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Canadian Living Standards
1998 Report

by Christopher A. Sarlo



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About the author

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Preface

Michael Walker

One of the most well-worn phrases of social reformers and political pundits is that “the rich are getting richer and the poor are getting poorer.” In recent times, this has been joined by the equally depressing notion that our access to affluence is stagnating—that the honey pot is actually shrinking in size overall. A careful attempt to trace the origins of these ideas finds that they are based on speculation and erroneous impressions about the real world. An attempt to get to the facts is frustrated because, in spite of all of the data that we have for making such an assessment, there has been no systematic attempt to assemble comprehensive measures of how the way we live has changed over the decades.

Once again, as he did with his measures of poverty in Canada (Sarlo 1992, 1994, 1996), Professor Chris Sarlo has come to the rescue with a carefully compiled index of living standards. These measures, contained in this Critical Issues Bulletin, provide for the first time the ability to discern what has been happening over an extended period of time to the conditions of life that Canadians enjoy. Moreover, they give a basis for considering the comparative increase in affluence amongst those at the bottom and those at the top of the income distribution.

Rather than looking only at the measures of income, Sarlo has cast his net broadly and assembled an index that includes, in addition, consumption, access to household facilities, education, life expectancy, unemployment, wealth, and the fraction of the population that is not poor. Each of these elements measures a different aspect of the quality of life that Canadians enjoy. In combination, they reveal a

much more complex picture of what has been happening to our standard of living than is captured by income alone.

Depending upon which dimension is in focus, the gap between the rich and the poor has either not changed or has narrowed modestly. But, the overall standard of living of Canadians at all income levels has improved dramatically over the several decades that Sarlo examines. His careful analysis leaves very little room for the pessimistic outlook that often attends a discussion of growth in real income.

Along the way to his up-beat assessment, Sarlo provides a compendium of fascinating information. For example, he formulates a sensible and precise definition of who is poor and who is rich. He shows what the “income distribution” would look like if all citizens had exactly the same income over their lifetimes but there was uneven distribution of births over time. Astonishingly, this hypothetical equal-income society reveals a pattern where the bottom one-fifth of the population would get 9.2 percent of the income and the top one-fifth would get 31.6 percent!

If you have ever wondered about what is happening to our living standard, you will find *Canadian Living Standards: 1998 Report* fascinating. I heartily recommend it to you. Certainly, the Fraser Institute has been very happy to provide Professor Sarlo with the support to complete it, and is publishing it in the hope that it will stimulate a reconsideration of this important topic. It should be noted, however, that Professor Sarlo has worked independently and that the views he expresses may not be those of the members and the trustees of The Fraser Institute



Introduction

Canadians enjoy one of the highest living standards in the world. In strictly economic terms, Canada is one of only about a dozen countries with a national income per capita over \$20,000 (unless otherwise stated, all values in this report are in Canadian dollars). More broadly, because of the quality of life resulting from benefits such as educational opportunities and the health of our citizens as well as from material well-being, Canada has, since 1994, been ranked first among all nations by the United Nations in its human development index. Many international experts regard Canada as the best place to live.

It was not always this way. At the time of Confederation, Canada was a relatively underdeveloped and sparsely populated country with questionable prospects. In the 130 years following, however, there has been an extraordinary growth in living standards. In the past hundred years alone, real incomes have increased tenfold (Lipsey 1996: 5). All of the quantitative measures presented below attest to the strong economic performance of the Canadian economy over the decades and the resulting benefits to the vast majority of Canadians. But economic indicators alone cannot tell the full story of the improvement in living standards.

In 1996, the typical Canadian could afford not only many more goods and services than his counterpart two generations ago but—and this is a key point—a whole array of different and much better commodities. Let us start with the basics. In 1951, there were 3.4 million households in Canada, of which 74 percent had indoor running water, 64 percent had exclusive use of a flush toilet and 57 percent had exclusive use of a bath or shower. By 1996, Canada had 11.4 million households in which 99.8 percent contained full bathroom facilities. In 1951, only 50 percent of Canadian kitchens had an electric or gas range and only 47 percent had a mechanical refrigerator. Many households cooked food on a wood stove and stored food in an ice box. By 1996, 99.6 percent of households had an electric or gas oven and 99.6 percent had a refrigerator. But the modern kitchen typically has much more than this. By 1996, 57.1 percent had freezers, 85.3 percent had microwave ovens and 47.7 percent had dishwashers. These items have greatly

reduced the time and trouble of meal preparation and clean-up, and thereby increased the potential leisure time for most families (Statscan 1951: tables 98, 104; 1996a; 1997b).

To take advantage of the increased time for leisure, the typical household now has a wide variety of facilities that were not even in the imagination of folks in the 1950s. In 1996, 99 percent of households have radios (compared to 92 percent in 1951) but, in addition, 99 percent had at least one colour television, 74 percent had cable television service, 84 percent had a video cassette recorder, 53 percent had compact-disc players and 32 percent had home computers. None of these latter facilities were even available in 1951 (Statscan 1951: tables 98, 104; 1996a; 1997b). I hasten to add that the fruits of modernity have not been universally welcomed; more gadgets and facilities do not guarantee happiness to the purchaser. Nevertheless, Canadians have enthusiastically embraced these items, regard them as beneficial and enjoyable and continue to look forward to new home-entertainment technologies on the horizon.

Households were more crowded 40 years ago. In 1951, the average household contained 5.3 rooms and 4.0 persons. In 1996, there were 5.9 rooms per household and only 2.6 persons, on average. Only 59 percent of households had a telephone and only 42 percent an automobile in 1951 compared with 99 percent and 74 percent respectively in 1996 (Statscan 1951: tables 98, 104; 1996a; 1997b). People not only worked harder and longer to cook and clean in the 1950s but, for those in the labour force the standard work week is now about 13 percent shorter than in 1951 (Gundersen and Riddell 1993). Workers not only work fewer hours than their counterparts 4 decades ago but have more benefits, more holiday time, safer working conditions and are much more likely to have a pension plan funded by the employer. People now live healthier and longer than 40 years ago. Life expectancy has increased by more than 10 years since the 1950s (Statscan n.d.1 [Cat No. 82–221–XDE]). And, the average wage earner now earns almost three times, in real dollars, what the average worker earned in 1951.¹

What has caused this dramatic improvement in living standards? In a recent essay, Richard Lipsey (1996), one of

- Canada's foremost economic thinkers, argues that technological improvements essentially explain the impressive economic growth in Canada and other countries. The process of saving, investment, and capital accumulation inherent in the neoclassical model does not begin to explain the sort of living standard that Canadians enjoy today. It has been technological innovation, in Lipsey's view, that is primarily responsible. New technologies—for example the use of electricity as a power source replacing steam and, most recently, computerization of almost every aspect of modern life—fundamentally change the nature of the production process, use fewer resources than before, and permit the fairly inexpensive mass production of new commodities. New technologies, along with training and education, make workers more productive and allow real wages to rise.

Fundamental technological change has a pervasive impact on the economy and on society. Computers, for example, have not only changed the method of production and the range of useful commodities available but have already transformed the way we communicate with each other, the way we are being entertained and the way we learn. But adaptation to new technologies is not frictionless. The more radical the technological change, the greater will be the adjustment to it. Change upsets normal habits and patterns. More ominously, it can affect workers and their families adversely by making certain skills obsolete. Some of the long-term rise in unemployment since the mid-1970s can be attributed to the deep structural adjustment following upon the adoption of the new information and communication technologies.

Lipsey argues persuasively that technological improvements and rising living standards are good things but do not happen automatically. There are a number of necessary conditions that need to be in place for economic growth to occur. He mentions as critical ingredients the freedom to innovate, decision-making about the private use of resources through markets rather than through political channels, a system of rewards and penalties, the rule of law, and free scientific enquiry as critical ingredients. In summary, and by way of advice to lesser developed countries, he emphasizes the importance of “an open society with freedom of the market to operate in a relatively unrestricted way . . .” (Lipsey 1996: 42). He warns us against neo-Luddites who, under the banner of environmentalism, religion, or political correctness, are resolutely anti-technology and blindly opposed to market-based solutions. The simple fact is that, wittingly or not, they would condemn us to lower standards of living. At the same time, Lipsey points out the need to de-

sign schemes that would take the sting out of poverty and displacement, whether brought on by technological change or not, without destroying self reliance.

There are many enduring false ideas about technological change. Let us consider a few.

