively involved, I would likely ceased to have been involved during the transfer of the City's Social Services Department to the Province. At that time I was heavily involved in the process of the transfer, assigned on a part time basis to Manitoba Family Services Department, and all other projects I was involved in were under scrutiny.

Winnipeg was not alone in this regard, as numerous municipalities were going through major re-organizations, and/or major policy changes were being introduced such

as "Work for Welfare" in Ontario. I raise this issue because changes in leadership and priorities are inevitable when dealing with governments, and often are problematic in terms of the sustainability of projects.

In retrospect I believe that the FCM underestimated the amount of time required from municipal representatives involved on the technical team. The current estimate is one month per year, which is to include reporting to their own Council. This may be inadvertent or strategic, in order to downplay the time commitment required by each municipality in order not to dissuade new municipalities from joining. This however, is something of a disservice to those involved, as they attempt to juggle this role in addition to already full jobs. With the addition of new municipalities, new indicators and a qualitative component, staff time will likely increase, which may become an issue for the sustainability of this project.

3. Technical Issues – Validation of the CAMs

Overall, I would conclude that the Community Affordability Measures, (CAM 1) and (CAM 2), meet the agreed upon criteria established for the purpose of indicator selection and evaluation. These criteria are: 1) technically feasible, 2) scientifically sound, 3) understandable, 4) relevant and 5) comparable across municipalities. The real drivers, are of course validity and reliability. Although they were identified as separate criteria for the purpose of this study and our evaluation, issues of validity and reliability

are intermingled throughout each of the specified criteria. I will review the CAMs in terms of each of the agreed upon criteria. First, however, I will provide definitions of each of the five criteria.

1) Technical feasibility

- to consider the credibility of the data source, the ease in which data can be obtained, as well as availability in terms of both timeliness and costs
- to consider issues of affordability and sustainability

2) Scientifically sound

- to consider validity, the extent to which a measure adequately reflects the meaning of the concept under consideration
- to consider reliability, whether repeated it would yield the same results

3) Understandable

- the simplicity and straightforwardness with which indicator values can be interpreted

4) Relevant

- the extent to which it contributes to quality of life, and its' importance to municipal representatives

5) Comparability

- it had to be comparable across all participating municipalities, measuring the same thing in each of the municipalities

a. Technical feasibility: Data source and process required to calculate the index

The data source for the CAMs consist of Statistics Canada data, CMHC's rental survey data, and the data derived from the local pricing exercise. Data for the numerator, or income data is easily obtained from Statistics Canada at a minimal cost. It is based on annual taxfiler data, which represents the most valid source of income data available. This can be provided consistently for all participating municipalities on an annual basis. This data source can easily be expanded to other municipalities if required.

The data source for the Shelter component included in the Cost index is, Canada Mortgage and Housing Corporation's (CMHC's), Average Rent of Privately Initiated Apartments in Structures of Three and Over (All Units), by Province. All sixteen of the participating municipalities were included in this survey and CMHC in Ottawa publishes these survey results annually, so there is no difficulty continuing to use this source of data. CMHC, is generally accepted as the most credible source of data for national rental information. A limitation of utilizing this data for our shelter component is that it does not include information pertaining to home ownership. This issue is discussed under issues of scientific validity. In terms of the calculations, the shelter proportion of the cost index was derived from the weighting of the shelter component provided by Statistics Canada, which we will continue to obtain on an annual basis.

As for the denominator of the equation for the CAM calculations, a local pricing exercise was utilized to arrive at our costs. As previously discussed it was initially hoped that we could utilize Statistics Canada's CPI data for our denominator however our test phase determined that this was not feasible. While they had complete data on a number of participating municipalities, they had only partial data on others and none on some of them. The estimated cost of up to $25,000 for municipalities where they currently had no data precluded this as an option. Additionally, consideration was given to potential problems with respect to the addition of new municipalities to the project and associated costs. Data availability, presented a challenge for the QOL project as a whole, in terms of obtaining data at a reasonable cost that was comparable across municipalities, valid and reliable. This impacted the selection of measures that were utilized for each of the indicators. The development of measures of Quality of Life was therefore an iterative process moving back and forth between the concept and the reality of data availability.

For the Community Affordability Measures, our solution was to design our own pricing exercise based on a modification of Statistics Canada's basket utilized to determine CPI. The plan was to conduct a local pricing exercise in each of the participating municipalities once every five years, and to adjust the cost index utilizing the annual CPI adjustment each year. This decision was made given the following factors: the labour intensiveness of conducting a pricing exercise, the variance across municipalities in terms of cost was not as significant as the variance in income, and given that the local pricing exercise was based on a modification of Statistics Canada's basket for the pricing of the CPI, it would appear methodologically sound to adjust our cost

index annually according to the CPI. The CPI adjustment is after all, the most commonly recognized measure to reflect cost of living adjustments utilized in legal contracts for wage increases, and funding agreements. The utilization of the CPI to adjust our cost index each year assists in making the CAM measure, workable in terms of staff and cost. The next pricing exercise will occur in 2002, which will act as a review of this process.

As with most studies relying on Statistics Canada as a data source, data is not current, and taxfiler data likewise is a year behind. With this in mind, our income is not based on the same year as our pricing, given the lag in data availability for taxfiler data.

It terms of sustainability, it is hoped that over time, Statistics Canada may expand their database to include all of our participating municipalities, in which case we would no longer be required to complete a local pricing exercise. This would certainly enhance the long term sustainability of this particular indicator. Municipal representation, ongoing funding commitments by municipalities, contributions of money and in kind from other organizations, as well as the utilization of a software package, should assist FCM with the ongoing sustainability of the overall project.

b. Scientific Validity

As stated in Gilmartin (1980), Handbook of Social Indicators, the most important criterion for an indicator is its validity, referring to the extent to which the measure reflects the concept it is intended to. The concept or phenomenon the CAMs are intended

to measure is how affordable a community is for its residents. Both for the average resident (utilizing the median income), and the modest income population (utilizing the median of the bottom half of the income scale or the 25th percentile). One of the strengths of the CAM's is that it takes into account both income and costs to determine affordability for residents. It is logical that either a change in one's income or in the cost of living in a particular municipality will impact how affordable that community is for its' residents. In other words, the CAMs have face validity, as the notion of a ratio of income to costs impacting affordability appears rational.

There is also evidence of construct and predictive validity, in the way the measure behaves. For example the affordability of municipalities with known high shelter costs is impacted and reflected in the CAMs. As demonstrated in Appendix G, when the shelter component is added to the cost index, those with higher rents become more costly and thus less affordable, which makes sense.

With respect to the CAMs or community affordability being an important component of Quality of Life, the process utilized for indicator selection assisted in validating this. Indicator selection involved the shared knowledge and experience of representatives from sixteen different municipalities in determining what impacted Quality of Life from a municipal perspective. Additionally, it is widely accepted in Quality of Life research, that one's financial state impacts quality of life.

In terms of CAM's numerator, or income data, provided by Statistics Canada, it has widespread credibility in terms of being scientifically valid. It is based on income tax filer data, which is probably the best source of national income data. Another alternative,

often utilized is self reported income available through census data. This however is not available on an annual basis.

In terms of our local pricing exercise, it was based on a modification of Statistics Canada's basket for determining the CPI, utilizing their specifications, and associated weights, based on their Family Expenditure Survey. The Family Expenditure Survey is based on a survey of consumption patterns, again considered a good source of information. The test run, utilizing Statistics Canada data and their calculations to derive the CAMs in July 1997, assisted in validating our results from our local pricing exercise, in terms of reliability. This will be discussed in greater detail under reliability.

There were some limitations in terms of calculating CAM 2, with respect to validity. As the same basket or items in the basket were utilized, only the weighting of items was changed to reflect the expenditure pattern of the modest income population as determined from Statistics Canada's FAMEX survey. An indication of the experience of modest income residents was obtained by reaggregating Statistic Canada's data, using the modest income expenditure patterns, to reweight the eight components that make up the basket of goods and services. Since existing price level comparison information was utilized however, the results may not reflect different shopping patterns in terms of specific items purchased for modest income families. For example, a new private vehicle is not affordable to the lower income groups, however it is one of the items included in the basket. Transportation costs for the modest income population group would likely be impacted by the cost of public transportation rather than a vehicle. However, a change in the items included in the basket for the modest income population would require

consideration of many methodological issues. Ideally having Statistics Canada delineate a separate basket of items based on a survey of modest income populations would be best, although this option was cost prohibitive.

What does help to offset this limitation is the fact that additional measures were utilized to complement the CAMs in addressing community affordability. Other measures include public transportation cost as a percentage of minimum wage and percentage of population receiving government transfer income by source (e.g. Old Age Security, Social Assistance). These measures further enhance the CAMs in understanding issues of community affordability and help to validate the CAMs.

Another potential limitation was that for our pricing exercise, in June 1998, we did not have Statistics Canada reweight their basket for the modest income. Instead we chose to recalculate the modest income weights based on Statistics Canada's previous reweighting, applying the same adjustment to the total population weights provided by Statistics Canada in 1998 to obtain our modest income population weights, keeping the same year over year change, or same proportion. The assumption was that the difference between total population income spending and modest income spending would remain fairly constant. The cost of having Statistics Canada reweight the components for our modest income population was $ 8500. The plan is to have them recalculate the weights every couple of years, to ensure this assumption is valid. (Refer to Appendix M for weights for test phase and weights utilized for the 1998 pricing exercise.)

As well, Statistics Canada pointed out after the test run, that the overall cost index did not change significantly between the general population and the modest income

population, and they suggested that general changes in the CPI could be transposed in future years to update the cost index for the modest income population, in order to avoid the cost of redoing the CPI for the modest income population each year. Again their suggestion was that this method could be reviewed every five years or so to ensure that this finding remained valid.

As previously noted a limitation in our cost index was the proxy shelter measure that was utilized. At this time, however, I am not aware of a better alternative existing, and time, cost and expertise preclude the creation of a consistent comparable measure of housing costs that would control for differences in quality. Statistics Canada, is apparently working on this and perhaps, in the future, we will be able to utilize their information for the shelter component. Until such time, the shelter component is limited to rental information provided by CMHC, the experts in terms of rental and housing information. This does not control for differences in quality however, or take into consideration the cost of houses. The assumption is that there is a correlation between rental and housing costs in municipalities. The proxy shelter may be more relevant to the modest income population, which is generally made up of a greater number of renters.

Overall I conclude that the CAMs have a fairly high level of validity, despite noted limitations. In order to add validity to the overall reporting system, the FCM technical team is planning to add a qualitative component, as highly recommended in current literature.

c. Reliability

Reliability refers to whether the CAMs would yield the same results, if they were calculated again. One of the factors impacting reliability is consistent methodology across municipalities. This was one of the most significant challenges, to come up with a measure of community affordability that ensured consistency across municipalities. We ultimately had to design our own pricing exercise.

In terms of other data utilized, Statistics Canada data was highly reliable in terms of consistency and comparability, which we relied on for identifying expenditure patterns as well as income data. As for CMHC data, the methodology is applied consistently across the country. However as previously noted, their survey does not claim to control for differences in quality.

As noted, the goal of the local pricing exercise was to ensure consistency and comparability across municipalities. Not only were great lengths taken to ensure it was applied consistently across the country, but the design of the pricing exercise, considered factors of reliability. For example, obtaining three prices from three different stores, in order to determine an average price enhanced the reliability of pricing. In other instances, whenever consistency with regards to specific items was questionable, alternate steps or modifications were taken in order to alleviate this. In future years, training of pricers is recommended and central pricing for items of a complex nature, in order to reduce time required for re-pricing, and to further ensure reliability.

As previously mentioned in the validity section, the test run, utilizing Statistics Canada data and their calculations to derive the CAM's in July 1997 assisted in validating the results from the local pricing exercise, in terms of reliability. The results were very close to Statistic Canada's test run, in that the ranking of municipalities remained consistent and the indexes themselves were not that varied. Some variance would be expected, given the addition of different municipalities, which impacts the denominator of the cost index.

Given the magnitude of work involved in conducting a pricing exercise, and that the results were similar to those obtained by Statistics Canada in the test run, it was determined that such a pricing exercise would only be completed once every five years. In each subsequent year Statistics Canada's C.P.I. would be applied to our Cost index in order to update it for the calculation of both CAM1 and CAM2. This was addressed under Data Source and Technical Feasibility, and may have implications for reliability.

Since, Statistics Canada provides a specific CPI index for only eleven of the sixteen participating CMA's, the annual adjustment does pose a methodological issue. Those municipalities where there is no CPI specific to them include Peel, Saskatoon, Windsor, York, and Hamilton-Wentworth. The proposed solution is to utilize actual CPI all items, for the eleven CMA's, and for the others to utilize the CMA in closest proximity of similar size.

Another challenge is the addition of new municipalities, and we have two new members Halton and Sudbury, Ontario. This represented a dilemma as the denominator for our Cost index, unlike our income index, was based on the average total weighted

cost of the sixteen participating municipalities. In order to be able to maintain consistency and track changes in affordability from year to year, the decision is to continue with the same base from year to year (the initial sixteen municipalities), despite the possible addition of new municipalities. This is not problematic in terms of income, as the denominator for our income was based on the Canadian Average Income, for this very reason. This alternative however, did not exist in terms of costs. Pricing exercises will be conducted in new municipalities joining.

The last pricing exercise was conducted in June, 1998, and for reasons of comparability we should schedule the next pricing exercise in June as well. If we keep to our plan a tentative time would be June, 2002.

d. Understandability and Relevance

Certainly, this measure is relevant to municipal governments, in terms of tracking the affordability of their community from year to year, as well as in relation to other municipalities. As already stated, the issue of affordability is relevant to the concept of Quality of Life. The ability to monitor the affordability in relation to the two different population groups is also significant, and should provide insight into whether or not current social policy and/ or programs are effective in reducing the inequality gap. Having information on both income and costs will help ascertain, what is causing a

change. Municipalities should be able to look to each other for solutions, if specific municipalities are experiencing gains in terms of affordability.

CAM's relevancy is heightened given, its' breadth of application. This measure could be utilized nationally, internationally and disaggregated, for different segments of the population, based on age, gender, income levels or other factors. This should assist in its' utilization for evaluating the intended consequences of social programs or policies attempting to impact distribution of income.

While each of the indicators has been designed to measure a specific aspect of quality of life, and may identify quantitative components related to programs and services, the Social Infrastructure indicator is seen as the tool to asses both the quantitative and qualitative effectiveness of programs and systems in addressing prevailing and emerging issues. Given the complexity of the Social Infrastructure measure, it is still in the developmental stage. It is hoped however, that this measure will get at the inter-relationship between the indicators through examining effectiveness of programs and services and accomplishments that are not easily quantified. Given issues of affordability and the lack of available outcome measures, the FCM technical team plans to rely on inputs and costs as well as outcomes, as part of the Social Infrastructure measure.

As for understandability, an index allows for ease in comparison and tracking changes. This measure however is somewhat complex, unless simply viewed as a ratio of costs to income. It is however, no more complex than the calculation of the CPI, which has gained great credibility. As long as it is made clear that a CAM of 1.00 equals the

standard or average aggregated experience of all participating municipalities, it is easy to understand how municipalities fare with respect to the average or each other. CAMs higher than 1.00, are higher than the average of all participating municipalities, CAMs lower than 1.00 are of course lower than the average.

As previously discussed, the usability and understandability of this measure was reduced given the way the data was presented in the formal technical report. This however, was based on political decisions, to limit the ease of comparability and ranking of municipalities.

e. Comparability

As for comparability, given the nature of the project, comparability across municipalities was one of the first considerations for all of the indicators. One of the strengths of the CAMs is that it is comparable across municipalities. Given that data sources utilized in the formula, are recognized national sources such as Statistics Canada's Family Expenditure Survey, and tax filer data, and CMHC's rental survey comparability is high. The cost component, based on a local pricing exercise may be the weakest part of the formula, and as discussed above our methodology was determined to enhance consistency of application and comparability.

Another criterion, which will be of significance, is the measure's responsiveness to change. This was not identified as one of our criteria for selection since the responsiveness of any proposed social indicator can only be assessed after it has been

measured over a period of year, in order that its' reaction to societal changes can be observed. To some extent, the difference noted between municipal measures of affordability suggests responsiveness. Additionally, the FCM consultant utilized this same formula to calculate community affordability for the participating municipalities utilizing Statistic Canada's 1992 data. This additional research completed by the FCM consultant suggests that the CAMs are indeed responsive to change. The consultant obtained 1992 CPI data and tax filer data from Statistics Canada and calculated CAM 1 and CAM 2, the results of which demonstrated a change in indexes over time. All but one municipality demonstrated a change in affordability between 1992 and 1996 for CAM 1 and all municipalities demonstrated a change in affordability for CAM 2. The change being that municipalities became less affordable, particularly for the modest income population group.

VI. Conclusions – Monitor, Report... Action Anyone?

A. Critique of Practicum

There were three broad learning goals for this practicum: 1) to explore the QOL concept, 2) to identify existing socioeconomic data that serve as QOL measures, and 3) to network with other municipal representatives, in order to increase my knowledge of what others were doing by way of tracking and reporting social issues at a local level. In conclusion, I feel that my work on the FCM QOL Reporting System, my review of the literature and my work on this practicum has afforded me an excellent learning opportunity from which to enhance my knowledge in the area of quality of life and social reporting. This project has also provided me with practical research experience and the establishment of working relationships across the country. These relationships have not only made this project possible, but have enhanced my day-to-day work in the City of Winnipeg's Community Services Department. I feel that my broad learning goals have been met.