False idea 1: new technologies destroy jobs. While new technologies do replace old, less efficient ways of doing things, they also tend to create far more jobs than are lost. This happens partly because of the “spin-off” opportunities that inevitably accompany new technology but mainly because new technology, by lowering production costs, lowers prices and offers consumers more purchasing power. This extra demand creates jobs.

False idea 2: new technology results in more poverty. History suggests just the opposite. Revolutionary technological change in this century has improved the living standards of all citizens, including the poor. There is now in Canada much less poverty (in the sense of deprivation of basic needs) than there was even 50 years ago. And, the fastest improvement in the material well-being of those who were poorest occurred prior to the big expansion in social programs in the 1970s.

This is not surprising. Without denying the inevitable displacement that often accompanies rapid change, technological innovation invigorates an economy, increases economic growth and, ultimately provides more jobs than are lost. Earnings from employment offer best way for the poor to improve their lot. The impressive record of impoverished immigrants to Canada in this century is a prime example of this process.

False idea 3: new technology means greater inequalities. Technological innovation is the engine of economic growth. The benefits of economic growth are rarely evenly distributed. In the first instance, free markets tend to reward intelligence, risk-taking, and hard work. But those qualities are not equally distributed in the population. So, initially the able and ambitious benefit more from rapid economic growth. Over time, however, the benefits of job creation, better infrastructure, and more comprehensive insurance schemes become widely dispersed. This diffusion has the potential to benefit the poor and the less able differentially. The evidence presented below supports this conjecture. Thus, once all things are considered, economic growth driven by technology does not increase inequality. All of us, poor and well-off alike, stand on the shoulders of the creative geniuses and entrepreneurs of the past.

Productivity, often measured as output per worker, plays an important role in the determination of living standards. Improved technologies permit workers to be more productive and greater productivity allows real wages to rise which, in turn, permits higher levels of consumption. *Performance and Potential*, a recent report from the Conference Board of Canada (1996), reveals that productivity in Canada rose strongly over the post-war period to about the mid-1970s and has grown very slowly since then. Thus, despite massive structural change and the widespread adoption of new technologies throughout the economy, there has been little evident payoff in terms of productivity. This so-called “productivity paradox” could be due to the inability of current statistical measures to capture the fundamental changes, especially in the area of services or it could be that the payoff is still to come. Lipsey favours the latter explanation. In any case, the apparent slowdown in productivity over the past 20 years or so may account for some of the recent slowdown in key indicators of the standard of living.

Purpose and plan of the report

This report attempts to answer the questions: What has happened to Canadian living standards in recent decades? Are we better off than we used to be? Are the poor getting poorer? What has happened to the middle class?

A fairly large body of statistical data bearing on these questions is available but statistics alone never tell the full story. I will provide some interpretation, commentary, and critical analysis to assist the reader in making informed judgments. However, since the intent is to relay this important information to a broad, lay audience, the report is largely free of technical jargon. This is, mainly, a descriptive report. It pulls together information about living standards from a wide variety of sources and presents it in a clear, concise fashion. The tables and graphs show key relationships over a longer period of time than is usually presented in reports of this type. As well, many of the graphs are new, showing relationships and trends that have not been presented elsewhere. For the interested reader, the data appendix at the back of this report has tables with complete and up-to-date values for many important variables. It is my hope that this report will serve as a useful resource to anyone working in the field of social and economic policy.

The report begins with some important definitions and a brief discussion of measures and indicators. Second, in the section The Big Picture the key measures relating to

Canadian living standards are presented and discussed. Third, much more detail is provided on a variety of aspects of how we live. Finally, an attempt is made to construct an index intended to capture the essential components of the standard of living.

I wish to acknowledge the cooperation and assistance of a variety of officials and researchers at Statistics Canada. In many cases, people went out of their way to provide me with data on a timely basis. As well, I am grateful to the “movers” behind the Data Liberation Initiative. This program has made Statistics Canada databases more easily available to researchers and this report has greatly benefited from that initiative. I would urge Statistics Canada to extend the program to older databases as soon as possible.

I am particularly indebted to Andre Roy who developed a computer program to generate income distributions and Gini coefficients especially for this project. As well, I wish to thank Aaron Bertrand and Krista Lariviere for diligent research assistance.

Defining “standard of living”

The term “standard of living” used in this report refers to the material well-being of individuals and families, to the extent that that can be determined. We use quantifiable measures of economic well-being such as income, consumption, assets, and facilities to gauge the standard of living. While this approach is common in economics, it nevertheless limits the range of factors under consideration. It ignores, quite deliberately, qualitative aspects of the standard of living.

This approach has come under increasing fire in recent years; geneticist and environmental activist David Suzuki, for example, has been very critical of quantitative economic measures and the economics profession for their apparent ignorance of anything beyond gross domestic product (GDP).² He has argued that so-called economic growth is not progress at all if it comes at the expense of environmental deterioration. Suzuki is not alone in calling for more broadly based measures of economic progress.

Over the years, a variety of attempts have been made to capture societal well-being with a broader measure than GDP per capita. The latest effort comes from Redefining Progress. This organization, based in San Francisco, has developed a Genuine Progress Indicator (GPI) that incorporates numerous factors such as crime and divorce rates, pollution and other environmental damage, leisure time, the value of household and volunteer services, life span of consumer



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durables, and income inequality as well as the standard economic measures. Tracking the GPI for the United States since 1950, the group found that after the mid-1970s, GPI per capita declined, while GDP per capita continued to increase. The major problem with the GPI is that all factors, including crime, divorce, the value of leisure and volunteer work are combined (somehow) into a single monetary aggregate. Nevertheless, the concept is an interesting one.

The *Report on Canadian Living Standards* is far less ambitious but the problem of finding an adequate indicator of the standard of living persists. Typically, measures of improvements in the living standard use the “per-capita” approach. For a whole society, we use GDP per capita and, at the micro level, we use income per household member. As Ringen (1991) has pointed out, this approach makes sense intuitively: a given income can buy a given consumption and this consumption must be divided between the individuals it supports. However, this is clearly not sufficient. What it ignores chiefly is economies of scale: larger families involve some efficiencies in the production and consumption of well-being within the household. It is clear, for example, that a single person living on \$10,000 has a far lower living standard than each member of a 5-person family with a total family income of \$50,000.

This issue becomes important if, over time, there are demographic changes in fertility and marital stability that affect the average size of the household. Ringen (1996), for example, using equivalent incomes after accounting for household economies, found that per-capita measures have exaggerated the rate of growth in well-being in Britain between 1976 and 1986 because of the trend to smaller households. The degree of overstatement was found to be about 10 percent or about 1 percent per year. Ringen suggests that the differential would be much greater in the comparison between societies with much different household structures—between industrial and developing nations, for example.

Another problem with per-capita measures is that they implicitly assume that everyone in a given household enjoys an equal standard of living. This is not likely to be the case and, indeed, the differential contributions and consumptions within the family may be quite large. Researchers have found no easy way to adjust for this particular inadequacy. There are additional problems with income and consumption data (per capita or not), which we discuss below. Given the data currently available, it is impossible to correct for most of the difficulties. A partial adjustment, correcting for one problem while leaving others uncorrected would not be a desirable solution, especially since some consider-

ations tend to counteract others. The preferred option, in my view, is to broaden the perspective by using a wider variety of variables relating to well-being than is usually presented in examinations of living standards. Included in the basket of indicators will be the familiar per-capita measures, unadjusted.

Quality of life versus quantity of life

Economists are often criticized for their apparent love affair with facts and data. It seems, to many non-economists, that we shine our floodlights on considerations that can be carefully quantified to the exclusion of everything else. To some, economists are those who “know the price of everything and the value of nothing.”³ I disagree. In my experience, economists typically develop quite elaborate and comprehensive theories. Those engaged in either empirical or applied researchers usually take great pains to point out any omitted but important considerations that could not be quantified or had no valid proxy.

Life and the standard of living are, of course, far more than material “things.” Much of what truly enriches our lives is not measurable and has no monetary value. Friendship, political freedom, appreciation of the beauty of nature, the quality of one’s imagination, the quality of one’s environment, the delight of discovery and spirituality—in the broadest sense of that term—are examples of important yet elusive considerations affecting well-being. And these considerations may be more important (far more, indeed) than purely material circumstances for all save the impoverished. It is well recognized by economists that our overall well-being is affected by *both* economic and non-economic considerations. The problem is that many of these non-economic factors are very difficult or impossible to measure. In most cases, we simply have no reliable data to work with.

In this report, I have deliberately narrowed the focus of discussion to *material* living standards. The one exception is life expectancy. This variable captures, I would argue, in one number all of the various influences on health and environment that ought to be part of any discussion of living standards.

Statistics Canada

Since World War II, Statistics Canada has increasingly been providing Canadians with more and better information about how we live. For example, in 1948, Statistics Canada conducted the first national survey of family expenditures

for use in the construction of the consumer price index. It has continued its family-expenditure survey on an occasional basis to the present. In the 1951 census, Statistics Canada began collecting fairly detailed data on earnings and subsequently expanded their questionnaire to cover all forms of income. The census has also provided interesting information about the facilities, the number of rooms, and the condition of Canadian households since 1951. Since the late 1960s at the latest, Statistics Canada has conducted regular (and now annual) surveys of household facilities. And, beginning in 1971, Statistics Canada has published the results of their annual income survey (Survey of Consumer Finances) conducted in conjunction with the broader labour-force survey. Of course, there are a wide variety of other surveys, statistics, and special reports relevant to non-economic aspects of the standard of living—everything from single-parent families to the use of leisure time. Data drawn from the wealth of statistical sources of Statistics Canada form the basis of the evidence used in this report.

Choosing the right indicator

Finding a reliable indicator of material well-being is not as easy as we might think. Some measure of assets or wealth would clearly be desirable. However, there is little systematic data on the wealth of Canadians and what little there is from reputable sources such as Statistics Canada is dated. As a substitute, indicators of the trends in ownership of particular assets and facilities, information that is more readily available, are clearly useful. Measures of income (real and nominal, pre-tax and after-tax, and so on) have tended to be the choice of economists examining trends in living standards. However, income as an indicator of material well-being is badly flawed and, while it cannot be discarded and is used extensively in this report, it is important for readers to be clear on the problems with income.

Income

The income data used in this report comes either from the census or from Statistics Canada's annual income survey (Survey of Consumer Finances). In each case, respondents are contacted by phone or in person and asked to provide a detailed breakdown of their income from various sources during the previous year.

Ideally, a person's income should indicate command over goods and services in the marketplace since income represents portable purchasing power that can be used to buy

the commodities that generate "utility" or well-being for the household. Thus, the higher one's income, the greater the implied material well-being of the members of the household.

But the income reported to Statistics Canada is different, sometimes substantially different, from the household's "true" command over goods and services. This discrepancy is due to a number of factors:

Sloppiness or laziness on the part of the respondent

Some respondents regard the Statistics Canada survey as an imposition and treat it in a cavalier fashion. As a consequence, they may not examine their personal and income tax records to ensure accuracy but may instead give rough estimates or respond casually. Interviewers are not supposed to question responses even if they suspect the values are inaccurate. It is the case that all responses are edited and some adjustments are made where other information makes it clear that the original responses were not correct.

Non-response

The annual income survey is a carefully constructed random sample of Canadian households designed to represent all Canadians. However, about 20 percent of those chosen to be in the sample do not respond fully or do not respond at all. While Statistics Canada uses sophisticated techniques to impute information to these households so that they can be included, this is a large gap to fill. The accuracy of the imputation is considerably reduced if the households not responding are not themselves randomly distributed.

Unreported and under-reported incomes

Certain types of income are routinely under-reported. Statistics Canada reconciliation checks reveal, for example, that unemployment insurance payments and welfare benefits are about 20 percent and 40 percent under-reported, respectively (Wolfson and Evans 1990: 26). This is a particularly significant omission for the poor since about half of low-income households have one of these two as their major source of income. Wages and salaries from employment, on the other hand, are almost fully reported.

Smith (1996) of Statistics Canada notes that a growing underground economy, driven largely by tax evasion, is also responsible for some of the unreported income. Substantial under-reporting in the construction and renovation industries, among businesses selling used vehicles and appliances, and certain small business retailers (especially in the area of personal services) likely totals about \$10 billion annually. As well, under-reported tips in the restaurant,



- alcoholic-beverage, and taxicab industries amounts to several billion dollars. Finally, the incomes that are earned from a variety of illegal activities such as prostitution, gambling, drug dealing, tobacco and alcohol smuggling and petty theft go almost entirely unreported. In all cases, of course, these incomes contribute to the well-being of their recipients even though they are not reported.

In-kind income

Many Canadians receive a variety of gifts, free benefits, and services that contribute to their material well-being but do not cost them anything. Included here would be such things as subsidized rents; monetary and non-monetary gifts from family, relatives, friends, and charitable organizations; and medical, dental, and drug benefits related to certain social programs. Because recipients of “in-kind” income do not have to pay for items that most others do, their reported income further understates their true living standard.

Business losses

Readers may not be surprised that many Canadians have very low incomes. What may be surprising is the large numbers of households with *negative* income. In 1994, for example there were 12,000 households with reported incomes less than zero. Virtually all of them had declared large business losses against other income sources. Such declarations come about for tax purposes and do not accurately reflect the true standard of living of these households.

Student loans

Loans of any kind, including student loans, are quite rightly not counted as income. However, loans are a way of transferring future income into the present and do add to the household’s standard of living in the current period. For the most households, excluding loans as a source of “income” is a relatively insignificant omission. Not so with student loans. This is because student loans are a big part of the student’s overall resources. During the 1980s, for example, student loans were about 20 percent of total student resources (Statscan n.d.1 [Cat. No. 52–179]). Due to higher real tuition fees and lower student incomes in the 1990s, student loans are now likely to be an even greater portion of resources. By not including student loans, the standard of living of independent students appears much lower than it in fact is.

Miscellaneous considerations

There are a variety of other circumstances in which reported income will belie the household’s true standard of living.

People in religious orders, who often live under a vow of poverty, would be one example. There are, in addition, several thousand people (Old-order Mennonites and Hutterites, for example) who, following the regime of their religion, willingly live ascetic but quite fulfilling life-styles. They eschew most aspects of modernity and have market incomes that are very low or zero but which again fail to gauge their true standard of living accurately. And, there are a small but apparently growing number of families that have decided to retreat from urban life and live a far simpler, poorer but more satisfying life-style on farms and in small communities.

A quite different circumstance in which reported incomes will understate the household’s true living standard is the case of part-year families. For a variety of reasons (marital breakup, immigration, de-institutionalization, etc.), a household head, asked to report on income for the previous year, will only have income for a portion of the year. For example, suppose an immigrant family came to Canada in the fall of 1996. Their “Canadian” income for 1996 might only be \$10,000, which reflects a very low standard of living if viewed as a total annual income. Their reported income belies their *rate of income* and therefore their true living standard.

Since the Statistics Canada income surveys omit certain geographical areas and some categories of persons, this may introduce additional bias into the reported incomes. For example, residents of the Yukon and Northwest Territories are not included in the survey. However, with a combined population of about 100,000 (roughly one-third of one percent of Canada’s population) and average incomes at or above the Canadian average, this omission is unlikely to introduce significant bias either way. The exclusion, however, of households located on Indian reserves is likely to be important. While there is no precise determination of the number of people living on Indian reserves, largely because most bands decline to participate in the census and similar surveys, estimates by Statistics Canada and the Department of Indian Affairs suggest that there are at least 200,000 people living on those lands (Sarlo 1996: 154). More importantly, various reports inform us that people living on reserves are much less well off in material terms than Canadians in general. So, even though the reserve population is probably less than 1 percent of the overall population of Canada, living standards are somewhat overstated and poverty somewhat understated by this particular omission.

In sum, it is reasonable to assume that the combined effect of under-reported incomes and the underground economy, income-in-kind, omitted resources such as stu-

dent loans, business loss tax write-offs, part-year families, voluntary austerity, and native reservations results in Canadian living standards being understated by reported incomes. Further, it is my view that reported incomes are much less reliable a gauge of living standards at low incomes than at high incomes, mainly due to the underground economy and the under-reporting of government transfers. Finally, because the underground economy appears to be growing and because social assistance and unemployment insurance caseloads are now much higher (proportionately) than in the past, it may be that the data on income is less reliable than ever.

Despite the well known limitations of reported income, it is widely used in studies examining poverty, inequality, and material well-being. And it will be used extensively in this study, with some reluctance. The reader is urged to recall the disadvantages of the income as an indicator and interpret results with appropriate caution. As will be seen, income can be a useful and interesting guide and should not be entirely discarded.