I also delineated specific goals for this practicum, including: 1) to provide an overview of the FCM Quality of Life Reporting Project, 2) to identify a measure for one of the indicators, community affordability, that could be tracked on a nationally consistent basis, across municipalities, 3) to gain acceptance for this measure from the

participating municipalities, 4) to test this measure for technical feasibility, scientific soundness, understandability, relevance and comparability, 5) to implement this measure as part of the QOL project across participating municipalities, and 6) report on the results.

Overall I am pleased with the results of the practicum and feel that each of the goals have been met. As for the overview of the FCM Quality of Life Project, given the scope of that project, and the complexity of the community affordability measure (the central focus of this practicum), the overview did not include great detail. In actuality, each of the ten indicators, in themselves represent a small research project.

In relation to the development, testing, implementation and reporting on the Community Affordability Measures, I feel that each was successfully completed. Two measures of community affordability were developed (CAM 1 and CAM 2), both of which are technically feasible, and scientifically sound. A modification to the cost component is planned such that a pricing exercise will only be completed once every five years versus annually, for reasons of affordability and sustainability. As previously stated, the initial results have provided baseline quantitative data, from which future changes will be tracked and reported. These measures will only gain in significance, as they reflect movement in terms of affordability and demonstrate whether indeed movement is in the same direction for both the 'total population' and the 'modest income population'. These measures, as part of the FCM's Quality of Life Reporting System, will continue to be refined over time, and will be enhanced with the inclusion of a qualitative component.

Overall, despite the many difficulties associated with a national project of such scope and complexity I would conclude that the effort has been well worth it. Previous concern over municipalities' inability to monitor changes in quality of life have been alleviated. The FCM Quality of Life Reporting System, despite some of its limitations, has provided baseline data in terms of municipality's current condition with respect to Quality of Life in relation to eight broad indicators or domains. Additionally, a framework from which to monitor future changes in Quality of Life has been established. The end result being that municipalities are now in a position to monitor changes to their quality of life, as the FCM QOL Reporting System provides an effective tool with which to do so. Additionally, the breadth of application of this measure of community affordability is such that it can be utilized nationally, internationally or disaggregated for specific population groups by age, gender, income or a variety of factors. This further enhances its utility as a tool to evaluate the implications of social policies or programs aimed at impacting income distribution.

1. Immediate Insights:

Has this reporting system enabled municipalities to verify their hypothesis, that changes in the federal funding structure would have an adverse affect on modest income populations quality of life? Yes, but not to the degree that this will be possible in the future. Given the amount of time taken to establish this reporting mechanism, and that it

has primarily established baseline data it is somewhat premature to be utilized for this purpose. However, the baseline data that has been accumulated, and the plan for annual tracking will gain it that ability. For some of the measures, prior data has been obtained and there is clear evidence of increased income inequality as well as a growing concentration of related social problems in large urban communities. Problems include lack of affordable housing, and concentrations of poverty.

To summarize, the findings demonstrated that all communities have become less affordable for the half of the population below the median income. Between 1992 and 1996, the cost of living in all communities increased by 7.5% while median incomes increased by only 1%. The lower the income group, the larger the loss in incomes. People in the bottom ten percent lost 18% of their income on average. This is based on Statistic Canada's income data, included in the FCM QOL report. There was a significant decrease in income received from government transfers. In 1992, the municipalities participating in the FCM QOL project received 16.3 % of their incomes from government transfers, which dropped to 11.5% by 1996 (FCM QOL Technical Report, May, 1999). Some of this may be attributed to increased employment opportunities, however much of it was due to decreased coverage and reductions in benefit levels of social security programs such as Employment Insurance and Social Assistance.

One of the Housing Measures utilized was particularly indicative of changes in affordability for the modest income people. Between 1991 and 1996 the proportion of renters in Canada who pay more than 30% of their income on shelter, increased by

27.6%. In 12 of the QOL municipalities, more than 40% of renters pay more than 30% of their income for shelter. Homelessness is becoming a growing concern across large urban centres, as shelters are full and more and more people are forced to turn to the streets.

These findings are further substantiated by other research carried out. The 1996 Poverty Profile completed by the National Council of Welfare states, "the total incomes of the poorest 20 percent of Canadians had dropped dramatically because of a combination of lower earnings and cuts to cash transfers from governments" (National Council of Welfare, 1996, p.1). They also advised that by 1996, the poverty rate was up to 17.6 percent, and that child poverty had reached a 17 year peak, despite a period of so called prosperity.

Research conducted by the Canadian Council of Social Development, in developing their Personal Security Index, further supports FCM's findings. In their report they make note of growing levels of household debt, an increased poverty gap, a significant reduction in number of unemployed who qualify for benefits as well as the scaled down benefits. This is also reflective of subjective data they obtained via survey, as two thirds of working Canadians suggested that they did not feel income security programs would be adequate to sustain them and their families should they find themselves unemployed

Our current situation, speaks to the need to continue to track and report on conditions of Quality of Life in our communities. The hope is that consistent, credible reporting will eventually lead to action.

B. Future Direction for Quality of Life Research – Where do we go from here?

This study acts, to further emphasize the general lack of national data collection in terms of social indicators. Statistics Canada remains the best source of national reporting, through its census data, although themselves and others have repeatedly identified the limitations of their database. Their database has many gaps, in terms of geographic areas, relevant indicators of social well-being, and timeliness (much of their data is only available once every five years). Although this is certainly not a new recognition, the FCM QOL project marks the first coordinated action to attempt to address this problem, by developing a standard mechanism of reporting on selected social indicators. The fact that municipal government rather than the federal government initiated this project however is quite interesting, for as I began by quoting Hazel Henderson, "we measure what we treasure". Generally, the federal government, assumes responsibility for such national reporting, for example Unemployment rates, Gross Domestic Product, the Consumer Price Index. The broader implication of this reporting system is that it might help spur the federal government to take action in terms of social reporting, in order to exert some control over it. Their involvement would greatly assist toward the sustainability of such social reporting.

Municipal governments are hopeful that information with regards to quality of life issues on a national basis will assist them in securing a voice in social policy debate.

The provision of this information is viewed as the first step to getting specific issues on the political agenda. At the very least, this information will assist local government in local planning and enhance networking between municipalities. Additionally, municipalities may utilize these same national indicators at a community level. Numerous activities are occurring at a community level now, by neighbourhoods or other such groupings, perhaps a next step could be to adopt some of these same indicators to move toward a more common base locally. Quality of Life measurement, or community affordability is a way to self-knowledge, self-diagnosis and ultimately self-help for communities or municipalities.

The Federation of Canadian Municipalities, as part of the QOL project, have requested that Statistics Canada expand their data base and collection of data. There needs to be a strong message to the federal government that more routinized data collection is required in order to inform future decision making. Movements like Healthy Cities, and Sustainable Development are assisting in this message and are seeing some results on an international level.

A review of the literature suggested some common themes in terms of identifying imperatives for the future in QOL research. One such theme was the need for a central site for information sharing, consistency in terms of indicator utilization, and the overriding imperative for more and better data. Organizations such as Canada Mortgage and Housing Corporation, Environment Canada, the International Institute of Sustainable Development (IISD), Canadian Council on Social Development (CCSD), Redefining Progress, Sustainable Seattle and the Federation of Canadian Municipalities have

expressed this theme. Many of these organizations are in the midst of addressing some of this through interactive websites, regular publications, internationally suggested principles to guide indicator selection, and most recently a software package (Sustainable Community Indicators Program) to maintain a central database relative to community projects and government information regarding Canadian communities.

The need for continuity was also stressed. While there have been many projects starting up, there is still a shortage of ongoing work to look at the long-term implications and trends. Jacksonville represents one of the earlier community indicators projects that are still tracking similar indicators and identifying trends. There is also Oregon Benchmarks and Pierce Country Benchmarks. These last two attempt to utilize a summary index, which makes it more difficult for the public, who do not have access to further information to examine trends in detail. Sherwood (1996), pointed out the difficulties with attempting to standardize subjective and objective indicators and suggested that this is why there are few instances where the same set of indicators have been used for the same city in two time periods, or where two cities have utilized the same indicators. He goes on to advise that it is this lack of continuity that has limited the utility of these indicators as a public policy tool to establish trends and comparison. This speaks to where the future should take us. A goal of the FCM QOL project is to provide consistent tracking and reporting. However, the FCM project has struggled with the lack of standardized record keeping and varying terminology across municipalities. This has limited what could be reported on in a consistent manner.

In order to address this problem, it is imperative that the federal government assume a role in ensuring standard reporting of certain information and central data collection. Without this, projects either become too reliant on tracking what is already in existence, or they become short lived, with no sustainability, and they have difficulty gaining credibility.

One of the more thought provoking projects recently undertaken, apart from the FCM's QOL Reporting System, was that of Hal Gerein (1998). Gerein (1998) developed an instrument to derive an index of community wellness for each of the communities in the North West Territories. Whereas a summary index is generally not proposed, the methodology of Gerein (1998) was quite rigorous and included public consultation for the validation of indicators selected and weighting utilized. The index identifies those communities below a certain threshold as being in crisis, those above in transition, and those above an identified normative level as in balance. What was particularly interesting was that the researcher identified certain standards based on national averages and ranges, taking into account community size and location.

The sustainable development movement has made strides in identifying national standards in terms of water and air quality. Perhaps if national reporting of standard social indicators can occur, over time a next step may be to develop standards, or benchmarks on a national level.

In conclusion, I suspect that work at a local level will continue to grow, and move down to the neighbourhood level. The work will require new and better data sources that can be useful at this level. As these local initiatives continue to grow, I anticipate a

greater recognition of the need for more urban comparisons across cities, provinces and countries, which in turn will require more standard measures in terms of social indicators. Projects like the FCM QOL Reporting System, hopefully will assist in the recognition of this need and assist in advocating the federal government to play a more active role. With improved technology and communication, hopefully there will be an increase in standard social indicators, nationally and internationally, which can then be utilized to advocate for improved quality of life for all. In the meantime, the FCM QOL system will continue to monitor, report and advocate for appropriate action.

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Appendix A – PARTICIPATING MUNICIPALITIES

City of Burnaby, British Columbia

City of Calgary, Alberta

City of Edmonton, Alberta

Halifax Regional Municipality, Nova Scotia

Regional Municipality of Hamilton-Wentworth, Ontario

The Corporation of the City of London, Ontario

Regional Municipality of Ottawa-Carleton, Ontario

Peel Regional Municipality, Ontario

City of Regina, Saskatchewan

City of Saskatoon, Saskatchewan

New City of Toronto, Ontario

City of Vancouver, British Columbia

Waterloo Regional Municipality, Ontario

City of Windsor, Ontario

City of Winnipeg, Manitoba

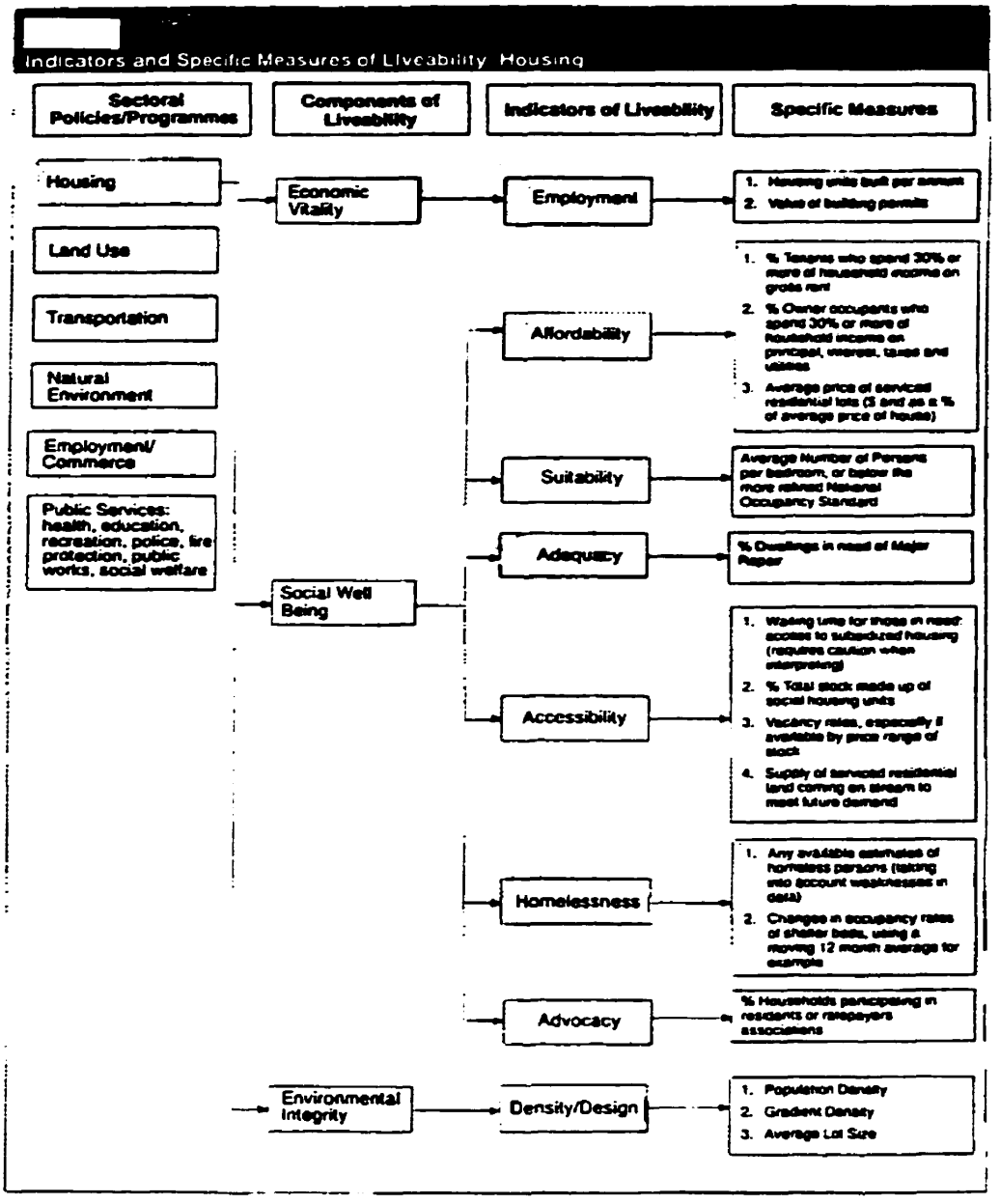
York Regional Municipality, Ontario

Appendix B – Illustration of Quality of Life Template: Indicators and Measures

Population Resources	Community Affordability	Quality of Employment	Quality of Housing	Community Stress	Health of Community	Community Safety	Community Participation
Population age groups	CAM1	Employment and unemployment rates	Median income compared with median house cost	% lone-parent families	Infant mortality	Young offender charges per 100,000 residents	Voter turnout
Population growth	CAM2	Permanent, temporary and self-employment as a % of population	Rental affordability: % renters paying 30% or more of income for rent	% of families that are low-income	Low birth weight babies	Violent crimes per 100,000 residents	Charitable donations
Multi-culturalism immigrant and visible minority populations	Patterns of change in family incomes	Families receiving Employment Insurance or Social Assistance as % of all taxfilers	Median rental as % of median income	Teen births per 1,000 teen women	Premature mortality	Property crimes per 100,000 residents	United Way contributions per resident
Migration: internal and external	Public transportation: cost as % of minimum wage	Median hourly wages by gender and age	Substandard dwellings: % of houses needing major repair	Suicide rates per 100,000 residents	Hospital discharges	Fear to walk in neighbourhood*	Daily newspaper circulation
Labour force replacement ratios	Government transfer income by source	Long-term unemployment	Residential property tax revenues per resident	Homelessness*; children in care*; crisis calls*	Work hours lost due to illness or disability	Injuries and poisonings per 100,000 residents	Recycling, kg per resident, per year
Education levels		Employment income as % of all income	Real estate sales per resident	Personal and business bankruptcies			
Literacy							

*NOTE: Reliable data for these indicators is not yet available

Appendix C: COMLE A Community Oriented Model of the Lived Environment (Utilizing Housing as an example)



Appendix D – BELLAGIO PRINCIPLES

Overview

These principles deal with four aspects of assessing progress toward sustainable development. *Principle* 1 deals with the starting point of any assessment-establishing a vision of sustainable development and clear goals that provide a practical definition of that vision in terms that are meaningful for the decision-making unit in question. *Principles* 2 through 5 deal with the content of any assessment and the need to merge a sense of the overall system with a practical focus on current priority issues. *Principles* 6 through 8 deal with key issues of the process of assessment, while *Principles* 9 and 19 deal with the necessity for establishing a continuing capacity for assessment.

PRINCIPLES

1. **Guiding Vision and Goals**

   Assessment of progress toward sustainable development should be guided by a clear vision of sustainable development and goals that define that vision.

2. **Holistic Perspective**

   Assessment of progress toward sustainable development should:

   - Include review of the whole system as well as its parts.
   - Consider the well-being of social, ecological, and economic sub-systems, their state as well as the direction and rate of change of that state, of their component parts, and the interaction between parts.
   - Consider both positive and negative consequences of human activity, in a way that reflects the costs and benefits for human and ecological systems, in monetary and non-monetary terms.

3. **Essential Elements**

   Assessment of progress toward sustainable development should:

- Consider equity and disparity within the current population and between present and future generations, dealing with such concerns as resource use, over-consumption and poverty, human rights, and access to services, as appropriate.
- Consider economic development and other, non-market activities that contribute to human/social well-being

4. Adequate Scope

Assessment of progress toward sustainable development should:

- Adopt a time horizon long enough to capture both human and ecosystem time scales thus responding to needs of future generations as well as those current to short term decision-making.
- Define the space of study large enough to include not only local but also long distance impacts on people and ecosystems.
- Build on historic and current conditions to anticipate future conditions – where we want to go, where we could go.

5. Practical Focus

Assessment of progress toward sustainable development should be based on:

- An explicit set of categories or an organizing framework that links vision and goals to indicators and assessment criteria.
- A limited number of key issues for analysis.
- A limited number of indicators or indicator combinations to provide a clearer signal of progress.
- Standardizing measurement wherever possible to permit comparison.
- Comparing indicator values to targets, reference values, ranges, thresholds, or direction of trends, as appropriate.

6. Openness

Assessment of progress toward sustainable development should:

- Make the methods and data that are used accessible to all.
- Make explicit all judgments, assumptions, and uncertainties in data and interpretations.

7. **Effective Communication**

Assessment of progress toward sustainable development should:

- Be designed to address the needs of the audience and set of users.
- Draw from indicators and other tools that are stimulating and serve to engage decision-makers.
- Aim, from the outset, for simplicity in structure and use of clear and plain language.

8. **Broad Participation**

Assessment of progress toward sustainable development should:

- Obtain broad representation of key grass-roots, professional, technical and social groups; including youth, women, and indigenous people-to ensure recognition of diverse and changing values.
- Ensure the participation of decision-makers to secure a firm link to adopted policies and resulting action.

9. **Ongoing Assessment**

Assessment of progress toward sustainable development should:

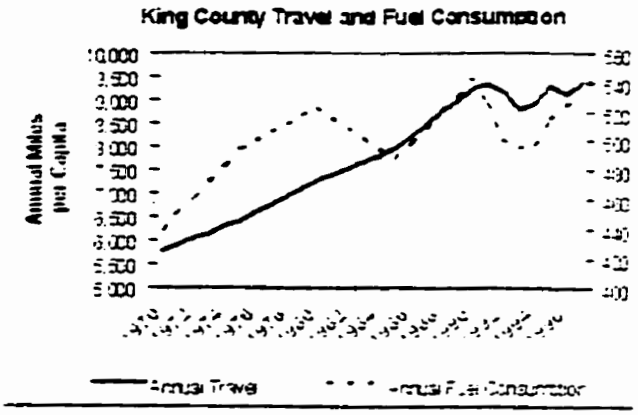
- Develop a capacity for repeated measurement to determine trends.
- Be iterative, adaptive, and responsive to change and uncertainty because systems are complex and change frequently.
- Adjust goals, frameworks, and indicators as new insights are gained.
- Promote development of collective learning and feedback to decision-making.

Bellagio Principles – Source: Tyler et al. (1997) Community Indicators Handbook

Vehicle Miles and Fuel Consumption

↓ Sustainability Index

Fuel consumption per capita and vehicle miles traveled per capita have both increased by [illegible]% over the last 4 years.



Description

The more we drive, the further we move away from sustainability. An increase in the number of miles traveled by King County drivers reflects growing dependence upon non-renewable natural resources, an increased amount of time allocated to a stressful activity, and a declining ability to work, live and participate in a neighborhood or community. Gasoline-fueled vehicle use creates air and water pollution as well as traffic congestion. Roads take up valuable land, reduce wildlife habitat and deprive the human community of open space. Most of us live in dwellings where a small child cannot go more than a few yards from the front door without a potential brush with death. A decrease in vehicle miles traveled would reflect reduced travel distances, more walking and biking, and wider use of public transportation and carpools.

Definition

The Washington State Department of Transportation calculates data on miles traveled per capita using the Department's High Performance Monitoring System and estimates annual fuel consumption based on revenues from motor fuel taxes. The King County Department of Transportation supplied metro ridership data.

Interpretation

Vehicle miles traveled (VMT) per capita have steadily increased over the last two decades, rising from 5,300 miles per year in 1970 to 7,300 miles in 1980 and to 9,200 miles in 1990. The methodology to calculate VMT changed in 1992, making it difficult to compare prior data. From 1993 to 1997, per capita VMT rose by 615 miles per year (7%).

Fuel consumption per capita has risen more slowly over the last two decades, rising from 440 gallons per capita in 1970 to 520 gallons in 1980 and to 530 gallons in 1997, with two periods of reduced fuel consumption in the early 1980s and 1990s. Over the last 4 years per capita consumption has increased by 33 gallons per year (7%). In addition, Metro bus ridership has tapered off since the early 1980s, falling from an all time high of 52 annual rides per capita in 1980 to 47 in 1996.

Evaluation

Recent trends, with the notable exception of the 1996 passage of a referendum funding an expanded rapid transit system serving Metropolitan Seattle and surrounding three counties, indicate a continued dependence on car travel. In the last few years, fuel consumption has risen more rapidly than vehicle miles traveled, perhaps due to t notable increase in sport u vehicle use. This indicate local fuel efficiency, other known as miles per gallon diminishing. In the long r major changes in land use vehicle technology, employment patterns, fuel efficiency, and the quality accessibility of public transportation will be necessary to achieve sustainability.

Linkages

Vehicle use and gasoline consumption are linked to excessive use of nonrene resources, pollution, loss open space and wildlife habitat, decreased social h as a result of stress and pollution, and a declining of community. Specificall gasoline consumption contributes to increased greenhouse gas productio global warming. Many of can be improved by switc transportation modes tow mass transit, walking and bicycling, as well as integrating commerce and residence in neighborhoo and business districts. Als increasing the efficiency cars by 10 MPG could red U.S. CO_2 emissions by 2 A stable population woul reduce sprawl and discour vehicle use.

Voter Participation

↑ Sustainability trend

More residents are voting, but participation levels are still fairly low - with only one-fifth of eligible adults voting in the last primary election

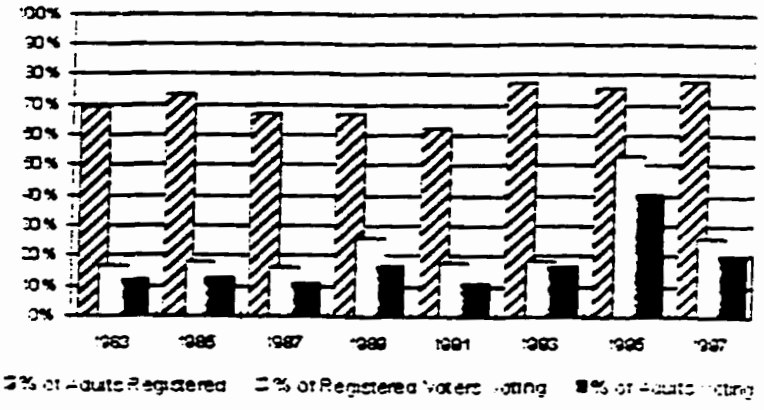
Description

In a democratic society, the level of voter turnout reflects the commitment that people have to the political system and the extent to which all segments of society participate in key decision-making. It is also a measure of citizen confidence in social and political institutions. Decreasing voter turnout can signal that people feel disempowered and believe their votes won't make a difference, or that the government system is organized to discourage civic participation.

Definition

Primary elections are used for this indicator because they shape the choices for the final election. Primaries also provide an opportunity for protest and dissenting movements to enter the political arena. Data from odd-year elections are used since even-year elections exhibit erratic voting patterns (reflecting the presence or absence of a significant statewide race), and because the key to active democracy is involvement in local government elections, which in Washington State take place in odd years. The King County Elections Office provided the voting and registration data.[1]

Off-Year Primary Voting in Seattle



Interpretation

Primary voter turnout in odd years has oscillated from a high of 30% in 1977, to a low of 11% in 1989 and 1991, followed by a record high of 40% in 1995. Voter interest in two controversial referenda for public financing of a downtown park and a baseball stadium contributed to the high turnout in 1995. Still, voter turnout has been slowly improving in recent primaries. After turnouts near 20% in the 1970s, the five primary elections between 1981 and 1989 averaged only 13% of eligible residents. With the four odd-year elections between 1991 and 1997, turnout increased to an average of 22% of eligible adults. In the 1997 primary election, 20% of eligible adults voted.

The percentage of eligible adults registered to vote has also grown-78% in 1997 as compared to 69% in 1983. The addition of more than 130,000 registrations in 1992 provided the most significant increase in voter registration.

Evaluation

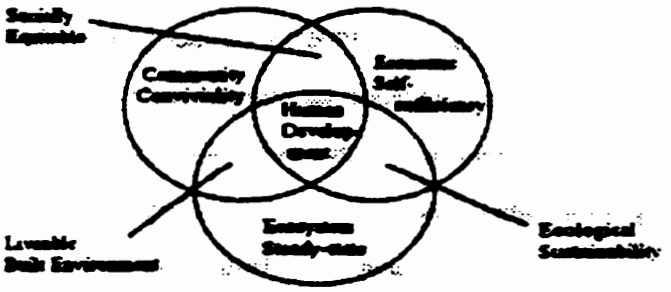
More residents are voting, but participation levels are still fairly low-with only one-fifth of eligible adults voting in the last primary election. This means a significant proportion of the population is being left out of the democratic process, which raises concern about our ability to govern ourselves and make the kinds of difficult decisions needed to create a sustainable society. Increasing active citizenship should be a high priority.

Linkages

Voter involvement is linked to poverty levels and the health of the social environment. Closely allied indicators include: youth and citizen community service, adult literacy, quality of life, income distribution, work required for basic needs, ecological health and population. Crime, social alienation, and other social problems are probably associated with decreasing civic participation.

[1] Bob Bruce, King County Office of Elections, private communication, November 1997

Appendix F: Conceptual Model Portraying the Central Focus of Human Development



Source: Gerein, H. (1998), pg. 41. Figure adapted from Hancock, T. 1996, pg. 20

Appendix G – Key Findings of FCM 1999 Report as it pertains to Winnipeg

KEY FINDINGS SUMMARIZED:

Canadian urban communities reflect both positive and negative experience in the nineties. Common trends across participating municipalities suggest that;

- # Income, education and employment standards are higher for participating municipalities than the Canadian or provincial averages.
- # Canadian metropolitan areas are undergoing a dramatic transformation to a vibrant multi-cultural society.
- # The participating municipalities have larger ranges of income inequality and higher incidence of poverty than the Canadian and provincial averages.
- # The poor are getting poorer.
- # Housing is a serious concern in urban communities with serious affordability problems.
- # Youth unemployment continues to be problematic and low wages, low family incomes and increasing incidence of lone parent families are evident.

WINNIPEG'S PERFORMANCE:

For the most part, based on 1996 data Winnipeg was fairly typical of the Canadian average, and other municipalities with a few exceptions. For example:

- # Winnipeg had a higher than average proportion of its population over the age of 65.
- # Winnipeg experienced a significantly lower population growth between 1991-1996.
- # Winnipeg's employment rate was significantly higher than the Canadian average, and the unemployment rate was below the Canadian average across all age categories.
- # Winnipeg exceeded the Canadian average in terms of permanent employment and was lower than the Canadian average in terms of temporary and self-employed.
- # Winnipeg had the highest proportion of its population reporting some form of Government transfer as income. (highest proportion receiving provincial tax credits versus other gov=t transfers, reflective of Manitoba's more generous Provincial tax credit program).
- # In terms of housing, although Winnipeg's housing situation was positive in terms

housing.

- Winnipeg's teen fertility rate was high in comparison, however demonstrated improvement between 1994-1996.

POPULATION RESOURCE MEASURES

- In 1996, 13.7% of Winnipeg's population was age 65 and older.
- This represents the third highest figure behind Hamilton-Wentworth and Windsor.
- Greater than the Canadian average of 12.2%.

Population Resources Measures
Table 1.1 Percentage of Population Age Group 65 and Over

Canada	Peel Regional	York Regional	Calgary	Halifax Regional	Waterloo Regional	Edmonton	Ottawa-Carleton Regional	Saskatoon	Regina	London	Vancouver	Burnaby	Toronto	[illegible]	Hamilton-Wentworth Regional	Windsor
12.2	7.2	8.3	8.9	10.3	10.8	10.9	11.1	11.5	12.0	12.4	12.9	13.3	13.4	13.7	14.2	14.6

Ranked Lowest to Highest

- Between 1991 – 1996, Winnipeg experienced a population growth of only .5% , second lowest figure behind only Edmonton, 5.2% below the Canadian average. Population growth varied significantly across municipalities, from minus .1% to 17.3%, between 1991 – 1996.

Population Resources Measures
Tables 1.2a & 1.2b Percentage of Population Growth 1991 to 1996

Canada	Edmonton	[illegible]	Regina	Windsor	Hamilton-Wentworth Regional	Halifax Regional	Saskatoon	London	Toronto	Ottawa-Carleton Regional	Waterloo Regional	Calgary	Vancouver	Burnaby	Peel Regional	York Regional
5.7	-0.1	[illegible]	0.7	3.3	3.6	3.7	4.1	4.5	4.8	6.3	7.3	8.1	8.9	12.8	16.3	17.3

Ranked Lowest to Highest

- Internal migration (defined as a percentage of those moving from a different municipality within Canada) Winnipeg was 8% below the Canadian average.

Population Resources Measures
Tables 1.2a & 1.2b Percentage of Internal Migration

Canada	Toronto	Vancouver	Burnaby	Windsor	Peel Regional	Edmonton	[redacted]	Calgary	York Regional	Ottawa-Carleton Regional	Hamilton-Wentworth Regional	London	Waterloo Regional	Regina	Saskatoon	Halifax Regional
82.8	48.3	52.2	58.3	67.4	69.4	74.0	[redacted]	74.6	75.1	78.3	80.3	80.7	83.5	87.7	88.3	90.2

Ranked Lowest to Highest

- External migration (defined as a percentage of the population moving into a municipality from a different country), Winnipeg was 8% higher than the Canadian average.

Population Resources Measures
Tables 1.2a & 1.2b Percentage of External Migration

Canada	Halifax Regional	Saskatoon	Regina	Waterloo Regional	London	Hamilton-Wentworth Regional	Ottawa-Carleton Regional	York Regional	Calgary	[redacted]	Edmonton	Peel Regional	Windsor	Burnaby	Vancouver	Toronto
17.2	9.8	11.7	12.3	16.5	19.3	19.7	21.7	24.9	25.4	[redacted]	26.0	30.6	32.6	41.7	47.8	51.7

Ranked Lowest to Highest

- In 1996. visible minorities comprised 11.9% of Winnipeg's population which fell close to the Canadian average but significantly lower than such municipalities as Vancouver (44.9), Burnaby (39.4) and Toronto (37.5).

Population Resources Measures
Table 1.2a & 1.2b Percentage of Visible Minorities

Canada	Regina	Saskatoon	Halifax Regional	Waterloo Regional	London	Hamilton-Wentworth Regional	[redacted]	Windsor	Calgary	Edmonton	Ottawa-Carleton Regional	York Regional	Peel Regional	Toronto	Burnaby	Vancouver
11.2	5.7	5.8	6.6	8.5	8.9	9.0	[redacted]	12.7	16.5	18.1	20.5	24.2	31.2	37.0	39.4	44.8

Ranked Lowest to Highest

- Similarly the percentage of Foreign born residents within Winnipeg followed the Canadian average (17.4%) but was significantly lower than municipalities such as Toronto (47.6%), Vancouver (44.9%), Burnaby (41.8%) and Peel (40%).

Population Resources Measures
Table 1.2a & 1.2b Percentage of Foreign Born Residents

Canada	Halifax Regional	Saskatoon	Regina	Ottawa-Carleton Regional	[redacted]	London	Waterloo Regional	Calgary	Edmonton	Windsor	Hamilton-Wentworth Regional	York Regional	Peel Regional	Burnaby	Vancouver	Toronto
17.4	7.0	8.2	8.3	15.0	[redacted]	20.9	21.1	21.7	22.5	23.7	24.6	35.8	40.0	41.8	44.9	47.6

Ranked Lowest to Highest

- Winnipeg ranked near and above the Canadian average in various levels of education attainment in its general population.

  2% higher than Canadian average with a university degree

  21.6% of population holding University degrees, compared to Toronto's (30.2%) and Vancouver's (34.9%) for the 25 to 34 yr. Age range

Population Resources Measures
Education University with Bachelor's Degree or Higher (For ages 25 – 34 years)
Table 1.3a & 1.3b

Canada	Hamilton-Wentworth Regional	Waterloo Regional	Edmonton	Windsor	Regina	Peel Regional	[redacted]	Saskatoon	London	Calgary	Burnaby	Halifax Regional	York Regional	Toronto	Ottawa-Carleton Regional	Vancouver
19.8	**18.9**	20.3	20.4	20.5	20.6	21.2	**21.6**	22.8	23.7	24.2	24.9	**26.3**	29.5	30.2	34.7	**34.9**

- In terms of literacy, Winnipeg ranked fairly high when it came to education levels less than Grade 9

Table 1.3a & 1.3b
Education level less than Grade 9

Canada	Calgary	Ottawa-Carleton Regional	Halifax Regional	London	Burnaby	Regina	Saskatoon	Edmonton	Peel Regional	York Regional	[redacted]	Vancouver	Waterloo Regional	Windsor	Hamilton-Wentworth Regional	Toronto
12.1	**5.5**	6.1	6.7	6.9	7.7	7.9	7.9	7.9	8.0	8.8	**9.1**	**10.4**	10.7	10.7	11.5	**12.2**

Community Affordability Measures

CAM RESULTS ARE ILLUSTRATED & DISCUSSED IN CHAPTER FOUR OF THIS REPORT

The purpose of the CAM is to measure the relative affordability of Canadian communities and changes in their relative affordability over time, for both the commuity as a whole (CAM1) and for the modest income population (CAM2). The CAM establishes a ratio of income levels to the cost of living.