Consumption

Information about the consumption levels of households is an increasingly attractive alternative to income as an indicator of economic well-being. This information is also increasingly available to researchers as national surveys of family expenditure are now conducted more frequently and more broadly than in past decades and published as microdata files.

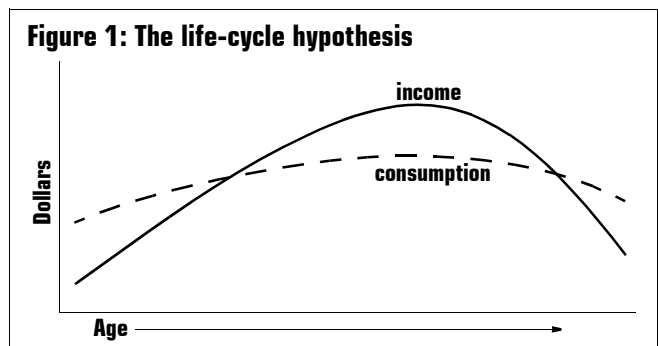
The main advantage of consumption information is that it is much less likely to be under-reported because the incentive of tax evasion is absent. It also avoids some of the understatement of living standards due to the exclusion of money gifts. We presumably get a more accurate picture of the material well-being of people with business losses and some students if we use consumption. On the other hand, data on family expenditure does not deal with some problems, such as in-kind gifts, bias due to inaccurate responses or non-response or voluntary austerity any better than income data. However, unlike the income survey, the family expenditure data excludes part-year families and students who live with their families for part of the year.

So, consumption data is not perfect but it will give us a better indication in many respects of the household’s true standard of living. Consumption, after all, is a step closer than income to what really interests us—utility or well-being. Moreover, the whole life-cycle analysis of income and consumption persuades us that consumption is a more reliable gauge of economic well-being than income.

The life-cycle hypothesis

Economists assume that households make decisions rationally and that they operate with a view to a much longer time horizon than just the current period. According to this theory, household heads formulate some notion of their “permanent” income (roughly, an expected lifetime average) and gear their consumption to that permanent income rather than to their current income only. As income varies from time to time, the household’s consumption will remain relatively stable because transitory income changes have only a small impact on permanent income. Households will adjust their estimate of permanent income (and thus consumption) according to new information as long as it impinges upon expected lifetime income. Thus, according to this theory, we might expect newer households to spend more than their income for a while as they gear their consumption to what they expect will be a higher average income. We would expect, as well, that families in their peak earning years—usually when the wage-earners are in their 40s and 50s—would be net savers as they will already have paid for most of their larger durable goods and are preparing for the time after retirement when their earnings will fall, probably to zero. So, in this phase, the theory would predict that income would regularly exceed consumption. Figure 1 depicts the typical lifetime pattern of income and consumption that the life-cycle hypothesis predicts.

The empirical evidence strongly supports the life-cycle hypothesis. Most people apparently do gear their consumption to a notion of permanent rather than current income. Consequently, observed consumption is much more stable than observed current income. In some years, a family may have exceptionally good income, due, say, to modest lottery winnings, an inheritance, or a special bonus at work, and, in other years, may have exceptionally poor income due to layoff from work or ill health. Throughout, however, consumption patterns remain fairly constant and are a better reflection of the material living standard of the family than the ups and downs of income.



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The fiction of accurate measurement

An additional problem with the measurement of living standards and comparisons over time is that, using the current measurement methodologies, we cannot account in full for fundamental changes in the quality of existing products and the introduction of new products. Real output or real incomes are determined by “deflating” nominal (money) output or income by an appropriate price index. However, these price indexes or “deflators” track the changes in the prices of a fairly constant basket of products. If the quality of the products are improving and if new products are constantly being used in society, the price index may miss much of the action. As *The Economist* (1996) points out, “The measurement problem becomes more acute as output shifts to goods and services where quality is an important factor.” The areas of medical services, information technologies, and financial services are good examples of this. While Statistics Canada does attempt to account for quality changes and new products in their calculations, they acknowledge that the price adjustments are complex and sometimes impossible to solve in a fully satisfactory manner. Because of this, current statistical measurement may understate improvements in the standard of living.

In a recent paper, William Nordhaus (1994) uses the example of lighting to illustrate the nature and extent of the understatement of true growth in the economy. He notes that improvements in the product we might refer to as “illumination” happened very infrequently and were relatively

minor over the course of human history until about 200 years ago. From about 2000 BC, when controlled wood fires and shallow, bowl-like, fat-burning Paleolithic lamps were replaced by candles and closed, pottery and bronze lamps burning oil from olives and other plants, there was little advance in lighting technology until the Industrial Revolution. Rapid improvement came in the early nineteenth century with the use of coal gas and kerosine (distilled from petroleum) for illumination of streets and homes and, in the early twentieth century, with the introduction of the electric light bulb using a tungsten filament. The traditional indexes of light (based on the prices of given products such as lamps and fuel) shows that the real cost of light has increased about four-fold since 1800. The true cost of lighting, however, measured by examining the labour-time needed to buy a given unit of illumination, has declined precipitously. Nordhaus concludes that significant “jumps” in technology are simply missed by the standard indexes with the result that “traditional price indexes dramatically overstate the true increase in prices . . .” (Nordhaus 1994: 29). This, in turn, means that the true improvement in the standard of living is significantly underestimated.

Nordhaus is somewhat pessimistic about the possibility of ever getting truly accurate picture of real output. He says: “a complete reckoning of the impact of new and improved consumer goods on our living standards is at best an epic task and at worst infeasible” (Nordhaus 1994: 2). I shall return to this issue at the end of this report in a discussion of the possibility of an index of living standards.

The big picture

In this section, some well-known indicators are used to show an overview of the trends in Canadian living standards, emphasizing what has happened in general and leaving the specifics and details for later. The major indicators of material living standards tell a consistent story for the most part. Canadians have enjoyed dramatic improvements in their standard of living during this century.

Gross domestic product (GDP) per capita

Easily the most popular indicator of average economic well-being is gross domestic product (GDP) per capita. The United Nations and the World Bank use this measure extensively to compare average living standards in various countries. GDP represents the production of a nation as far as that can be measured. It excludes many things of value such as the services of stay-at-home mothers, barter transactions, and unpaid volunteer work because those activities are hidden or difficult to determine. As well, the GDP per capita measure tells us nothing about the distribution of that product among the people and households of the nation. Nevertheless, it is a useful indicator of average living standards, especially when it is tracked over time.

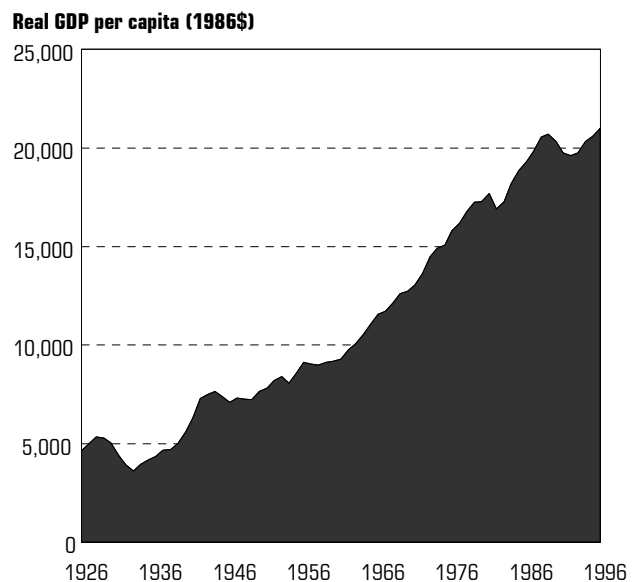
Figure 2 tells a story of impressive progress in Canada over the past 70 years. Real output, on a per-person basis, has increased fourfold since the 1920s. The average Canadian has benefited from strong economic growth over this period and Canada is now among the top dozen countries in the world in terms of GDP per capita. The graph clearly shows a cyclical pattern but what is most noteworthy is the strong upward trend.

Economic growth on a per-person basis has not been entirely even. In the 1940s, it grew by an average of 4 percent. That value, however is highly misleading. Double digit growth in the early 1940s due to the war effort was considerably offset by relatively slow growth during the mid- and late 1940s. In the 1950s, 1960s, and 1970s, real growth per person was around 3 percent. However, the 1980s saw much lower average growth, due in large part to a major recession

in 1982. Thus far in the 1990s, the annual growth in GDP per capita has averaged only 0.23 percent. The mid-1970s appears to be a more significant transition point for real per capita growth. From 1950 to 1974, the average change was 2.97 percent. After 1974, GDP per capita grew by about half that rate at 1.59 percent.

Economists point to two key factors to help explain the sharp change in economic performance after the mid-1970s. The first is the structural change in the economy; the second is the impact on the economy of the growth of the welfare state. Briefly, the rise in a variety of taxes and the increase in some social benefits (chiefly social assistance and unemployment insurance) have adversely affected investment, entrepreneurship, and the incentive to work. The slowing down of the growth of output per person is a concern but should not obscure the remarkable improvement in the living standards of Canadians that has been achieved during this century.

Figure 2: GDP per capita from 1926–1996



Source: Statistics Canada, Canadian Economic Observer, Historical Statistical Supplement, Cat. No. 11-210-XPB, 1995/96, table 6.

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Having more output per capita does not tell the complete story. Most Canadians can afford and use items in their everyday lives that their counterparts a couple of generations ago could not have imagined. In the past 50 years, labour-saving developments such as the dishwasher, the clothes-dryer, the freezer, prepared foods, disposable diapers, and automatic home-heating systems have dramatically changed the nature of housework and the time devoted to it. The world of paid work is also much different. New technologies have vastly reduced the number of dangerous and unpleasant jobs. Workers now have more benefits (such as company pensions and time off for vacations), more input into the workplace, and greater flexibility regarding some aspects of their work than ever before.

Longevity

This is a very important indicator. Life expectancy at birth captures, in one measure, all of the efforts to improve the health of Canadians. Figure 3 displays the life expectancy at birth of Canadians over the period from 1921 to 1991.

We are living longer. Longevity has increased by 31 percent over the past 70 years. However, the trend in longevity alone is somewhat misleading. We know that dramatic improvements in medical science now extend life for some but in an unhealthy or severely disabled state. While some research is ongoing into the construction of a “healthy life-expectancy” time series by Cynthia Ramsay (see McArthur, Ramsay, and Walker 1997) and also at Statistics Canada, at this point there exists no reliable substitute for the unadjusted life expectancy at birth. Nevertheless, this indicator is informative! It is the outcome of the myriad of

influences (the quality of the environment, the level of crime, the quality of parenting, the quality of our knowledge about disease and dysfunction, and the level of material well-being) that affect physical and mental health.

Literacy and education

We are better educated. Dramatic improvements in formal schooling have occurred in recent decades for which comparative data are available. In the early 1990s, only 14 percent of the adult population have less than a grade-9 education compared with 43 percent in the early 1960s. A university education is no longer the preserve of the wealthy and is now a reasonable expectation of any able scholar, regardless of income.

Higher formal education levels are related to a whole range of benefits to the individual and to society. The economy generally becomes more competitive and more productive as workers acquire more formal education. For participants, it also means an enhanced capacity to understand the world and to compete for a better class of employment opportunities. Higher levels of education have the potential for enriching the quality of life and, in the broadest sense, the standard of living. More formal education is certainly no guarantee of personal and financial success but it clearly improves the odds. Figure 4 shows the trend in formal education levels in Canada since the 1961 census.

Poverty

There is perhaps no better indicator of rising living standards than the poverty rate. After all, as living standards rise due to economic growth, more and more households will be moving above the poverty threshold. Of course, economic growth does not benefit all equally. It is likely to differentially favour the talented, the risk-takers, the mobile, and the ambitious. Nevertheless, most economists argue that a growing economy, by providing more jobs and improving real wages, will reduce poverty.

Using income as an indicator and a “basic-needs” notion of poverty (more details on this will be given in the next section), figure 5 shows that there has been a remarkable decline in the rate of poverty during the period since World War II. In 1951, just over one-third of the Canadian population lived in households with reported incomes less than the basic-needs poverty line. Now, just under 5 percent are

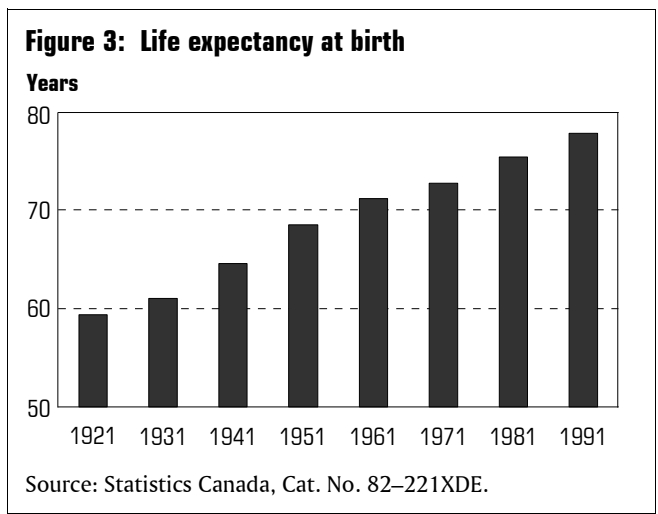
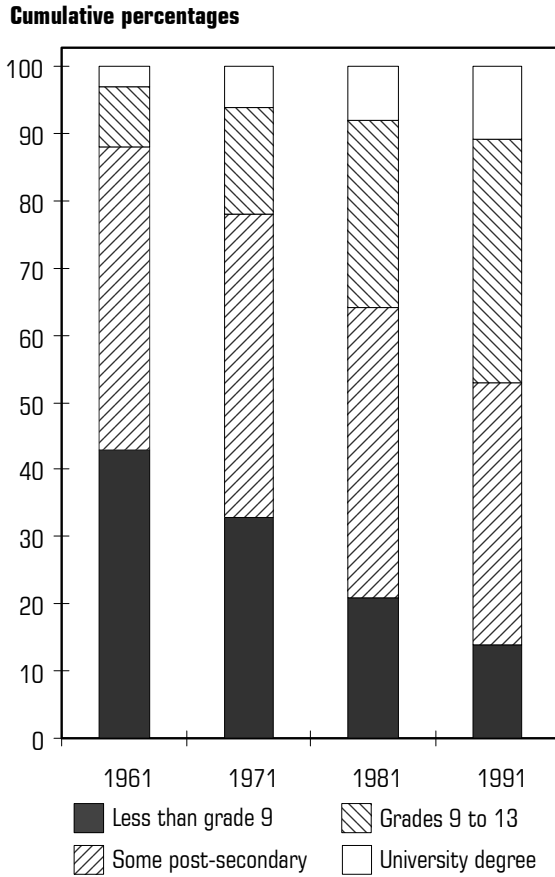


Figure 4: Levels of formal schooling

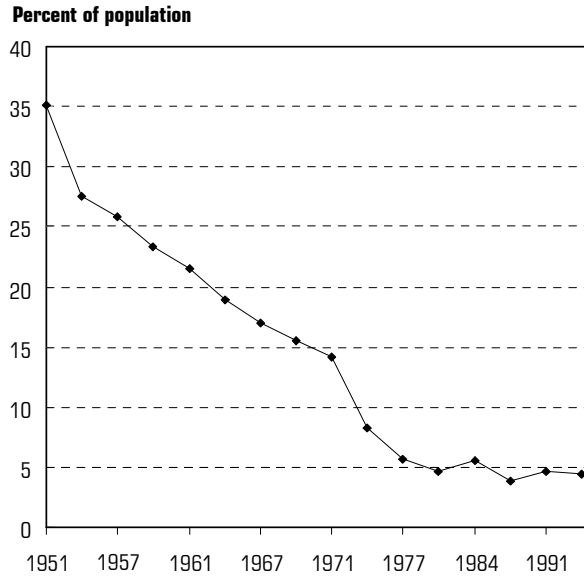


Source: Statistics Canada, *Schooling in Canada*, Cat. No. 99-938, and *Census of Canada, 1991*, Cat. No. 93-328.

poor. Almost all of the decline occurred prior to the mid-1970s so this period of declining poverty corresponds to the period of rapid economic growth that took place in Canada between World War II and the mid-1970s. Slower economic growth after the mid-1970s and more pervasive structural change due to new technologies explains, to some extent, the more modest progress against poverty in recent years, but it does not tell us the full story.