- In the case of Winnipeg, while costs were identified as very low through the pricing exercise, family income was also identified as low from tax filer data. Therefore, when the ratio of income to costs was calculated Winnipeg's affordability (CAM) declined significantly in relation to the other municipalities with higher incomes.

- In looking at Winnipeg's whole population (CAM1), Winnipeg was more affordable than Halifax, Toronto, Burnaby, and Vancouver, the same as London, and less affordable than the other ten participating municipalities.

- In looking at Winnipeg's modest income population (CAM 2) only 31% or five of the participating municipalities (Regina, Waterloo, Ottawa-Carleton, York, Calgary) were more affordable than Winnipeg.

- Community Affordability is also considered in terms of percentage of income received from Government Transfers

- The trend was for Government Transfer sources to decline between 1992 –1996 (less people eligible for Social Assistance and Employment Insurance)

- In 1996, Winnipeg had 91.2% of its population reporting some form of Government transfer as part of their income (EI, OAS, CTB, GST, Soc. Asst, Wkr's. Comp., Ta Credits). A disproportionally large percentage of the population (69.4%) received provincial refundable tax credits. This may be attributed to Manitoba's more generous provincial tax credit program.

-

Community Affordability Measures
Table 2.5c & 2.5d Government Transfers (% Reporting)

Canada	Calgary	Ottawa-Carleton Regional	York Regional	Peel Regional	Toronto	Vancouver	Waterloo Regional	Halifax Regional	Windsor	Burnaby	Regina	Edmonton	London	Hamilton-Wentworth Regional	Saskatoon	[redacted]
86.6	78.8	79.0	79.6	81.2	82.4	82.7	83.3	84.1	84.1	84.2	84.5	84.8	85.0	85.9	86.4	91.2

Ranked Lowest to Highest

QUALITY OF EMPLOYMENT MEASURES

- For the rates of employment (% of individuals who are in the labour force). Winnipeg was 7.8% higher than the Canadian average (ages 15-24) and 5.3% higher (for ages 15-39).

Quality of Employment Measures
Table 3.1 Employment Rate (15 –24 years)

Canada	Burnaby	Toronto	Vancouver	Peel Regional	London	Halifax Regional	Edmonton	York Regional	Ottawa-Carleton Regional	Saskatoon	Hamilton-Wentworth Regional	Regina	Waterloo Regional	Windsor	Winnipeg	Calgary
51.6	43.6	44.8	47.3	51.9	53.7	54.0	54.1	54.2	54.8	54.9	55.4	57.4	59.4	59.4	59.4	60.9

Ranked Lowest to Highest

Quality of Employment Measures
Table 3.1 Employment Rate (15 –39 years)

Canada	Toronto	Burnaby	Ottawa-Carleton Regional	Saskatoon	amilton-Wentworth Regional	Vancouver	London	Windsor	Halifax Regional	York Regional	Edmonton	Peel Regional	Regina	Winnipeg	Waterloo Regional	Calgary
67.9	66.2	68.0	68.1	68.2	68.6	68.6	68.8	69.4	69.5	70.2	71.1	72.2	72.8	73.2	73.5	75.9

Ranked Lowest to Highest

Quality of Employment Measures
Table 3.1 Employment Rate (40+ years)

Canada	Windsor	Toronto	Burnaby	Hamilton-Wentworth Regional	[redacted]	Vancouver	London	Halifax Regional	Edmonton	Ottawa-Carleton Regional	Saskatoon	Regina	Waterloo Regional	Calgary	Peel Regional	York Regional
49.9	45.3	46.5	48.2	49.1	[redacted]	50.2	51.2	52.6	52.9	53.3	53.4	53.8	56.3	58.8	60.8	63.9

Ranked Lowest to Highest

- In 1996, Winnipeg's unemployment rate was below the Canadian average across all age categories.

Quality of Employment Measures
Table 3.1 Unemployment Rates (15 –24 years)

Canada	Windsor	Ottawa-Carleton Regional	York Regional	Hamilton-Wentworth Regional	Calgary	Saskatoon	Regina	Halifax Regional	[redacted]	Vancouver	Toronto	London	Edmonton	Waterloo Regional	Peel Regional	Burnaby
16.1	11.2	11.3	12.1	12.6	12.9	13.7	13.9	13.9	[redacted]	14.1	14.6	15.1	15.1	15.6	17.4	17.5

Ranked Lowest to Highest

Quality of Employment Measures
Table 3.1 Unemployment Rates (15 - 39 years)

Canada	Calgary	Regina	Vancouver	York Regional	Halifax Regional	[redacted]	Edmonton	Waterloo Regional	Ottawa-Carleton Regional	Peel Regional	Saskatoon	Windsor	Hamilton-Wentworth Regional	Burnaby	London	Toronto
11.4	8.0	8.4	9.4	9.4	9.4	[redacted]	9.6	9.7	9.8	10.0	10.3	10.3	10.5	10.6	10.8	11.4

Ranked Lowest to Highest

Quality of Employment Measures
Table 3.1 Unemployment Rates (40+ years)

Canada	Regina	York Regional	Hamilton-Wentworth Regional	Saskatoon	Waterloo Regional	Ottawa-Carleton Regional	Burnaby	Calgary	London	[redacted]	Halifax Regional	Windsor	Edmonton	Vancouver	Peel Regional	Toronto
7.5	3.9	4.5	4.8	5.8	5.8	5.9	6.1	6.3	6.5	[redacted]	7.3	7.7	8.2	8.3	8.3	8.5

Ranked Lowest to Highest

- Statistics on Employment Insurance between 1992-96 showed Winnipeg following the national trend in a decrease in the number of claimants.

- In 1997, permanent employment (defined as employment stretching longer than 6 months), Winnipeg ranked higher than the Canadian average in every age category.

Quality of Employment Measures
Table 3.2a (Permanent Employees 15 – 39 years)

Canada	Saskatoon	York Regional	London	Vancouver	Burnaby	Halifax Regional	Ottawa-Carleton Regional	Edmonton	Calgary	Toronto	Regina	[illegible]	Hamilton-Wentworth Regional	Waterloo Regional	Peel Regional	Windsor
75.0	72.8	74.3	75.6	75.7	76.5	77.2	77.3	77.6	78.1	78.1	79.1	79.4	81.2	81.2	82.6	87.8

Ranked Lowest to Highest

- For employees defined as temporary or self-employed, Winnipeg had a rate lower than the Canadian average within its workforce.

Quality of Employment Measures
Table 3.2a (Self-Employed 15 – 39 years)

Canada	Windsor	[illegible]	Regina	Peel Regional	Halifax Regional	Burnaby	Waterloo Regional	Toronto	Ottawa-Carleton Regional	Hamilton-Wentworth Regional	Saskatoon	Calgary	London	Edmonton	Vancouver	York Regional
12.8	5.6	8.5	8.5	8.7	9.7	10.7	11.0	11.1	11.1	11.5	12.1	12.4	12.5	12.7	15.0	16.1

Ranked Lowest to Highest

- Between 1996-97, Winnipeg had a significant decline in the number of its long term unemployed with the exception of males over 40.

Quality of Employment Measures
Table 3.5a & 3.5b Long Term Unemployment (Both Sexes; 15 – 24 years)

Canada	Burnaby	Calgary	Hamilton-Wentworth Regional	Saskatoon	Regina	Toronto	[redacted]	York Regional	Ottawa-Carleton Regional	Edmonton	Vancouver	London	Windsor	Halifax Regional	Waterloo Regional	Peel Regional
12.5	0.0	6.9	7.2	7.4	7.4	8.3	[redacted]	8.8	9.9	9.9	11.3	12.0	12.4	13.5	14.5	14.9

Ranked Lowest to Highest
*Note: Statistics Canada defines long-term unemployment as unemployment for more than 6 months.

Quality of Employment Measures
Table 3.5a & 3.5b Long Term Unemployment (Both Sexes; 15 - 39 years)

Canada	Calgary	Regina	Saskatoon	Edmonton	[redacted]	Hamilton-Wentworth Regional	Windsor	Ottawa-Carleton Regional	Burnaby	Vancouver	Waterloo Regional	Toronto	London	Peel Regional	Halifax Regional	York Regional
20.5	9.9	13.3	13.5	13.8	[redacted]	15.4	17.0	17.6	19.5	20.1	20.1	20.5	20.7	21.9	23.3	28.2

Ranked Lowest to Highest
*Note: Statistics Canada defines long-term unemployment as unemployment for more than 6 months

Quality of Employment Measures
Table 3.5a & 3.5b Long Term Unemployment (Both Sexes; 40+ years)

Canada	Calgary	Edmonton	Hamilton-Wentworth Regional	[redacted]	Halifax Regional	Waterloo Regional	Vancouver	Toronto	Regina	Windsor	York Regional	Ottawa-Carleton Regional	Saskatoon	London	Peel Regional	Burnaby
34.0	20.8	29.2	30.6	[redacted]	33.3	33.6	34.	34.5	34.6	34.7	38.7	40.1	42.4	43.4	43.9	44.2

Ranked Lowest to Highest
*Note: Statistics Canada defines long-term unemployment as unemployment for more than 6 months

- In 1996, the number of 2 parent families (5.7%), lone individuals (12.2%) and single parents (35.5%) on social assistance was consistently lower than the Canadian average.

Quality of Employment Measures
Table 3.3a & 3.3b Percentage of 2 Parent Families on Social Assistance (1996)

Canada	York Regional	Peel Regional	Halifax Regional	[illegible]	Calgary	Regina	Saskatoon	Waterloo Regional	Windsor	Burnaby	Toronto	Vancouver	Edmonton	Hamilton-Wentworth Regional	Ottawa-Carleton Regional	London
7.8	3.2	5.0	5.3	5.5	6.1	6.7	6.9	7.4	7.5	7.5	7.7	8.3	9.2	9.3	9.3	9.4

Ranked Lowest to Highest

Quality of Employment Measures
Table 3.3a & 3.3b Percentage of Single Parents on Social Assistance (1996)

Canada	Calgary	York Regional	Peel Regional	[illegible]	Edmonton	Burnaby	Toronto	Vancouver	Regina	Halifax Regional	Saskatoon	Windsor	Ottawa-Carleton Regional	Waterloo Regional	London	Hamilton-Wentworth Regional
39.9	26.6	26.9	31.5	35.5	37.2	37.5	38.4	38.7	39.3	42.6	43.5	44.6	45.2	45.5	49.5	50.7

Ranked Lowest to Highest

- In 1997, Winnipeg's median hourly income was less than the Canadian average regardless of gender or age and ranked as one of the lowest among municipalities.

Quality of Employment Measures
Table 3.3 Median Hourly Wage for Both Sexes, Age 15 – 39, 1997 Stats

Canada	Saskatoon	Halifax Regional	[illegible]	Edmonton	Regina	Calgary	Windsor	Waterloo Regional	London	Toronto	York Regional	Ottawa-Carleton Regional	Peel Regional	Vancouver	Hamilton-Wentworth Regional	Burnaby
11.6	10.0	10.2	11.0	11.5	12.0	12.0	12.0	12.0	12.5	13.0	13.0	13.3	13.5	13.8	14.0	15.0

Ranked Lowest to Highest

COMMUNITY HEALTH MEASURES

- In 1996, Winnipeg recorded the third highest teen fertility rate behind only Saskatoon and Regina and was significantly higher than the Canadian average of 22.1 (per 1,000). However, the actual rate fell by nearly 5 (per 1,000) between 1994 and 1996. York had the lowest rate at 5.8.

Community Stress Measures
Table 5.3 Teen Fertility Rate 1,000 Women Aged 15 –19 (1996)

Canada	York Regional	Vancouver	Peel Regional	Ottawa-Carleton Regional	Burnaby	Toronto	Calgary	Hamilton-Wentworth Regional	London	Waterloo Regional	Halifax Regional	Edmonton	Windsor	Winnipeg	Regina	Saskatoon
22.1	5.8	9.3	11.7	13.3	13.5	18.0	20.7	24.3	25.5	25.8	26.8	27.3	33.1	33.6	39.2	39.6

Ranked Lowest to Highest

- Winnipeg's infant mortality rate of 6 (per 1,000 live births) was slightly higher than the Canadian average 5.5 (per 1,000) in 1996. Regina had the highest rate at 8.5. York had the lowest rate at 3.5.

Health of Community Measures
Table 6.1 Infant Mortality Rate Per 1,000 Live Births (1996)

Canada	York Regional	Waterloo Regional	Burnaby	Hamilton-Wentworth Regional	Ottawa-Carleton Regional	Edmonton	Calgary	Peel Regional	Windsor	London	Halifax Regional	Winnipeg	Vancouver	Toronto	Saskatoon	Regina
5.5	3.5	3.6	4.3	4.4	4.9	5.4	5.5	5.5	5.8	5.9	6.0	6.0	6.4	6.4	6.8	8.5

Ranked Lowest to Highest

- In 1997, Winnipeg was second next to Windsor in working hours lost due to illness and disability. York has the least amount of hours lost.

Health of Community Measures
Table 6.5 Percentage of Work Hours Lost Due to Illness or Disability (all ages)

Canada	Burnaby	York Regional	Peel Regional	Toronto	Calgary	London	Ottawa-Carleton Regional	Edmonton	Saskatoon	Waterloo Regional	Halifax Regional	Vancouver	Regina	Hamilton-Wentworth Regional	Winnipeg	Windsor
4.1	0.0	1.2	2.2	2.7	3.4	3.7	3.8	3.9	4.1	4.2	4.3	4.3	4.4	4.9	5.3	6.2

Ranked Lowest to Highest

QUALITY OF HOUSING

- Winnipeg ranked second among all Municipalities studied in terms of the affordability to purchase an average priced home when using median family income as the determining factor.

Quality of Housing Measures
Table 4.1 Median Family Income as a Percentage of Average Value of Dwelling

Canada	Vancouver	Burnaby	Toronto	York Regional	Peel Regional	Hamilton-Wentworth Regional	London	Ottawa-Carleton Regional	Waterloo Regional	Calgary	Edmonton	Halifax Regional	Windsor	Saskatoon	[redacted]	Regina
30.3	10.0	13.0	19.8	21.1	25.1	31.5	31.7	33.3	33.6	34.1	35.2	41.5	42.9	46.7	47.9	57.2

Ranked Lowest to Highest

- While Winnipeg experienced an increase in the number of renters spending 30% or more of their income on rent (Winnipeg 24.3%), several cities showed an increase between 1991 and 1996 of nearly 40%. (Ottawa/Carleton 42.6%, Toronto 38.3%, and London 37.4%).

Quality of Housing Measures
Table 4.1a & 4.1b Gross Rent Spending

Canada	Vancouver	Calgary	Burnaby	[redacted]	Edmonton	Windsor	Peel Regional	Waterloo Regional	York Regional	Regina	Halifax Regional	Saskatoon	Hamilton-Wentworth Regional	London	Toronto	Ottawa-Carleton Regional
27.6	14.3	15.2	19.5	24.3	25.5	29.0	29.5	31.1	32.0	33.3	33.5	35.7	37.2	37.4	38.3	42.6

Ranked Lowest to Highest

- Winnipeg had the second highest percentage of substandard housing at 8.9%. Toronto had the highest figure at 9.1%.

Quality of Housing Measures
Table 4.2 Substandard Units as a Percentage of Total Occupied Private Dwellings

Canada	London	York Regional	Calgary	Saskatoon	Edmonton	Ottawa-Carleton Regional	Waterloo Regional	Hamilton-Wentworth Regional	Burnaby	Regina	Halifax Regional	Windsor	Peel Regional	Vancouver	[illegible]	Toronto
8.3	n/a	4.7	5.5	5.8	6.4	6.8	6.8	7.1	7.1	7.2	7.3	7.9	8.2	8.4	8.9	9.1

Ranked Lowest to Highest

- Residential property tax information was only available for 9 municipalities. Per capita. Winnipeg's residential property tax was lower than London, Toronto, Regina, Ottawa, and Windsor but higher than Edmonton, Burnaby and Hamilton-Wentworth.

Quality of Housing Measures
Table 4.1 a & 4.1b Residential Property Tax Revenues

Canada	Saskatoon	Calgary	Vancouver	Halifax Regional	York Regional	Peel Regional	Waterloo Regional	Hamilton-Wentworth Regional	Edmonton	Burnaby	[illegible]	Windsor	Ottawa-Carleton Regional	Toronto	Regina	London
N/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	194.6	250.0	259.8	322.6	363.2	474.0	611.7	611.9	785.8

Ranked Lowest to Highest

Appendix H: Comparison of CAMs for Test Run, With and Without Shelter (Rankings Shown)

CAM 1b and CAM 2b are when shelter proxy is added.