Rapid economic growth and rising real wages helps most the able, the eager, the self-assured, and the optimistic. Most of the poor in the 1950s and 1960s probably had one or more of these characteristics. In a sense, then, economic growth has done a superb job of combatting the “easy” part of the poverty problem. We are now wrestling with the more difficult (but much smaller) part of the problem and one that economic growth alone is not equipped to tackle. Alleviating the poverty of those who are dependent or depressed, who may lack self-esteem, or who may not

Figure 5: Incidence of poverty, 1951–1994



Sources: poverty lines: calculations by author; see Sarlo 1996; pre-1973 data: Statistics Canada, Cat. No. 13-207, various issues; 1973–1994 data: Statistics Canada, Microdata File of Economic Families, various.
 Note: pre-1973 estimates are based on simple linear interpolation of published range data.

have a positive attitude about work and personal responsibility is much more difficult. It will require a different and, one would expect, more personal approach.

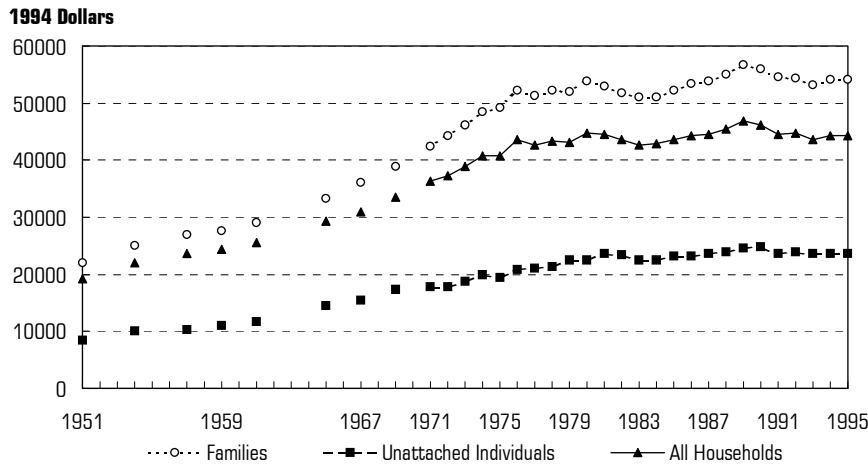
The estimate of basic-needs poverty in figure 5 uses income as an indicator. Income is a problematic indicator for a variety of reasons, the net effect of which is likely to cause an overstatement of the incidence of poverty. If we use consumption rather than income to measure poverty, the resulting estimate is substantially lower. For example, using the microdata file for 1992 Family Expenditure, I have determined that about one-half million persons or 2 percent of the population live in households with reported consumption below the basic-needs poverty line. Correcting for omissions and exclusions from the Statistics Canada family expenditure survey would add at least another 100,000 persons to the ranks of poor Canadians.

Real income

Real average income is one of the most common indicators of economic well-being. Real income is simply money (or nominal) income adjusted for the change in the general price

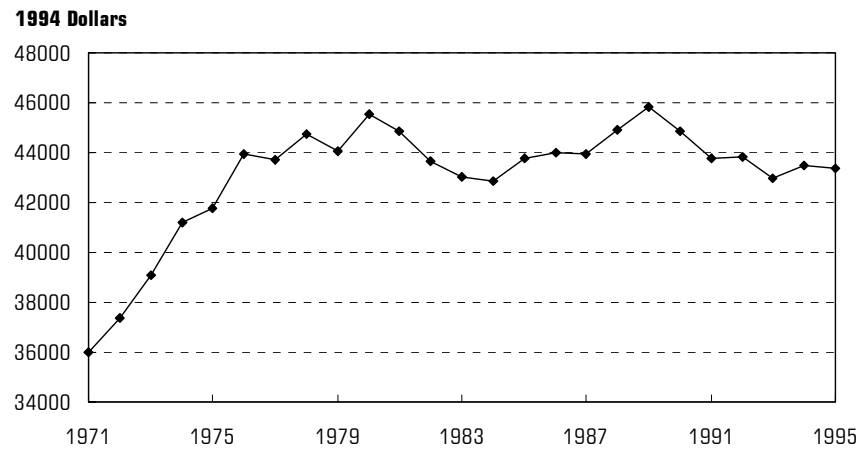


Figure 6(a): Real average incomes in Canada



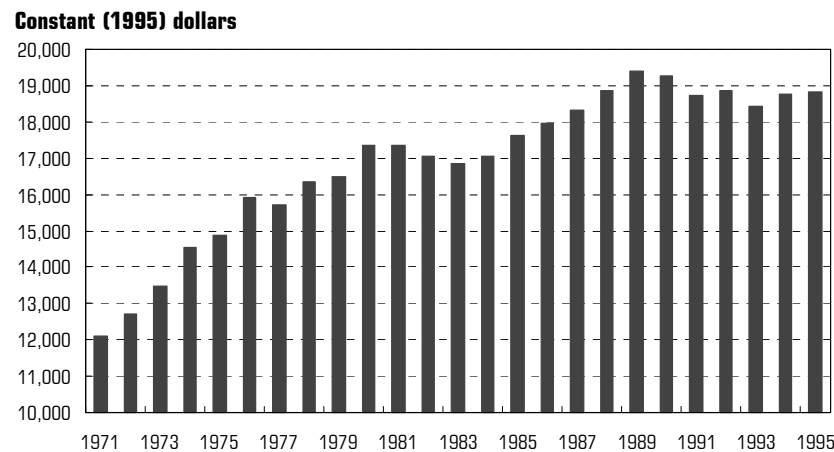
Source: Statistics Canada, Cat. No. 13-207, various issues and Poduluk 1968.

Figure 6(b): Real after-tax family incomes



Source: Statistics Canada, Cat. No. 13-210, various issues.

Figure 6(c): Average household income per capita



Source: Statistics Canada, Cat. No. 13-207XPD, 1995: 23.

level. Ideally, it should reflect the real purchasing power available to households and therefore indicate their standard of living. However, reported income is now less reliable as an indicator of economic well-being (see above pages 7-9). Figure 6(a) displays real average (pre-tax) income in 1994 dollars for families, unattached individuals, and all households for selected years since 1951. Figures 6(b) and 6(c) show average real after tax family income in 1994 dollars since 1951 and average household income per capita in 1995 dollars since 1971, respectively.

The pattern of real average incomes in figure 6(a) reflects, to a large extent, the pattern of post-war real GDP per capita. In both, we have strong upward movement to the mid- to late 1970s, a decline in the early 1980s, further growth during the rest of the 1980s and a more severe decline in the early 1990s. With real average incomes, however, the trend after the mid-1970s looks even less impressive. For both families and unattached individuals, real average incomes show very modest, if any, growth over the past two decades. The fact that the average family (and single individual) is now two-and-a-half times better off in terms of real income than their counterparts in 1951 is tempered by the fact that almost all of the gain occurred prior to the mid-1970s. At the same time, it must be noted that families are now much smaller than was the case in the earlier decades. Average family size was 4.0 in 1961, 3.7 in 1971, 3.3 in 1981 and only 3.1 in 1991 (Statscan, various issues [11-402-XPE]).

Figure 6(b), showing the trend in real after-tax family income since 1971 (no published data is

Table 1: Average income by quintile for Canada in selected years^A

Families	Income			Changes (%)	
	1973	1984	1994	1973–1994	1984–1994
Lowest Quintile	3,898	11,266	17,284	343	53
Second Quintile	8,220	22,472	32,994	301	47
Middle Quintile	11,508	32,705	48,007	317	47
Fourth Quintile	15,177	43,762	65,142	329	49
Highest Quintile	23,947	71,715	107,328	348	50

Unattached Individuals	Income			Changes (%)	
	1973	1984	1994	1973–1994	1984–1994
Lowest Quintile	833	3,836	6,601	692	72
Second Quintile	2,209	7,799	12,493	466	60
Middle Quintile	3,903	11,963	17,560	350	47
Fourth Quintile	6,367	19,397	28,747	351	48
Highest Quintile	12,097	35,725	53,342	341	49

^A Source: Statistics Canada, Microdata File of Economic Families, selected years.

available for earlier periods) has much the same pattern. There was strong growth before the mid-1970s and, aside from cyclical movements, stagnation afterwards. Thus, any modest growth in real pre-tax incomes after 1975 must have been scooped up in additional taxes. Again, a more complete picture of the trend in real after-tax family income must include changes in average family size.

Figure 6(c) reveals that, once household size is accounted for, real incomes of Canadian households perform somewhat better over the last two decades. Average household income per capita in constant 1995 dollars is 18 percent greater than it was in 1976 rather than the modest increase of 2 percent found if we ignore the changes in household size. Nevertheless, real household income per capita has been stagnant in the 1990s and was still below its 1989 peak by 1995.

While there is justifiable concern about the slower growth over the past two decades, the impressive gain in real incomes for all households over the whole post-war period cannot be ignored. The average person is now much better off materially in comparison to the average person in the 1950s and 1960s. As well, it is interesting to note that the improvement in living standards has been fairly equally distributed.

Table 1 displays the average income by quintile for 1973, 1984, and 1994. Microdata files allowing comparisons with earlier periods are not available. Between 1973 and 1994, for both families and unattached individuals, the average improvement in incomes of the bottom quintile was at least as much as the average improvement in the top quintile. For families, all of the gains were in the same order of magnitude. In the case of unattached individuals, the average gain in the bottom two quintiles (and especially the bottom quintile) was significantly higher than the gain in the upper quintiles. The changes over the period from 1984 to 1994 are particularly noteworthy in light of repeated claims that those at the bottom of the income distribution fared poorly during the 1980s. (See pages 28–29 for more detail on distributional gains and losses.)

Consumption

Consumption expenditures are a more reliable and informative indicator of material living standards than income. Consumption directly measures the standard of living much better than current income. Figure 7 displays the pattern of household expenditures in real 1995 dollars for selected

Table 2: Percentage ownership of selected facilities for all households in Canada in selected years^A

Item	1973	1977	1981	1984	1988	1991	1994	1996
Dishwasher	10.7	23.7	31.3	35.2	41.3	43.7	46.4	47.7
Freezer	37.4	47.4	52.8	56.1	56.9	58.2	58.8	57.1
Air Conditioning	6.6	15.3	16.8	16.6	20.8	26.7	26.8	29.3
Cable TV	n.a.	48.9	56.5	60.1	69.0	70.8	74.1	74.0
VCR	n.a.	n.a.	n.a.	12.5	52.0	68.5	79.2	83.5
Colour TV	43.2	72.4	82.9	88.4	95.1	97.2	98.2	98.5
Automobile	76.9	78.7	79.9	77.2	78.3	77.6	75.2	73.9
Home Computer ^B	n.a.	n.a.	n.a.	10.3	12.6	18.6	25.0	31.6
Total	174.8	286.4	320.2	356.4	426.0	461.3	483.7	495.6

^A Source: Statistics Canada, Canada Year Book, 1988 and 1990; Cat. # 13-218, various, and Cat. # 64 - 202, 1973.

^B Note: 1985 value for home computers used because no information was available for 1994.

years since 1948. These values are drawn from published data based on the national family expenditure surveys which Statistics Canada has conducted on an occasional basis since 1948. All of the current dollar values have been converted to constant 1992 dollars using the consumer price index.⁴

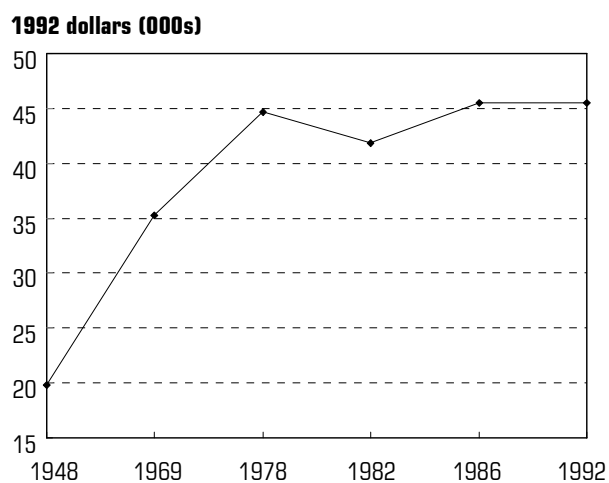
The broad pattern of real average household spending is consistent with patterns of real average income and real GDP per capita. Comparing the data from the three early surveys in 1948, 1969, and 1978, we can see an extraordinary growth in real average household expenditure. By 1978, the average Canadian was far better off in terms of his consumption basket than his counterpart 30 years earlier.

Comparing the data from the three later surveys in 1982, 1986, and 1992, it is clear that there has been very little growth in the living standard of the average household since 1978. This observation, however, must be tempered by the fact that household size has declined significantly over the period. Extensive use of per-capita consumption data later in this report (especially table 9, figure 21 and the index of living standards) shows the importance of adjusting for household size. At least as important a consideration is the fact that many of the consumption items today are different and generally far better than items available in the past. The contribution to living standards of the home freezer, the automatic dishwasher, air-conditioning and the colour television (to name just a few new appliances) cannot be fully captured by their dollar cost. So, to some extent, the trend in figure 7 since the late 1978 belies the true improvements in living standards.

Household facilities

Statistics Canada has been tracking the ownership of key house appliances and facilities since at least the 1960s. In aggregate, if more and more households acquire these items, it would suggest that living standards are improving.

Table 2 tracks a selected group of "typical" middle class amenities over a period for which facilities data are available. Some household facilities, such as refrigerators,

Figure 7: Average household expenditures (1992\$), 1948–1992

Source: Statistics Canada, Family Expenditure in Canada, Cat. No. 62–555, various issues.

flush toilets and telephones, have been omitted because they are now universal in Canada. Those selected have come to be regarded as an important part of middle-class living in the 1990s. All of these items function to make life easier and more convenient. What is remarkable is the rapid penetration of these consumer goods into the society when all except the automobile were not even available two generations ago. The essential point is that more and more Canadians are enjoying these middle class facilities. The total at the bottom of the table is a summation of the percentage ownerships of each of the items and represents a kind of crude index of household facilities. These total values are used later on in the construction of the overall living standards index.

Unemployment

Unemployment is a major economic and social problem: losing a job or not being able to find a job is a frustrating and debilitating predicament and the damage goes far beyond the loss of income. Unemployment for any considerable period of time has a detrimental impact on self-esteem and often changes the character of family and social relationships. In short, being unemployed reduces ones standard of living *directly* by reducing earnings and *indirectly* by impairing the enjoyment of life and the sense of well-being. Thus, even if income replacement is provided (via insurance or through family assistance), there remains the psychic loss of living standard due to unemployment.

At the same time, the unemployment rate is not an unambiguous indicator. Given the problem of moral hazard (*i.e.* the increase in risky behaviour and the decrease in personal responsibility that occurs when people are insured), it is not entirely clear that rising unemployment in the Maritimes, for example, has in fact lowered living standards, at least in the short run. Recipients may not even feel worse off for being unemployed. Unemployment insur-

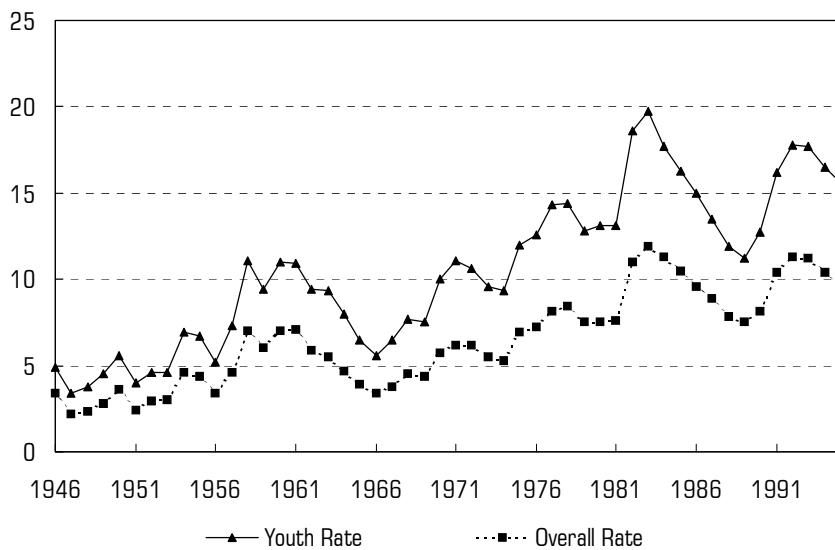
ance benefits have been built into the regular budgets of many recipients, they are able to stay in their own communities (*i.e.*, they are not forced by market realities to move where employment opportunities exist), and there is little, if any, stigma attached to being “on the dole” because it has become so common. In the long run, however, higher unemployment clearly makes individuals and regions worse off than would have been the case had there been full employment. We only need to point to the deadweight loss of GDP that results when resources are idle to understand that, over time, living standards are adversely affected by unemployment. I suggest that the equation

$$1 - \text{national rate of unemployment}$$

be a proxy for the contribution to living standards of the phenomenon of unemployment.