City (CMA)	CAM1	CAM1b	CAM2	CAM2b
St. John's	0.97 #11	1.01 #9	0.94 #9	0.97 #9
Charlottetown (ca)	1.00 #8	1.04 #7	1.07 #6	1.13 #4
Halifax	1.07 #4	1.07 #5	1.08 #5	1.08 #6
Saint John	1.03 #7	1.12 #4	0.95 #8	1.04 #7
Montreal	0.98 #10	1.03 #8	0.94 #9	0.99 #8
Ottawa	1.25 #1	1.19 #2	1.23 #1	1.15 #2
Toronto	1.06 #6	0.96 #10	1.03 #7	0.93 #10
Winnipeg	1.07 #4	1.07 #5	1.10 #4	1.11 #5
Regina	1.17 #2	1.22 #1	1.18 #2	1.25 #1
Edmonton	1.14 #3	1.17 #3	1.11 #3	1.15 #2
Vancouver	1.00 #8	0.91 #11	0.93 #11	0.84 #11

Appendix I : Comparisons of Average and Median Incomes for the Total Population (1) And Modest Income Population (2), and the resulting index scores

City (CMA)	Av. Inc 1	Ind.	Med Incl	Ind.	Av.Inc 2	Ind.	Med Inc2	Ind
St. John's	50,485	1.02	42,016	1.04	21,839	1.03	21,408	1.00
Charlottetown (ca)	47,110	0.96	40,291	1.00	22,450	1.06	23,013	1.08
Halifax	50,410	1.02	44,173	1.09	23,694	1.12	23,519	1.10
Saint John	47,180	0.96	41,849	1.03	21,204	1.00	20,493	0.96
Montreal	47,930	0.97	39,178	0.97	20,105	0.95	19,864	0.93
Ottawa	59,946	1.22	51,309	1.27	26,572	1.25	26,524	1.24
Toronto	57,333	1.16	43,847	1.08	22,071	1.04	22,374	1.05
Winnipeg	48,945	0.99	41,455	1.02	22,222	1.05	22,421	1.05
Regina	52,493	1.06	45,846	1.13	24,665	1.16	24,722	1.16
Edmonton	51,765	1.05	43,804	1.08	22,628	1.07	22,490	1.06
Vancouver	53,608	1.09	42,680	1.05	21,190	1.00	20,939	0.98

Appendix J: Cost of living indexes with a proxy shelter added for total population and Modest income population (1996 Test Run)

City (CMA)	Av. monthly rent* 2 br. apt ($)	Rents as proxy index	New cost index for CAM1(b)	New cost index for CAM2(b)
St. John's	570	0.95	1.04	1.03
Charlottetown (ca)	525	0.87	0.96	0.96
Halifax	617	1.02	1.02	1.02
Saint John	441	0.73	0.92	0.92
Montreal	491	0.82	0.94	0.93
Ottawa	739	1.23	1.07	1.08
Toronto	819	1.36	1.12	1.13
Winnipeg	567	0.94	0.95	0.95
Regina	494	0.82	0.93	0.93
Edmonton	518	0.86	0.92	0.92
Vancouver	845	1.4	1.15	1.17

* Rent figures are from CMHC rental survey, Oct, 1996

Appendix K: Survey on Stores distributed to Participating Municipalities

SURVEY:

Please mark an "x" in the box to indicate that the store exists in your area. If a particular store does not exist in your area, if possible, suggest an alternate store that would be comparable.

Store:	Yes	No	If "No" List Alternate
Grocery Stores:			
Safeway	☐	☐	_____
Superstore	☐	☐	_____
Extra Foods	☐	☐	_____
IGA	☐	☐	_____
Loblaws	☐	☐	_____
Co-Op	☐	☐	_____
Others	_____		
Department/Household/Hardwares			
Eatons	☐	☐	_____
Bay	☐	☐	_____
Sears	☐	☐	_____
Zellers	☐	☐	_____
Walmart	☐	☐	_____
Canadian Tire	☐	☐	_____
Car Dealership:			
Ford Dealership	☐	☐	_____
General Motors Dealership	☐	☐	_____
Chrysler Dealership	☐	☐	_____

Appendix L: Statistics Canada's list and associated weights utilized for pricing exercise

Weights for Canada Associated with the 1996 Basket,
Primary Classification1

Pondérations pour le Canada associées au panier de 1996,
classification primaire1

Commodity categories Catégories de produits	1996 Basket at December 1997 Prices Panier de 1996 aux prix de décembre 1997
All Items - Ensemble	100.00
Food - Aliments	17.89
Food purchased from stores - Aliments achetés au magasin	12.91
Meat - Viande	2.90
Fresh or frozen meat (excluding poultry) - Viande fraîche ou congelée (sauf la volaille)	1.32
Fresh or frozen beef - Boeuf frais ou congelé	0.98
Fresh or frozen pork - Porc frais ou congelé	0.34
Other fresh or frozen meat (excluding poultry) - Autres viandes fraîches ou congelées (sauf la volaille)	0.10
Fresh or frozen poultry meat - Volaille fraîche ou congelée	0.67
Fresh or frozen chicken - Poulet frais ou congelé	0.66
Other fresh or frozen poultry meat - Autre volaille fraîche ou congelée	0.12
Processed meat - Viande traitée	0.91
Ham and bacon - Jambon et bacon	0.32
Other processed meat - Autres viandes traitées	0.59
Fish and other seafood - Poisson et autres produits de la mer	0.41
Fish - Poisson	0.29
Fresh or frozen fish (including portions and fish sticks) - Poisson frais ou congelé (incluant les portions et les bâtonnets de poisson)	0.19
Canned and other preserved fish - Poisson en boîte ou autrement conservé	0.10
Other seafood - Autres produits de la mer	0.12
Dairy products and eggs - Produits laitiers et oeufs	2.09
Dairy products - Produits laitiers	1.90
Fresh milk - Lait frais	0.74
Butter - Beurre	0.12
Cheese - Fromage	0.61
Ice cream and related products - Crème glacée et produits connexes	0.14
Other dairy products - Autres produits laitiers	0.29
Eggs - Oeufs	0.18

Bakery and other cereal products - Produits de boulangerie et autres produits céréaliers	2.04
Bakery products - Produits de boulangerie	1.26
Bread, rolls and buns - Pains et petits pains	0.65
Biscuits - Biscuits	0.28
Other bakery products - Autres produits de boulangerie	0.34
Other cereal grains and cereal products - Autres grains céréaliers et produits céréaliers	0.76
Rice (including mixes) - Riz (y compris les mélanges)	0.09
Breakfast cereal and other cereal products - Céréales de table et autres produits céréaliers	0.31
Pasta products - Pâtes alimentaires	0.17
Flour and flour based mixes - Farine et autres mélanges à base de farine	0.20
Fruit, fruit preparations and nuts - Fruits, préparation à base de fruits et noix	1.40
Fresh fruit - Fruits frais	0.91
Apples - Pommes	0.17
Oranges - Oranges	0.14
Bananas - Bananes	0.13
Other fresh fruit - Autres fruits frais	0.37
Preserved fruit and fruit preparations - Fruits en conserve et préparations à base de fruits	0.51
Fruit juices - Jus de fruits	0.36
Other preserved fruit and fruit preparations - Autres fruits en conserve et préparations à base de fruits	0.15
Nuts - Noix	0.07
Vegetables and vegetable preparations - Légumes et préparations à base de légumes	1.25
Fresh vegetables - Légumes frais	0.92
Potatoes - Pommes de terre	0.14
Tomatoes - Tomates	0.13
Lettuce - Laitue	0.11
Other fresh vegetables - Autres légumes frais	0.55
Preserved vegetables and vegetable preparations - Légumes en conserve et préparations à base de légumes	0.33
Frozen and dried vegetables - Légumes congelés et déshydratés	0.11
Canned vegetables and other vegetable preparations - Légumes en conserve et autres préparations à base de légumes	0.21
Other food products - Autres produits alimentaires	2.82
Sugar and confectionery - Sucre et confiserie	0.43
Sugar and syrup - Sucre et sirop	0.11
Confectionery - Confiserie	0.33
Fats and oils - Matières grasses et huiles	0.19
Margarine - Margarine	0.11
Other edible fats and oils - Autres huiles et matières grasses comestibles	0.08
Coffee and tea - Café et thé	0.25
Coffee - Café	0.19
Tea - Thé	0.06
Condiments, spices and vinegars - Condiments, épices et vinaigres	0.36
Other food preparations - Autres préparations alimentaires	1.09
Soup - Soupe	0.16

Infant and junior foods - Aliments pour bébés et enfants	0.05
Pre-cooked frozen food preparations - Préparations alimentaires précuites et congelées	0.27
All other food preparations - Toutes autres préparations alimentaires	0.60
Non-alcoholic beverages - Boissons non alcoolisées	0.50
Food purchased from restaurants - Aliments achetés au restaurant	4.98
Food purchased from table-service restaurants - Aliments achetés de restaurants à service aux tables	2.84
Food purchased from fast food and take-outs restaurants - Aliments achetés de restaurants à service rapide ou de comptoirs de mets à emporter	1.42
Food purchased from cafeterias and other restaurants - Aliments achetés de cafétérias ou d'autres restaurants	0.72
Shelter - Logement	26.75
Rented accommodation - Logement en location	7.17
Rent - Loyer	6.98
Tenants' insurance premiums - Primes d'assurance de locataire	0.11
Tenants' maintenance, repairs and other expenses - Entretien, réparations et autres dépenses de locataire	0.09
Owned accommodation - Logement en propriété	14.95
Mortgage interest cost - Coût d'intérêt hypothécaire	4.91
Replacement cost - Coût de remplacement	2.68
Property taxes (including special charges) - Impôts fonciers (incluant les frais spéciaux)	3.55
Homeowners' insurance premiums - Primes d'assurance de propriétaire	1.05
Homeowners' maintenance and repairs - Entretien et réparations par le propriétaire	1.69
Other owned accommodation expenses - Autres dépenses pour le logement en propriété	1.07
Water, fuel and electricity - Eau, combustible et électricité	4.64
Electricity - Électricité	2.65
Water - Eau	0.39
Piped gas - Gaz	1.02
Fuel oil and other fuel - Mazout et autres combustibles	0.58
Household operations and furnishings - Dépenses et équipement du ménage	10.76
Household operations - Dépenses du ménage	6.90
Communications - Communications	2.79
Telephone services - Services téléphoniques	2.62
postal services and other communication services - Services postaux et autres services de communication	0.17
Child care and domestic services - Soins pour enfants et services d'aide familiale	1.11
Child care - Soins pour enfants	0.85
Domestic services - Services d'aide familiale	0.26
Household chemical products - Produits chimiques ménagers	0.73
Detergent and soap - Détersifs et savons	0.36

Other household chemical products - Autres produits chimiques ménagers	0.37
Paper, plastic and foil supplies - Articles ménagers en papier, en plastique et en papier d'aluminium	0.79
Paper supplies - Articles en papier	0.63
Plastic and foil supplies - Articles en plastique et en papier d'aluminium	0.16
Other household goods and services - Autres produits et services ménagers	1.48
Pet food and supplies - Nourriture et articles pour animaux domestiques	0.49
Seeds, plants and cut flowers - Semences, plantes et fleurs coupées	0.34
Other horticultural goods - Autres produits horticoles	0.09
Other household supplies - Autres articles ménagers	0.16
Other household services - Autres services ménagers	0.40
Household furnishings - Équipement du ménage	3.86
Furniture and household textiles - Articles d'ameublement	1.89
Furniture - Meubles	1.37
Upholstered furniture - Meubles rembourrés	0.41
Wooden furniture - Meubles en bois	0.51
Other furniture - Autres meubles	0.45
Household textiles - Articles ménagers et matière textile	0.52
Window coverings - Cache-fenêtres	0.17
Bedding and other household textiles - Literie et autres articles ménagers en matière textile	0.29
Area rugs and mats - Tapis et carpettes	0.06
Household equipment - Équipement ménager	1.64
Household appliances - Appareils ménagers	0.80
Cooking appliances - Appareils pour cuire les aliments	0.16
Refrigeration and air conditioning appliances - Articles de climatisation et de réfrigération	0.24
Laundry and dishwashing appliances - Appareils de blanchissage et lave-vaisselle	0.19
Other household appliances - Autres appareils ménagers	0.22
Kitchen utensils, tableware and flatware - Ustensiles de cuisine, couverts et articles de table	0.21
Kitchen utensils - Ustensiles de cuisine	0.09
Tableware and flatware - Couverts et articles de table	0.12
Tools and other household equipment - Outils et autre équipement ménager	0.62
House and yard tools - Outils ménagers et de jardinage	0.40
Other household equipment - Autre équipement ménager	0.23
Services related to household furnishings - Services relatifs à l'équipement du ménage	0.33
Clothing and footwear - Habillement et chaussures	**6.25**
Clothing - Habillement	4.17
Women's clothing - Vêtements pour femmes	2.27
Women's coats and jackets - Manteaux et vestes pour femmes	0.35
Women's dresses - Robes pour femmes	0.24
Women's suits, skirts and pants - Jupes, tailleurs et pantalons pour femmes	0.63

Women's blouses, sweaters and other tops - Chemisiers, chandails et autres corsages pour femmes	0.45
Women's active sportswear - Vêtements de sport pour femmes	0.12
Women's underwear, sleepwear and hosiery - Sous-vêtements, vêtements de nuit et bas pour femmes	0.48
Men's clothing - Vêtements pour hommes	1.46
Men's coats and jackets - Manteaux et vestes pour hommes	0.21
Men's suits and sport jackets - Complets et vestons sport pour hommes	0.22
Men's pants - Pantalons pour hommes	0.40
Men's sweaters and shirts - Chemises et chandails pour hommes	0.35
Men's active sportswear - Vêtements de sport pour hommes	0.10
Men's underwear, sleepwear and hosiery - Sous-vêtements, vêtements de nuit et bas pour hommes	0.17
Children's clothing - Vêtements pour enfants	0.45
Children's outerwear - Vêtements de dessus pour enfants	0.07
Children's pants and dresses - Pantalons et robes pour enfants	0.20
Children's sweaters, shirts and blouses - Chandails, chemises et blouses pour enfants	0.07
Children's active sportswear - Vêtements de sport pour enfants	0.05
Children's underwear, sleepwear and hosiery - Sous-vêtements, vêtements de nuit et bas pour enfants	0.06
Footwear - Chaussures	0.93
Women's footwear (excluding athletic) - Chaussures pour femmes (excluant celles d'athlétisme)	0.36
Men's footwear (excluding athletic) - Chaussures pour hommes (excluant celles d'athlétisme)	0.25
Children's footwear (excluding athletic) - Chaussures pour enfants (excluant celles d'athlétisme)	0.07
Athletic footwear - Chaussures d'athlétisme	0.25
Clothing accessories and jewellery - Accessoires vestimentaires et bijou	0.56
Leather accessories - Accessoires de cuir	0.14
Watches - Montres	0.07
Jewellery - Bijoux	0.20
Other accessories - Autres accessoires	0.16
Clothing material, notions and services - Tissus pour vêtements, menus articles et services vestimentaires	0.59
Clothing material and notions - Tissus pour vêtements et menus articles	0.12
Laundry service - Services de blanchissage	0.14
Dry cleaning services - Services de nettoyage à sec	0.21
Other clothing services - Autres services vestimentaires	0.12
Transportation - Transports	**18.96**
Private transportation - Transport privé	17.34
Purchase, leasing and rental of automotive vehicles - Achat, location à bail et location de véhicules automobiles	7.13
Purchase and leasing of automotive vehicles - Achat et location à bail de véhicules automobiles	7.02

Purchase of automotive vehicles - Achat de véhicules automobiles	6.30
Leasing of automotive vehicles - Location à bail de véhicules automobiles	0.72
Rental of automotive vehicles - Location de véhicules automobiles	0.10
Operation of automotive vehicles - Utilisation de véhicules automobiles	10.21
Gasoline - Essence	3.93
Automotive vehicle parts, maintenance and repairs - Pièces, entretien et réparation de véhicules automobiles	2.30
Automotive vehicle parts and supplies - Pièces et matériel pour véhicules automobiles	0.74
Automotive vehicle maintenance and repair services - Services de réparation et d'entretien pour véhicules automobiles	1.55
Other automotive vehicle operating expenses - Autres dépenses d'utilisation des véhicules automobiles	3.98
Automotive vehicle insurance premiums - Primes d'assurance de véhicules automobiles	3.35
Automotive vehicle registration fees - Frais d'immatriculation de véhicules automobiles	0.25
Drivers' licences - Permis de conduire	0.10
Parking fees - Frais de stationnement	0.16
All other automotive vehicle operating expenses - Toutes autres dépenses d'utilisation des véhicules automobiles	0.11
Public transportation - Transport public	1.63
Local and commuter transportation - Transport local et de banlieue	0.63
City bus and subway transportation - Transport urbain en autobus et métro	0.46
Taxi and other local and commuter transportation - Taxi et autres transports locaux et de banlieue	0.17
Inter-city transportation - Transport interurbain	1.00
Air transportation - Transport aérien	0.88
Rail, bus and other inter-city transportation - Transport par train, autobus et autres transports interurbains	0.12
Health and personal care - Santé et soins personnels	4.60
Health care - Soins de santé	2.11
Health care goods - Produits de soins de santé	0.85
Medicinal and pharmaceutical products - Médicaments et produits pharmaceutiques	0.76
Prescribed medicines - Médicaments prescrits	0.51
Non-prescribed medicines - Médicaments non prescrits	0.25
Other health care goods - Autres articles pour soins de santé	0.09
Health care services - Services de soins de santé	1.26
Eye care - Soins des yeux	0.36
Dental care - Soins dentaires	0.67
Other health care services - Autres services de soins de santé	0.22
Personal care - Soins personnels	2.49
Personal care supplies and equipment - Articles et accessoires de soins personnels	1.55
Personal soap - Savon pour usage personnel	0.07

Toilet preparations and cosmetics - Produits de toilette et produits de beauté	0.92
Oral-hygiene products - Produits d'hygiène buccale	0.14
Other personal care supplies and equipment - Autres articles et accessoires de soins personnels	0.41
Personal care services - Services de soins personnels	0.95
Recreation, education and reading - Loisirs, formation et lecture	11.25
Recreation - Loisirs	8.56
Recreational equipment and services (excluding vehicles) - Matériel et services de loisirs (excluant les véhicules)	2.06
Sporting and athletic equipment - Matériel de sport et d'athlétisme	0.50
Toys, games and hobby supplies - Jouets, jeux et materiel pour passe-temps	0.40
Computer equipment and supplies - Matériel et fournitures informatiques	0.65
Photographic equipment - Matériel photographique	0.05
Photographic services and supplies - Services et fournitures photographiques	0.27
Other recreational equipment and services - Autres matériel et services de loisirs	0.19
Purchase and operation of recreational vehicles - Achat et utilisation de véhicules de loisirs	1.07
Purchase of recreational vehicles - Achat de véhicules de loisirs	0.67
Operation of recreational vehicles - Utilisation de véhicules de loisirs	0.41
Fuel, parts and supplies for recreational vehicles - Carburant, pièces et fournitures pour véhicules de loisirs	0.19
Insurance, licences and other services for recreational vehicles - Assurance, permis et autres services pour véhicules de loisirs	0.21
Home entertainment equipment and services - Matériel et services de divertissement au foyer	1.56
Audio equipment - Matériel audio	0.27
Audio discs and tapes - Bandes audio et disques audionumériques	0.36
Video equipment - Matériel vidéo	0.39
Rental of videotapes and videodiscs - Location de vidéocassettes et de vidéodisques	0.30
Purchase of videotapes and videodiscs - Achat de vidéocassettes et de vidéodisques	0.14
Other home entertainment services and equipment - Autres services et matériel de divertissement au foyer	0.10
Travel services - Services de voyage	1.69
Traveller accommodation - Hébergement pour voyageurs	0.99
Travel tours - Voyages organisés	0.69
Other recreational services - Autres services récréatifs	2.20
Spectator entertainment (excluding cablevision) - Spectacles (sauf la câblodistribution)	0.59
Cablevision (including pay tv) - Câblodistribution (incluant la télévision payante)	0.74
Use of recreational facilities and services - Utilisation d'installations et de services de loisirs	0.68
Education and reading - Formation et lecture	2.67

Education - Formation	1.92
Tuition fees - Frais de scolarité	1.31
School textbooks and supplies - Manuels et fournitures scolaires	0.33
Other lessons, courses and education services - Autres leçons, cours et services éducatifs	0.26
Reading material and other printed matter (excl. Textbooks) - Matériel de lecture et autres imprimés (sauf les manuels scolaires)	0.75
Newspapers - Journaux	0.33
Magazines and periodicals - Revues et périodiques	0.15
Books (excluding textbooks) and other printed matter - Livres (sauf les manuels scolaires) et autres imprimés	0.26
Alcoholic beverages and tobacco products - Boissons alcoolisées et produits du tabac	3.54
Alcoholic beverages - Boissons alcoolisées	1.87
Served alcoholic beverages - Boissons alcoolisées servies dans les débits de boisson	0.68
Served beer - Bière servie dans les débits de boisson	0.36
Served wine - Vin servi dans les débits de boisson	0.10
Served liquor - Spiritueux servis dans les débits de boisson	0.12
Alcoholic beverages purchased from stores - Boissons alcoolisées achetées au magasin	1.30
Beer purchased from stores - Bière achetée au magasin	0.65
Wine purchased from stores - Vin acheté au magasin	0.32
Liquor purchased from stores - Spiritueux achetés au magasin	0.33
Tobacco products and smokers' supplies - Produits du tabac et articles pour fumeurs	1.66
Cigarettes - Cigarettes	1.39
Other tobacco products and smokers' supplies - Autres produits du tabac et articles pour fumeurs	0.27

Appendix M: Weights provided by Statistics Canada for Test Run July 1997 & Weights utilized for 1998 Pricing Exercise

Weights utilized for Test Run July 1997

Category	(Whole Population CAM 1) *	(Modest Income CAM 2) *
Food	17.41	18.43
Shelter	29.07	32.64
Household	9.56	9.28
Clothing	6.54	5.66
Transport	18.13	16.10
Health	4.14	4.59
Recreation	10.83	8.77
Alcohol	4.32	4.53

Weights utilized for 1998 Pricing exercise

Category	Whole Population CAM 1 *	Modest Income CAM 2
Food	17.89	18.91
Shelter	26.75	30.32
Household	10.76	10.48
Clothing	6.25	5.37
Transport	18.96	16.93
Health	4.60	5.05
Recreation	11.25	9.19
Alcohol	3.54	3.75

* Weights provided by Statistics Canada

Table of Contents

INTRODUCTION

This pricing guide contains a list of 168 items to be priced. The items are divided into seven categories including:

- Food
- Household Operations
- Health & Personal Care
- Recreation, Education, & Reading
- Household Furnishings
- Transportation
- Alcoholic Beverages & Tobacco

Each category includes an instruction which addresses store selection and specific pricing guidelines. Pricing sheets describing the item to be priced are included which are to be completed by the designated "pricer".

While prices are to be obtained from grocery stores, department stores, etc., many of the prices in some of the categories may be obtained over the phone. Suggestions regarding which items may be priced over the phone are included in this guide.

This guide should be all that is required to take to the store in order to complete the pricing exercise.

FOOD

- There are 68 food items listed.
- Price each item at 3 different stores and complete the attached price sheets.

INSTRUCTIONS FOR STORE SELECTION:

- Three grocery stores need to be identified for the pricing of food.
- Select only large, common grocery store outlets that are part of a chain, for example, Safeway, Superstore, Extra Foods, IGA, Loblaws, Co-Op, A&P, Loebs, Maxi, Co-Op.

  - Do not select large wholesale outlets or clubs where membership dues are required such as Costco.
  - Do not select small corner store or privately owned locations.

- Select one store that is located in the core downtown area. The other two should be from the surrounding areas/suburbs. (Your discretion is required in selecting representative stores.)

IN STORE PRICING GUIDELINES:

- Price 'store brand' names. When 'store brand' names are not available, price the brand with the largest shelf volume in a given outlet.
- If the weight and/or quantity specified on your price sheet cannot be found, use the closest one and indicate on the form the exact weight and/or quantity priced.
- When an item is temporarily out of stock in a given outlet, utilize the last recorded price unless it was a sale price (in which case the last regular price should be used).
- If an item is not available in a given outlet, price a similar item and record this on the pricing sheet.
- Taxes - GST and PST: Do not include either GST or PST in the prices if the shelf price does not include them. Indicate on the form if any shelf price includes one or both.

	Food							
	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	*Quantity priced		PRICES	
						1	2	3
	Meat							
1	Beef, Top Sirloin Steak	Top boneless Sirloin Steak	1.00kg	Price Sirloin Steak with Tenderloin as alternate.				
2	Stewing Beef	Boneless lean cubes or chunks of beef, cut in 1" - 2", fresh or frozen	1.00kg	Do not price beef cubes for fondue, shish kabob, or other specials such as tikns.				
3	Ground Beef	Regular ground beef, made from a mix of grounded fresh or frozen beef	1.00kg	Package of "medium ground beef", with a fat level content between 18% to 22%.				
4	Pork Sausage	Fresh or frozen pork sausage	500g	Sausage must be labelled as "sausage".				
	Fresh or Frozen Poultry Meat							
5	Chicken	Fresh broiler or fryer chicken (young birds)	1.00kg	Frozen may be priced on a consistent basis.				
6	Turkey, Frozen	Frozen eviscerated whole young birds, 15 - 16 wks old	1.00kg	Price a self-basted or deep-basted premium.				
7	Sliced Bacon	Prepackaged bacon	500g	Price the volume selling brand consistently.				
	* Only complete if different than quantity specified.							
	kg = kilogram							
	g = gram							
	L = litre							
	Ut = units							

	Food						
	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2
8	Weiners	Made from meat trimmings, smoked and cooked with water and seasoning into a skinless natural synthetic casing	450g (1 doz)	Select and price store brand name if available or highest shelf volume.			
9	Salami	Dry or semi-dry sausage, sliced; purchased from the delicatessen	100g	Select and price store brand name if available or highest shelf volume.			
10	Sliced Packed Cooked Meat	Table ready cooked meats, in the form of sliced variety Prepacked in cryovac	175g	Price only domestic type sliced meats. Select either a luncheon loaf (delicia), macaroni & cheese.			
	Fresh or Frozen Fish						
11	Cod Fillets, Frozen	Cod Fillets, Frozen (Packaged)	400g				
12	Fish Sticks, Cod, Frozen		400g	Price Cod Fish Sticks, breaded or precooked.			
	While in frozen foods section, you may want to price # 51						
	Canned and Preserved Fish						
13	Canned Tuna	Solid chunk white meat tuna fish	198g	Price and record the closest weight if 198g is not available.			
14	Canned Shrimps	Medium size shrimps	113g	Price and record the closest weight if 113g is not available.			

	Food				Quantity	PRICES		
	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	priced	1	2	3
	Milk							
15	Homogenized Milk, 1 Litre	Fresh whole homogenized milk, 1 litre disposable container (carton)	1.00 L	3.25% to 3.99 % fat content. Do not price Jersey, skim or any specially processed milk, flavoured Super 2.				
16	Homogenized Milk, 2 Litre	Fresh whole homogenized milk, pasteurized	2.00 L					
17	Partially Skimmed Milk, 2% M.F., 1 Litre	Fresh 2% M.F. partly skimmed milk, pasteurized	1.00 L	Price highest shelf volume (most representative type).				
18	Partially Skimmed Milk, 2% M.F., 2 Litre	Fresh 2% M.F. partly skimmed milk, pasteurized	2.00 L	Price highest shelf volume (most representative type).				
19	Butter (Refer to #56 for possible completion.)	Regular creamery, less than 80% milk fat	1.00 lb	Canada First Grade. Do not price unsalted or individually wrapped quarters.				
	Cheese							
20	Cheddar Cheese	Canadian Medium Cheddar, made from fresh milk and may contain solids, may be either white or yellow	1.00kg	Price highest shelf volume (most representative type).				
21	Creamed Cottage Cheese	Consists of mixtures of curd with cream or a mixture of cream and milk or skimmed milk	500g	Price highest shelf volume (most representative type).				

Food

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2	3
22	Ice Cream	Made from cream and/or milk solids, sugar, emulsifiers,		If no 'store brand name', the volume selling brand				
	(Refer to #64 for possible completion.)	& stabilizers with vanilla added, chocolate and/or lactic		should be priced on a consistent basis.				
		cultures						
23	Yogurt	Fruit flavoured yogurt, made from milk solids and lactic	500g					
		cultures						
24	Evaporated Milk (Canned Milk) (Refer to #'s 58, 59 for possible completion.)	Homogenized, sterilized, made from whole milk	385ml	Do not price infant formula, skim or concentrated.				
25	Eggs	Carton of one dozen large size fresh eggs, may have	1.00 doz	Canada Grade A only.				
		white or brown shell						
	Bakery Products							
26	Bread	Pan style white bread, sliced, prepared from enriched	675g					
		white bread flour						
27	Hamburger Buns	Prepared from enriched white bread flour (package)	8.00 Ul	Do not buy bulk, but packaged.				

	Food							
	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2	3
	Biscuit							
28	Soda Crackers	Salted, unsalted or saltine type soda crackers	450g	If 'Paulin's' not available, price 'store brand name'				
	Other Bakery Products	(Brand Name: Paulin's)		or highest shelf volume.				
29	Cookies, Plain	Plain dry cookies (tea or digestive type), or sweet	400g	Price store brand name or highest shelf volume.				
		biscuits (sprinkled with crystallized sugar)						
30	Muffins, Bran	Regular size bran muffins	6.00 Ul	Price store brand name or highest shelf volume.				
	Cereal Grains and Products							
31	Long Grain Rice - Instant	Rice that is of regular long grain type (instant)	900g	Price store brand name or highest shelf volume.				
32	Rolled Oats	Quick cooking (2-1/2 to 5 minutes cooking time)	1.35kg	Price store brand name or highest shelf volume.				
33	Macaroni	Dry tubular shape macaroni, straight or elbow (ready cut)	500g	Price store brand name or highest shelf volume.				
34	Flour	White all-purpose flour	2.50kg	Price store brand name or highest shelf volume.				

	Food							
	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2	3
	Fresh Fruit							
35	Apples	Macintosh apples	1.00kg					
36	Oranges	California 'Valencia' oranges or 'Navel' oranges	1.00kg					
37	Bananas	Bananas	1.00kg					
38	Grapefruit	Pink grapefruit	1.00kg					
39	Fresh Grapes	Green seedless	1.00kg					
40	Cantaloupe	Medium size	1.00kg					
41	Apple Juice, Pure	Unsweetened, natural, pure apple juice, 48 fluid ounce (1.36 L can)	1.36 L	Price 'store brand name' if available or highest shelf volume.				
42	Orange Juice	Pure, unsweetened or 5% sugar added tin (1.36 L)	1.00 L	Price only 'pure' orange juice.				
43	Jam, Strawberry	Jam, strawberry, labelled 'with pectin'	500 ml	Labelled 'pure' jam may be priced consistently.				
	Nuts							
44	Peanuts, Shelled	Valencia salted, shelled peanuts	450 g					
	Fresh Vegetables							
45	Potatoes	Multi purpose variety of table potatoes (Red)	10 lb	Price highest shelf volume.				
46	Tomatoes, Fresh	Fresh tomatoes, domestic or imported, which may be sold in bulk or packaged	1.00 kg	Price highest shelf volume.				

	Food					PRICES	
	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	1	2	3
47	Lettuce	Head lettuce, "Iceberg" type average size head	1.00 Ut	Do not price leaf lettuce, Romaine, Chinese or Curly.				
48	Cabbage	Fresh green cabbage, domestic or imported	1.00kg	Do not price Chinese, Red or Savoy types.				
49	Carrots	Bulk or loose, tops completely removed	1.00kg	Price the closest weight if 1.00kg is not available.				
50	Broccoli	Broccoli bunches, (firm cluster of small dark green flower buds on stems)	1.00kg	Price imported or local supplies consistently.				
51	French Fried Potatoes, Frozen	Frozen french fried potatoes, regular, crinkle or shoe-string	1.00kg	Price Grade A or Fancy.				
	Canned Vegetables and Preparation							
52	Canned Green Beans	Canned green beans	1.00kg	Price highest shelf volume.				
53	Baked Beans, Canned (Pork & Beans) (Refer to #62 for possible completion.)	Canned beans, cooked with pork and tomato sauce	398ml	Price store brand name or highest shelf volume.				
	Sugar and Confectionery							
54	Sugar	White granulated sugar	2.00kg	Price white granulated sugar only.				
55	Chocolate bar	Chocolate bar, 40g, regular size, 'Oh Henry'	1.00 Ut					
	Fat and Oil							
56	Margarine	Soft type, colored, made from 100% vegetable oil, or blend of different vegetable oils	1.00 lb	Price 100% vegetable oil or blend of the following oil: Canola, Corn, Soya, Safflower, Sunflower and Palm.				
57	Cooking Oil or Salad Oils	100% vegetable oil for cooking and salads (Canola)	1.00 lb	Price store brand name or highest shelf volume.				

Food

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2	3
	Coffee and Tea							
58	Coffee, Instant	Instant Coffee	200g					
59	Tea Bags	Tea bags, paper. Black tea, labelled - package of 72 (8 oz or 227g)	72 Pk	80 package may be priced if 72 package is not available. Do not price 'green' tea.				
	Condiments	Brand Name: Red Rose						
60	Table Salt	Table Salt, 1kg box	1.00kg	Do not price coarse salt.				
61	Peanut Butter	Made from roasted peanuts; may be labelled smooth, creamy or chunky	500g	Do not price 'Super Chunky' type.				
62	Soup, Vegetable, Canned	Mixed vegetable soup, condensed	284ml	Price highest shelf volume.				
	Infant and Junior Foods							
63	Infant Formula (Canned)	Concentrated liquid', i.e: must add water before feeding (Similac)	385ml	If Similac is not available, price enfalac				
	Food Preparations							
64	Frozen Cake, Iced	Flavours: Banana, Orange, Chocolate, etc.	397g	Price same flavour consistently.				
65	Tomato Ketchup	Made from juice of ripe tomatoes, sugar vinegar and seasonings, Brand Name: Heinz	1.00 L					

Food

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2	3
66	Pepper, Black	Black pepper, Ground	113g	8 oz container may be priced consistently.				
67	Soft Drinks, Cola Type	Carbonated beverages, 2 litre refundable plastic bottle	2.00 L					
		Brand Name: Pepsi						
68	Soft Drinks, Lemon-Lime Type	Carbonated beverages, Lemon-Lime type	2.00 L					
		Brand Name: Sprite						
	* Please price 'Household Operations' #'s 6-15 while at grocery store.							

HOUSEHOLD OPERATIONS

- There are 16 household items listed.
- For items 1 through 5 and 16, prices can be obtained over the phone.
- For items 6 through 15, please obtain prices from grocery stores while pricing food. Please price at the different stores.

INSTRUCTIONS FOR STORE SELECTION:

- Utilize same stores as identified for FOOD pricing.

IN STORE PRICING GUIDELINES:

- When brand names specified on the pricing sheet are not available, select another brand name of similar quality and list this on the pricing sheet.
- When quantities listed on the pricing sheet cannot be found, use the closest one and indicate on the form the exact weight and/or quantity priced.

Household Operations

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity Priced	PRICES 1	2	3
	Telephone Calls							
1	Long Distance, Intra	For 1, 2 and 3:	5 mins	Long distance call within the Province.				
2	Long Distance, Trans Canada	Price main local telephone service provider only (i.e Bell	5 mins	Long distance call anywhere within Canada.				
3	Long Distance, U.S.A.	not AT&T or Sprint) Time of call between 8.00 am -	5 mins	Long distance call anywhere in the USA.				
		6.00 pm, Mon. - Fri. Duration of call - 5 minutes						
4	Day Care Centre	Price monthly rate at one licensed or Provincially approved		Rates must include at least lunch and one snack.				
		centre which provides care for a 4 year old outside his/her						
		own home for 8-10 hrs a day, between 700-1800 hours.						
5	Minimum Hourly Wage	Minimum hourly wage in each province		Rates can be obtained from Labor Canada,				
				Legislative and Research Division.				
	Detergents							
6	Synthetic Laundry Detergent, Powder	A box of concentrated laundry detergent powder	2 L	May be labelled 'concentrated', 'all temperature',				
	Brand Name: Tide			lemon-fresh', 'scented', 'unscented', etc.				
7	Dishwashing Detergent, Liquid	Liquid dishwashing detergent	950ml	If 'Sunlight' is not available, obtain price for similar product				
	Brand Name: Sunlight							
8	Scouring Powder	Scouring powder	400g	If 'Comet' is not available, obtain price for similar product.				
	Brand Name: Comet							

Household Operations

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity Priced	PRICES 1	PRICES 2
9	Paper Towels	One package of 2 rolls,1 or 2 ply sheets,	2.00 roll	If 'Bounty' is not available, obtain price for similar product.			
	Brand Name: Bounty	plain or printed					
10	Bathroom Tissue	Package of 4 rolls, 1 or 2 ply sheets,	4.00 roll	If 'Royale' is not available, obtain price for similar product.			
	Brand Name: Royale	white or colored					
11	Plastic Wrap	Plastic food wrap	30m	If 'Saran' is not available, obtain price for similar product.			
	Brand Name: Saran						
	Pet Food and Supplies						
12	Dog Food, Canned	Complete ration containing one or more meats	380g	If 'Purina' is not available, obtain price for similar product.			
	Brand Name: Purina (Adult Dog)	and/or poultry					
13	Dog Food, Dry/Moist	Dry, soft dry, semi-moist and similar mixtures	2.00kg	If 'Purina' is not available, obtain price for similar product.			
	Brand Name: Purina (Adult Dog)						

Household Operations

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity Priced	PRICES 1	2	3
	Seeds, Plants and Cut Flowers							
14	Potted Flowers	Potted mums (chrysanthemums), medium sized mums (approximately 6" pot) of any color	1	Pot size should be consistent. Price at grocery stores.				
15	Light Bulb	One package of four 60 watts, standard, incandescent inside frosted bulbs	4.00 Ut (60 watts)	Soft white type may be priced as alternative. Exclude 'No Name' brand.				
16	Nursery Shrubs, Mugho Pine	Coniferous evergreen ornamental shrubs, used for planting in the home garden	1	Burlapped, potted or container grown. Obtain prices from two different nurseries. Do not price shrubs at grocery or other stores. Could likely obtain information by phone.				

HEALTH & PERSONAL CARE

- There are 16 Health and Personal Care items listed.
- For some items, you may be able to obtain prices over the phone; others will require you to attend in person. (Use your discretion.)

INSTRUCTIONS FOR STORE SELECTION:

- Two different Drug Store/Pharmacy chains need to be identified for pricing. For consistency, please select Shopper's Drug Mart and Pharma Plus if available; if not, select one that is comparable.
- DO NOT UTILIZE A PHARMACY located within a grocery store.

IN STORE PRICING GUIDELINES:

- If the brand name specified on the price sheet is not available, please select a product of similar quality and list the brand name.
- If the quantity specified on the price sheet is not available, price the next closest and record on the price sheet.

Health & Personal Services

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity Priced	PRICES 1	2	3
	Prescribed Medicines							
1	Anti-infective agents, Amoxicillin	Amoxicillin B.P., 250mg strength	30 CP	The price should be for a cash paying customer.				
2	Anti-infective agents, Tetracycline	Tetracycline HCL, 250mg strength	40 CP	The price should be for a cash paying customer.				
3	Diazepam	Diazepam, 50mg strength	50 TB	The price should be for a cash paying customer.				
4	Naproxen	Naproxen, 250mg strength	50 TB	The price should be for a cash paying customer.				
	Non-prescribed Medicines							
5	Propranolol	Propranolol, 40mg strength	100 TB	The price should be for a cash paying customer.				
6	Bandages Brand Name: Johnson & Johnson	Adhesive bandage strip, 25 strip bandages about 3/4" x 3", cloth with plain or medicated pad, 1 box	25 UT	Price cloth type only.				

CP = capsules
TB = tablets
UT = units

Health & Personal Services

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity Priced	PRICES 1	2	3
	Eye Care							
7	Contact Lenses	Price for six disposable soft contact lenses	6	Contact 2 different eye wear distributors.				
	Brand Name: Acuvue			Can likely obtain price over the phone from				
				eye glass or contact lense store.				
	Dental Care							
8	Oral Examination	Oral examination of permanent dentition for a patient	1	Contact 2 different dentist offices to				
		who is attending on a regular basis		obtain price.				
	Personal Care							
9	Personal Soap	Ivory Soap (regular size)	3 Bars					
	Brand Name: Ivory							
10	Toilet Soap	Toilet Soap, white or colored, one cake , bath size	1					
	Brand Name: Dove	(about 130g), wrapped						
11	Lipstick	Shades, regular size, metal or plastic case	1.00 Un	Lipstick, cream type (opaque)				
	Brand Name: Cover Girl							

	Health & Personal Services							
	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity Priced	PRICES 1	2	3
12	Cologne	Women's Spray Cologne	28ml					
	Brand Name: Chanel 5							
13	Toothpaste	Colgate toothpaste, standard denitrice	100ml					
	Brand Name: Colgate							
14	Infants' Disposable Diapers	Regular absorbency for a 20 pound baby (medium)	32 Ut	Waterproof backing, Cellulose filling and moisture				
	Brand Name: Pampers			resistant liner with self-sticker tapes				
	Personal Care Services							
15	Men's Haircut	Regular haircut at a representative shop having three or		Do not price in hotels. Price may include shampoo if				
		more barbers		no additional charge is involved.				
16	Women's Hairdressing	Hairdressing service, shampoo, cut & blow dry at a known		Do not price in hotels or private beauty salons, only				
		hairdressing chain, i.e., Ultracuts, Singleton's, Magicuts		franchises where there is more than one store in the city				

RECREATION, EDUCATION & READING

- There are 20 items listed.
- Price each item at 2 different stores and complete the attached price sheets.

INSTRUCTIONS FOR STORE SELECTION:

- Two department stores need to be identified to obtain prices for Items 1 to 11.
- Select only large, common department stores such as Sears, The Bay, Eatons, etc. Price at Sears and The Bay when available.

IN STORE PRICING GUIDELINES:

- Price 'brand names' when specified. If 'brand name' is unavailable, price a similar product.
- Items 12 to 20 may be priced by telephone.
- Obtain price for 'Education' from one institution only.

Recreation

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2	3
	Recreation, Equipment & Services							
1	Golf Club Set	Man's right handed golf set consisting of 11 pieces -	1 set	If 'Wilson' is not available, price 'Spalding' or the				
	Brand Name: Wilson	3 woods and 8 irons		closest model. Price at two different locations.				
		Wood; a stainless steel oversize head iron; a cast						
		stainless steel oversize head						
2	Brand Name: Titleist	Balls with two piece (solid center) construction and a	1 doz	If 'Titleist' is not available, price 'Pinnacle'. Price at				
		surlyn cover		two different locations.				
3	Construction Set, Plastic	Lego plastic construction set for 3 to 5 year olds,	1	If 'Lego' is not available, price the closest model.				
	Brand Name: Lego	(24 pieces)						
4	Games	Family board game	1					
	Brand Name: Monopoly by Parker Bros							

Recreation

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2	3
5	Camera 35mm AF (single focal length) Compact Brand Name: Canon	35mm automatic compact camera (point and shoot automatic film loading), film speed set (DX code sensor) advance and rewind, automatic exposure, built-in automatic flash, self-timer, built-in lens cover, and a single focal length 35mm lens with an aperture in the range of f 2.8 to f 4.5	1.00 ea	Price the low end 'Canon only'. Price at two different locations.				
6	Portable Radio/Cassette Player (WalkMan) Brand Name: Sony	Portable battery powered AM/FM stereo and cassette player with head phones		Price at two different locations.				
7	Excercise Bike	Stationary single action adult exercise bike (cycle having a belt tension system with felt lining, multi-position tension adjustment, a cast iron fly wheel, chain drive mechanism, adjustable handlebar with foam grips, adjustable seat, moulded pedals, and a multi-function electronic readout)	1.00 ea					
8	27" Stereo Color Television, Monitor Style Brand Name: RCA	A 27" viewing area monitor style color television with MTS stereo (multi-channel television sound-two speakers), audio and video/output jacks, remote control and on-screen displays	1.00 ea	Do not price 'picture-in-picture' model. Price at two different locations.				

	Recreation							
	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2	3
9	Movie Cassette Rentals	One day rental of a 'New Release' VHS cassette. Pick up Friday and return Saturday.	1.00 ea	Obtain price from two different movie rental outlets or chains.				
10	Pre-Recorded Video Cassette Tape The Lion King	Pre-recorded video cassette tape VHS format	1.00 ea	Obtain price from department stores.				
11	Audio Cassette Tape Maxwell	One blank audio cassette tape, HI-bias Type II with a recording capacity of 90 minutes	1.00 ea	Price similar product if 'Maxwell' is not available.				
12	Cable Television	Basic cable package for one month		Do not include addition package.				
13	Fitness Centre	Renewal of an adult membership to a well-equipped fitness centre for one full year. The centre must have a well-equipped exercise room and aerobic classes		Obtain prices from non-subsidized centres only. The prices must include the use of exercise room and aerobic class. Obtain price from two different fitness centres that have centres in more than one location in the city (franchise).				
14	Baseball Admission	Regular adult admission price to a regular season baseball game	1.00 ea	Do not obtain prices for professional baseball teams.				

	Recreation							
					Quantity		PRICES	
	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	priced	1	2	3
15	Motion Picture Admission	Saturday evening admission price for one adult to a cinema featuring a new released motion picture	1.00 ea	Obtain price from two different cinemas. Do not price in discount cinema houses.				
	Education							
16	Tuition Fees, University	Tuition fees for a first year university student enrolled in Arts Program (30 credits). Tuition fee for one year only.		Obtain fees for a full-time student. Do not price in a private school, but the largest university in your municipality. If no university in your municipality, the closest university.				
17	Hard Cover Book	The #1 best seller hard copy book in a bookstore.		Obtain prices in two bookstores only but for the same best seller.				
18	Tuition Fees at Community College for One Course	Tuition fees for an introductory micro-computer course for a College student		Price one full course for a full-time student.				
	Reading Material and Other Printed Matter							
19	Daily Newspapers, Single Copy	Weekly single copy rates at a newsstand for a daily newspaper		Obtain prices for two local newspapers.				
20	Newspapers, Monthly Subscription	Weekly home delivery subscription rate for a daily newspaper		Obtain prices for two local newspapers.				

HOUSEHOLD FURNISHINGS

- There are only 3 items.
- Price each item at two different department stores.

INSTRUCTIONS FOR STORE SELECTION:

- Two department stores need to be identified. Utilize same stores as identified for 'Recreation'.
- Please utilize Sears and The Bay if available; if not, utilize Eaton's or another large department store.

IN STORE PRICING GUIDELINES:

- Price brand names when specified. If brand name is unavailable, price the highest volume seller.
- If no brand name is specified, simply price the highest volume seller in each department store.

Household Furnishings

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2	3
1	Mattress and Box Spring	Good quality queen size mattress (152 x200 cm/ 60" x 80") with a polyester/rayon multi-needed quilted damask covering; up to 650 steel coils, 14 gauge with 5 turns, matching box spring	1.00 ea	Price the highest volume (Higher Price) seller in each outlet.				
2	Microwave Oven Brand Name: Panasonic	Model with electronic controls and an oven capacity of 0.8 to 1.2 cu. ft.	1.00 ea	Model must have at least 5 years warranty.				
3	Stainless Steel Cookware Brand Name: Revere	Tri-ply stainless steel cookware, 5 to 17 piece set with plastic handles and knobs	5.00 Lt	The price set should not include an egg poacher.				

TRANSPORTATION

- There are 16 items listed.
- For most items, you will be able to obtain prices over the phone. (Use your discretion.)

INSTRUCTIONS FOR STORE SELECTION:

- For item 1, Automobile Purchase, two Chrysler car dealerships need to be identified for pricing. Utilize large Chrysler dealerships which are representative.
- For item 2, Car Rental, two car rentals need to be identified. Select well-known rentals such as Budget, Thrifty, Low-Cost, Avis, Hertz. (If available, utilize Budget and Thrifty.)
- For Automotive Parts & Repairs, identify two stores/garages. Utilize Canadian Tire and Sears, if available. If not available, select other moderate cost operations and please record on price sheet.

IN STORE PRICING GUIDELINES:

- If the brand name specified is not available, please utilize 'store brand' name. If no 'store brand' name, select another brand name of similar quality and record on price sheet.

Transportation

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2	3
	Purchase and Rental of Automobiles							
1	Plymouth Neon	1998 Plymouth Neon Highline (4-door, automatic, standard engine) with the 22D package (which includes air conditioning, tilt, floor mats - front and rear)		Obtain the after tax price. Call and ask for the MSRP price (Manufacturer's Suggested Retail Price), or List Price, with the 22D package.				
2	Rental of automobile vehicles	Total "weekend special" cost for rental of mid-size car from Friday to Monday noon by a person 25 years old or over, including collision damage waiver. Assume 300 km/day for total of 900 km.		Contact two car rentals - Utilize Budget and Thrifty.				
	Operation of Automobile							
3	Regular Unleaded Gasoline - With Service	Regular unleaded gasoline	1.00 L	Prices should include all taxes.				
4	Regular Unleaded Gasoline - Self-Serve	Regular unleaded gasoline	1.00 L	Prices should include all taxes.				
5	Premium Unleaded Gasoline - With Service	Premium unleaded gasoline	1.00 L	Prices should include all taxes.				

Transportation

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2	3
6	Premium Unleaded Gasoline-With Service	Premium unleaded gasoline	1.00 L	Prices should include all taxes.				

* Obtain prices for 'Tobacco Products' #'s 4, 5 and 6 from gas stations.

Automotive Vehicle Parts - Maintenance & Repairs

7	Oil Filter Brand Name: UAP NAPA, Motomaster or FRAM	One filter meeting the original equipment quality requirements for a 1998 Plymouth Neon Highline	1.00 ea	Prices should include all taxes. Price at two locations (Canadian Tire and Sears).				
8	Spark Plug Brand Name: NGK or FRAM	Spark plug for a 1998 Plymouth Neon Highline	1.00 ea	Prices should include all taxes. Price at two locations (Canadian Tire and Sears).				
9	Muffler Replacement	One muffler and the installation cost on a 1998 Plymouth Neon Highline	1.00 ea	Obtain prices from two locations (Canadian Tire and Sears).				
10	Disc-Brake Pads Replacement	One front set (4 pads for two wheels), plus the installation cost for a 4 year old Plymouth Neon Highline	1.00 ea	Obtain prices for: 4 pads; installation cost and total price. Obtain prices from two locations (Canadian Tire and Sears).				

Transportation

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2	3
11	Oil Change	Oil change and lubrication on a 4 year old Plymouth Neon Highline	1.00 ea	Obtain prices at two locations (Canadian Tire and Sears).				
12	Tune-Up	Total charge for a minor tune-up (parts and labour) on a 4-year old Plymouth Neon Highline		4 spark plugs to be replaced. Obtain two prices from different locations.				
13	Automotive Vehicle Insurance Premiums	Comprehensive annual insurance fee for a 1998 Plymouth Highline private car for a 25 year old, married, Class 5 male driver (All Purpose)		Obtain prices for automobile use for work and pleasure (All Purpose) and not more than two drivers per household. Driver with clear driving record. For those provinces with private insurance, obtain price from two different Third party liability: $1M, Collision: 100 deductible				
14	Parking Fees	Monthly parking rate (not related to rental dwelling) during daytime (approximately 6:00 a.m. to 6:00 p.m., Monday to Friday), in an open lot in the downtown area		Prices must include all applicable taxes. Obtain prices from two different locations that are representative of downtown parking.				

	Transportation							
	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity priced	PRICES 1	2	3
	Local and Commuter Transportation							
15	City Bus and Subway Transportation	Bus, streetcar or subway fares within Metropolitan area		Obtain price for an adult passenger only (one ticket).				
16	Taxi	10 minute taxi fares within the metro area		Price should include taxes. Obtain price from one taxi company.				

ALCOHOL & TOBACCO

- There are 6 items.

INSTRUCTIONS FOR STORE SELECTIONS:

- For items 1 to 3, utilize a Liquor Commission (phone or in person).
- For items 4 to 6, utilize two different gas stations which are representative (Petro Canada, Shell, Esso).

IN STORE PRICING GUIDELINES:

- Price specified brand; if not available, select a comparable product and record on price sheet.
- Price specified quantity; if not available, price next closest and record on price sheet.

Alcohol & Tobacco

	PRODUCT	DESCRIPTION	QTY	INSTRUCTION	Quantity Priced	PRICES 1	2	3
	Alcohol & Tobacco Products							
1	Beer, Molson (Bottles)	Molson Beer with an alcohol content of 4.1 % to 5.5%	12 Bottles	Obtain price from a liquor commission or beer vendor.				
2	Red Wine, Mouton Cadet (Red)	Mouton Cadet purchased from a licensed wine dealer (liquor Commission) with an alcohol content of 10-14%.	750ml	Do not obtain price in a hotel. If 'Mouton Cadet' wine is not available, price similar quality wine.				
1	Liquor, Rye Whisky (Five Star)	Rye Whisky	26 oz	Do not obtain price in a hotel. If 'Five Star' is not available, price similar quality liquor.				
	Tobacco Products							
1	Cigarette Carton, Player's Light (Regular)	8 packs of Player's Light (Regular)	8 Pk	Obtain price from a gas station.				
1	Cigarette package, DuMaurier King Size	Package of 25 DuMaurier King Size	1.00 ea	Obtain price from a gas station.				
1	Embassy Tubes	200 tubes of Embassy	200 Tubes	Obtain price from a gas station.				

Appendix O: Tax Rates provided by Statistics Canada utilized for pricing exercise

TAX RATES AS OF June 16th, 1998

FOOD	GST	HST NFDL	PST PEI	HST NS	HST NB	PST QUE	PST ONT	PST MAN	PST SAS	PST ALTA	PST BC
1 PEANUTS SHELLED	7.0	15.0	10.0	15.0	15.0	7.5		7.0			
2 CHOCOLATE BAR	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		
(ALLOWANCES)			0.50				0.21		0.26		
3 SOFT DRINKS	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0			
(ALLOWANCES)			0.26				0.21				
HOUSEHOLD OPERATIONS											
1 LONG DIST INTRA	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
2 LONG DIST TRANS CAN	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
3 LONG DIST U S A	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
5 MIN HRLY WAGE ($)		4.75	4.75	5.15	5.50	6.45	6.85	5.40	5.05	5.00	7.00
6 SYN LAUNDRY DET	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
7 DISH. DETERGENT	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
8 SCOURING PAD	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
9 PAPER TOWELS	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
10 BATHROOM TISSUE	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
11 PLASTIC WRAP	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
12 DOG FOOD CANNED	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0			7.0
13 DOG FOOD DRY	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0			7.0
14 POTTED FLOWERS	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
15 NURSERY SHRUBS	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0			
HEALTH & PERSONAL CARE											
6 BANDAGES	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		
9 PERSONAL SOAP	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
10 TOILET SOAP	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
11 LIPSTICK	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
12 COLOGNE	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
13 TOOTHPASTE	7.0	15.0	10.0	15.0	15.0	7.5	8.0	7.0	7.0		7.0
14 DIAPERS (DISPOSABLES)	7.0	15.0	10.0	15.0	15.0	7.5		7.0			7.0
15 MENS HAIRCUTS	7.0	15.0		15.0	15.0	7.5					
16 WOMEN'S HAIRCUTS	7.0	15.0		15.0	15.0	7.5					

Appendix P: Modifications to Pricing Guide

CATEGORY	CHANGES/MODIFICATIONS
Food	
Page 3, Item #8 – Wieners	Added to description – 'all beef'
Page 5, Item #22 – Ice Cream	Added to description – '2 litre'
Page 7, Item #38 – Grapefruit Page 7, Item #40 - Cantaloupe Page 8, Item #50 – Broccoli	Problems with consistent quantities being priced; some priced individually, some by weight; conversions were necessary – refer to Methodology
Page 8, Item #57 – Cooking Oil or Salad Oil	Changed quantity to '1 litre'
Household Operations	
Page 12 – Telephone Calls	Presented problems – refer to Methodology; provided specific distances, within Province 165-200 miles or 264-320 kms; outside the Province within Canada 1700-2000 miles or 2720-3200 kms, outside of Canada (to the U.S.A.) 3400-3700 kms
Page 14, Item #14 – Potted Flowers	Not always available at grocery store, to price elsewhere.
Page 14, Item #16 - Nursery Shrubs, Mughu Pine	Added to description - '5 gallon or 6-12 inches height'.
Health & Personal Care	
Page 16, Item #3 – Diazepam	Changed description to '5 mg strength'
Page 16, Item #5 – Propanolol	Listed under 'Prescribed Medicines'
Page 17, Item #7 – Contact Lenses	Added to description – '6 disposable soft lenses (not 6 pairs), Acuvue, 2 week disposable vs daily disposable (should be able to wear for 2 weeks prior to disposing)'
Page 17, Item #8 – Oral Examination	Provided clarification – 'one regular oral examination with no problems on a regular client – not including an x-ray or cleaning'
Page 18, Item #12 – Cologne	Provided further detail – Chanel 5 eau de toilette, 50ml', price where ever available.

Appendix P: Modifications to Pricing Exercise

Problems and Resolutions by Category:

Food

Problem

Further detail was required for some items, refer to summary list for changes to guide. As well obvious mistakes were made in terms of pricing different quantities than specified and not recording it, resulting in numerous requests for clarification or re-pricing of items. Fruit and vegetables were particularly problematic, as the specified quantity of 1 kilogram was not followed consistently. Returned pricing guides included price per fruit, (ie. individual grapefruit, cantaloupe), carrots and broccoli by the bunch, or different weights than specified. Not only were there problems with consistency across municipalities, but often municipalities utilized a variation of weights and/or individual fruit prices for the three different prices obtained per item.

Solution

Since an average price per item was required, in situations where two of the three prices were the specified quantity, the average was determined based on two prices and the third price ignored. When there were less than two of the prices based on the specified quantity, we completed the necessary conversion and then obtained an average price, as long as the quantity was fairly close, which lessened the amount of requests for municipalities to go out again and seek out the exact quantity in a similar store. (The metric conversion table was utilized for the various conversions). Our experienced pricer was also utilized to determine approximate weights for specific fruits and vegetables that we utilized in order to determine a price when necessary. This latter method was an exception and only utilized as a last resort.

Approximate weights utilized:

Cantaloupe	950 g.
Pink grapefruit	300 to 320 g.
Cabbage	1200 g.
Carrot	450 g/bunch
Broccoli	900g/bunch

Household Operations

Problem

Other than the pricing of telephone calls, this category did not pose problems. There were however, many problems associated with the pricing of long distance phone calls within the Province, outside of the Province and outside of Canada. Long distance phone rates are in most part dependent on distance between cities, the time and day the call was made. In an attempt to resolve these issues more specific instructions were provided, for example the time and day to call was specified and municipalities were advised to select a location within a specific kilometer range (165 to 200 kms) within the province, 1700 to 2000 kms. Outside the province. Providing an estimated distance did not however, resolve the problem. Obtaining consistent rates was further compounded by the availability of a multitude of different savings plans offered by telephone companies. Given the time factor and the over-riding concern with consistency in pricing we opted for another solution.

Solution

One telephone company that had availability across the municipalities, AT& T was selected and their rates utilized (which were uniform across the country), with the exception of the different taxes. The appropriate taxes were then applied. This pricing was handled centrally.

Household Furnishings

Problem

Many difficulties were experienced ensuring consistency and availability with mattresses, microwave ovens and stainless cookware. The pricing revealed major discrepancies in pricing within municipalities, and across municipalities (range of $1,000 for mattresses). These discrepancies were not valid and therefore "doable" solutions were sought, and after various attempts to further clarify features, models, and discussions with retailers it was decided to have our pricer obtain prices from stores that represented large chains that had consistent pricing across the country and then apply the appropriate taxes.

Household Operations & Household Furnishings combined have a weight of 10.76. We priced 19 items for this category, of which four had to be re-priced centrally.

Recreation, Reading and Education

Problem

Since Statistics Canada removed all brand names and model specifications for all items, I attempted to provide specifications that could be consistently priced in all

municipalities. However, feedback received was that several of the items specified were either not available, or in some instances required further detail. Golf Clubs and exercise bikes were most problematic, cameras and cassette players were resolved once more specifics were provided.

Solution

For the camera, cassette player and television more specific detail was provided, obtaining specific make and model no's from retailers here in Winnipeg. (Refer to summary for details on modifications)

For exercise bikes, given the types and numerous features available for the same model number, and in the inconsistency in terms of availability, this item was omitted from our list. We then re-distributed the associated weight of this item across the other 19 items listed under recreation. This ensured the same weight for this category.

For golf clubs, there were also many different features, and problems with availability of same sets across municipalities. The prices obtained were so varied on a set of Wilson Clubs fitting the original description that upon some initial checking we determined that the same caliber of clubs were not being consistently priced. In speaking with retailers in Winnipeg, it was determined that the primary difference in pricing on the same set of clubs would be associated with taxes, size of store, or sales. Once again, an average price was obtained utilizing Winnipeg and then appropriate taxes were applied to determine a price for the various municipalities.

Education, posed another problem, and upon checking the huge variances between prices it was determined that we lacked consistency due to differences in semester systems at Universities and Colleges, as well instructions as to inclusiveness (student union fees, administrative fees) was not detailed enough.

Solution

Both, University and College tuitions were re-priced centrally, utilizing our experienced pricer to ensure the same courses were being priced. Consistency was ensured in terms of what was included in the price, for example, administrative fees, as well as duration of the course, and weights or credit hours.

Transportation

Problem

Items in this category were generally not problematic, with the exception of automobiles and insurance prices. The latter required a fair bit of clarification and re-confirming of prices. Automobile prices were even more difficult to ascertain due to the complexity of features, rebates, and the nature of the flexibility afforded sales staff to

make a sale. Some of the difficulties with ensuring consistency revolved around what was included, for example, discounts, air tax rates, administrative fees, and freight.

Solution

This item was re-priced centrally, by our experienced pricer, ensuring consistency in what was included in the price. Our pricer contacted two car retailers in each of the participating municipalities to ensure comparability.

Alcohol & Tobacco

This category was not problematic. There was a problem with availability in terms of the one item, "embassy tubes", which was omitted & its weight was re-distributed equally among the other items in this grouping.

Appendix Q: Pricing Exercise Cost Indexes Pre-Shelter Component

FCM Pricing Exercise Cost Indexes

	Municipality	Whole Population *Index (Weighted Cost)	Modest Income **Index
1	Edmonton, AB	0.933	0.940
2	Winnipeg, MB	0.977	0.967
3	Saskatoon	0.978	0.967
4	Burnaby, BC	0.980	0.980
5	Vancouver, BC	0.980	0.980
6	Calgary, AB	0.982	0.982
7	Regina, SK	0.997	0.985
8	Hamilton, ON	1.001	0.992
9	Halifax, NS	1.003	0.998
10	Ottawa, ON	1.005	1.000
11	London, ON	1.013	1.015
12	Windsor, ON	1.023	1.019
13	York, ON	1.026	1.031
14	Peel, ON	1.028	1.033
15	Waterloo, ON	1.033	1.044
16	Toronto, ON	1.040	1.068

* Utilized to calculate CAM 1

** Utilized to calculate CAL 2

Appendix R: Total Average Cost per Municipality pre- Shelter Component

FCM Pricing Exercise

Total Average Cost by Municipality

	Municipality	Food	Household Operations	Health & Personal Care	Recreation, Education & Reading	Alcohol & Tobacco	Transportation	Clothing	TOTAL
1	Edmonton, AB	$180.09	$2,112.37	$256.10	$7,930.09	503.15	$18,116.42	$1,099.00	$29,786.22
2	Winnipeg, MB	186.63	2,289.10	252.29	6,554.76	101.09	19,455.29	1,085.00	29,923.21
3	Burnaby, BC	224.44	2,335.01	234.41	6,056.33	96.88	20,009.85	1,085.00	30,031.92
3	Vancouver, BC	224.44	2,335.01	234.41	6,056.33	96.88	20,009.85	1,085.00	30,031.92
4	Saskatoon	177.57	2,143.17	224.92	7,429.87	115.30	19,095.16	1,080.00	30,275.99
6	Regina, SK	166.28	2,127.83	278.13	7,189.31	98.38	19,684.28	1,075.00	30,638.21
7	Calgary, AB	177.83	2,085.74	243.00	8,185.21	95.07	19,101.91	1,085.00	30,973.56
8	Hamilton, ON	178.93	2,201.11	318.03	7,262.23	79.45	19,779.85	1,075.00	30,894.60
9	Halifax, NS	183.35	2,236.71	286.13	7,547.59	80.01	19,748.18	1,085.00	31,172.87
10	Ottawa, ON	191.15	2,309.41	322.05	7,486.54	74.86	19,782.30	1,070.00	31,236.31
11	London, ON	188.42	2,171.01	249.17	7,876.51	76.09	20,064.03	1,085.00	31,711.33
12	Windsor, ON	191.73	2,361.11	240.81	7,981.72	78.45	19,992.65	1,085.00	31,927.47
13	York, ON	170.33	2,302.67	339.81	8,228.62	77.16	20,184.24	1,150.00	32,422.72
14	Peel, ON	172.58	2,269.39	257.30	8,398.45	80.39	20,182.50	1,090.00	32,480.61
15	Waterloo, ON	171.05	2,311.77	329.11	8,008.01	77.33	20,000.65	1,085.00	32,673.12
16	Toronto, ON	197.38	2,615.26	243.09	7,962.65	78.81	21,105.45	1,085.00	33,279.24
	Total	2903.64	36186.87	4390.76	120246.22	1406.20	316912.61	17393.00	499,458.30

Appendix S: Total Average Weighted Cost per Municipality pre- Shelter Component

FCM Pricing Exercise

199[illegible] Total Average Weighted Cost by Municipalities

	Municipality	Food	Household Operations	Health & Personal Care	Recreation, Education &	Houshold Furnishing	T.Port	Alcohol & Tobacco	Cost Index	TOTAL
1	Edmonton, AB	50.06	397.25	102.00	8,784.82	2271.25	105,695.38	57.61	0.933	121,683.92
2	Saskatoon	48.28	353.89	115.91	7,856.85	2419.83	111,027.59	86.27	0.977	127,443.71
3	Winnipeg, MB	51.53	497.80	131.75	8,941.80	2419.83	113,684.45	74.93	0.978	127,542.30
4	Burnaby, BC	62.72	537.79	116.58	8,410.98	2419.83	114,734.93	70.37	0.980	127,888.30
4	Vancouver	62.72	537.79	116.58	8,410.98	2419.83	114,734.93	70.37	0.980	127,888.30
6	Calgary, AB	48.59	440.81	95.13	8,055.55	2271.25	112,517.95	69.17	0.982	128,039.11
7	Regina, SK	51.49	384.46	136.69	7,670.30	2419.83	115,881.46	73.68	0.997	130,044.07
8	Hamilton, ON	49.56	436.90	138.83	7,923.72	2441.06	115,087.18	68.45	1.001	130,591.91
9	Halifax, NS	51.09	463.71	142.30	8,192.38	2441.06	114,868.86	69.93	1.003	130,805.22
10	Ottawa, ON	53.04	538.30	145.21	8,431.00	2441.06	115,832.86	69.04	1.005	131,093.45
11	Peel, ON	48.61	526.73	139.50	8,442.57	2441.06	116,350.30	67.33	1.011	132,116.67
12	London, ON	52.16	465.81	137.92	8,053.68	2441.06	117,780.09	66.60	1.023	133,434.73
13	Windsor, ON	52.60	526.67	71.57	8,131.68	2441.06	117,938.91	65.92	1.024	133,841.24
14	York, ON	49.41	498.28	145.70	8,550.98	2441.06	117,780.91	64.66	1.028	134,090.10
15	Waterloo, ON	48.89	524.81	145.52	8,330.40	2441.06	118,683.21	64.60	1.031	134,758.88
16	Toronto, ON	54.28	735.05	85.80	9,044.80	2441.06	119,666.71	62.92	1.040	135,702.75
	TOTAL	833.95	7,986.84	1,918.61	134,161.96	38,611.10	1,846,303.78	1,011.59	16.036	2,050,004.66