Figure 8 displays the overall rate of unemployment as well as the youth rate of unemployment since 1946. While both rates show an obvious cyclical pattern, the upward trend over the years is a matter of great concern. This issue is currently a major topic of debate among economists. Is the long term rise in unemployment due entirely to structural economic change? Since the United States has undergone very similar structural change, why has the Canadian unemployment departed so significantly from the

Figure 8: Canadian unemployment rates, 1946–1995



Source: Statistics Canada, Cat. No. 11–210, 1995/96, Canadian Economic Observer, various issues, and Statistics Canada, Historical Statistics of Canada, 2nd ed., Cat. No. 11–516E, 1983.

- American rate over the past 15 years or so? What role do measurement differences play in the gap between Canadian and American unemployment rates? What role do such things as payroll taxes and generous unemployment and welfare benefits play in explaining the upward trend in Canadian unemployment rates?
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The high unemployment rate among youths is of particular interest. Young people, lacking job experience and maturity, have always had difficulty getting established in the labour market. Often being more independent and foot-loose, and lacking family responsibilities, they are less likely to settle down into full-time employment. As well, those under 25 are much more likely to be students than those 25 and over. So, we expect that youth rates of unemployment will be higher. However, a recent report by Statistics Canada shows that youth employment has been declining while the rate for those over 25 has been increasing. Any reduction in the employment prospects of young people is clearly of concern. Higher education, as will be shown later, is a primary means of improving the chances of labour market success.

Summary

The main story of living standards in Canada over the period for which relevant data are available is one of outstanding progress. GDP per capita has more than quadrupled in 70 years. Real family incomes are now two-and-one-half times those of the early 1950s and families are now 20 percent smaller than they were then. The proportion of the population enduring real poverty has declined dramatically; we are much better educated; we are living longer and we are living healthier. The big picture is one of phenomenal success.

However, there is no room for complacency. The unemployment rate, now in the 8 percent to 9 percent range, is far too high. Despite the progress in alleviating poverty in Canada over the past four decades, as measured by the income indicator there are still about one million poor. That is one million too many. The apparent stagnation of family income, though overstated to some extent because of the deficiencies of income as an indicator of economic well-being, is clearly a matter of concern.



The details

In this section, there is a closer examination of particular aspects of Canadian living standards. The phenomenal success of the economy in improving average real incomes and alleviating poverty does not reveal what has happened to certain groups and segments of society and the interesting details get washed out in the averages. Many questions remain unanswered: How has the standard of living changed for particular age cohorts? Have young families fared poorly in recent decades? What about the middle class? How unequally distributed are income and consumption? Have immigrants done as well as those born in Canada? Which provinces have done better than average in terms of improving living standards?

Age and income

Earnings from employment and overall income usually rise through the early part of one's career, reach a peak when we are in our late 40s or early 50s and decline fairly rapidly thereafter. There are obviously wide variations on this theme but this pattern is a broad average.

There is no accessible longitudinal database for Canada which would reveal the lifetime pattern of earnings or income for a sample of the population. However, a number of projects are beginning to build up panel data (which tracks the same group of households over time) to examine the dynamic aspects of income and demographic change. One such project, the Survey of Labour and Income Dynamics (SLID) conducted by Statistics Canada, has followed the progress of some 26,000 persons over the two year period from 1993 to 1994. In the report released in July of 1997 (Statistics Canada 1997), the study revealed that there was considerable movement up and down the income scale even over the short two-year period. In 1994, about one-third of the population were in an income quintile different from that they occupied in 1993. Most of those (78 percent) moved by only one quintile while the other 22 percent had made a more pronounced shift. One of the most interesting findings of the study was that changes within the family (es-

pecially marriage or separation) dominated as a cause of movement in or out of the low-income quintile: 41 percent of all persons who dropped below the low-income cut-off in 1994 underwent a change in family composition.

At this stage, we are too early in the empirical study of Canadian income dynamics to understand the long-term patterns of income changes. All we have currently are cross-sectional surveys that provide a good "snapshot" of Canadians and their incomes in a given year. If we examine the real earnings and real-income profile of families by age of family head for the years 1973, 1984, and 1994 (all in 1994 dollars), we get a rough proxy for the lifetime pattern. This is seen in figures 9 and 10.

What is noteworthy is that the profile for each year is remarkably similar. The 1994 profile is not markedly different from the pattern of the other two years. Indeed, young families in 1994 appear to be worse off than their counterparts in earlier decades. In general, the apparent lack of improvement in real family incomes is consistent with the earlier evidence. Average real-family income has not increased greatly since the mid-1970s.

A comparison of the economic circumstance of families in 1973 and 1994 by age cohort, in figure 11, demonstrates the changes more clearly than the previous graphs.

What stands out here is that very young families in 1994 are a fair bit worse off than very young families were 21 years earlier. In 1994, families headed by a 21-year-old have 30 percent less real income than their counterparts in 1973. As well, families headed by those between 22 and 24 years of age are about 15 percent worse off. It is also fair to say that families in 1994 headed by those in their late 20s have only marginally more real income than those in 1973. For those over 30, however, real incomes are consistently higher (by about 15 percent on average) than they were in 1973.

Some of the apparent lack of progress of young families can be attributed to the large increase since the 1970s in the number of families with only one parent. Between 1973 and 1994, the number of such families as a proportion of all families rose by more than 50 percent (drawn from

Figure 9: Profiles of family earnings by age of family head

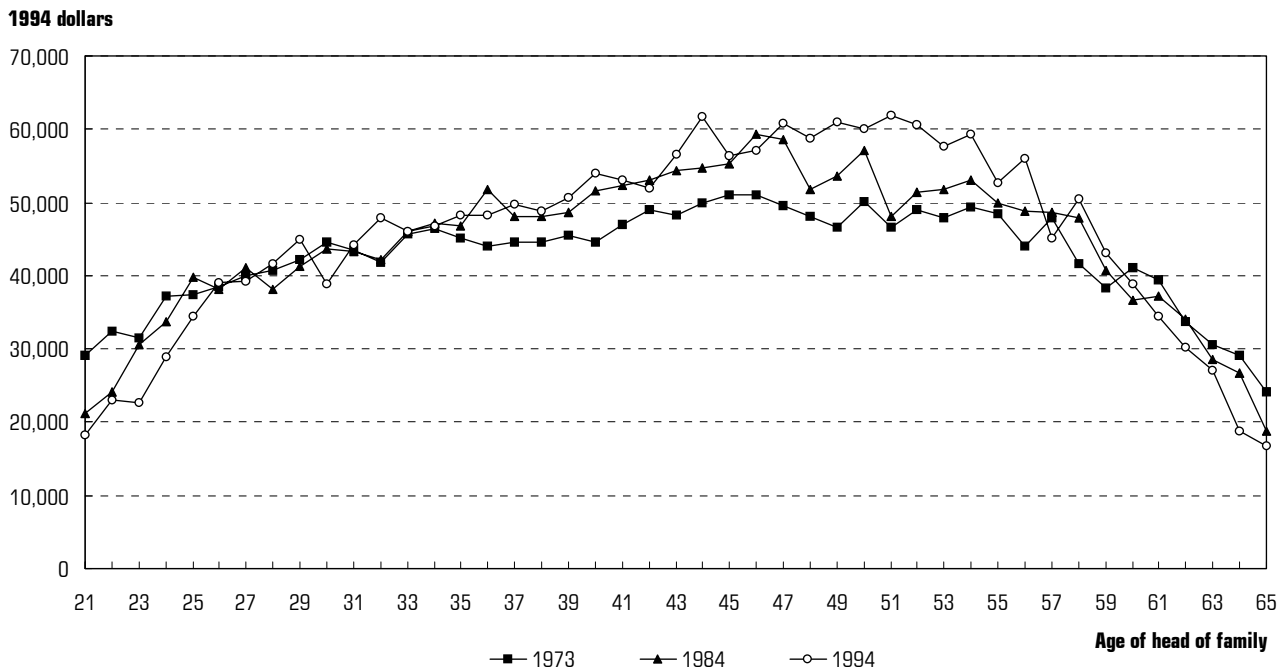
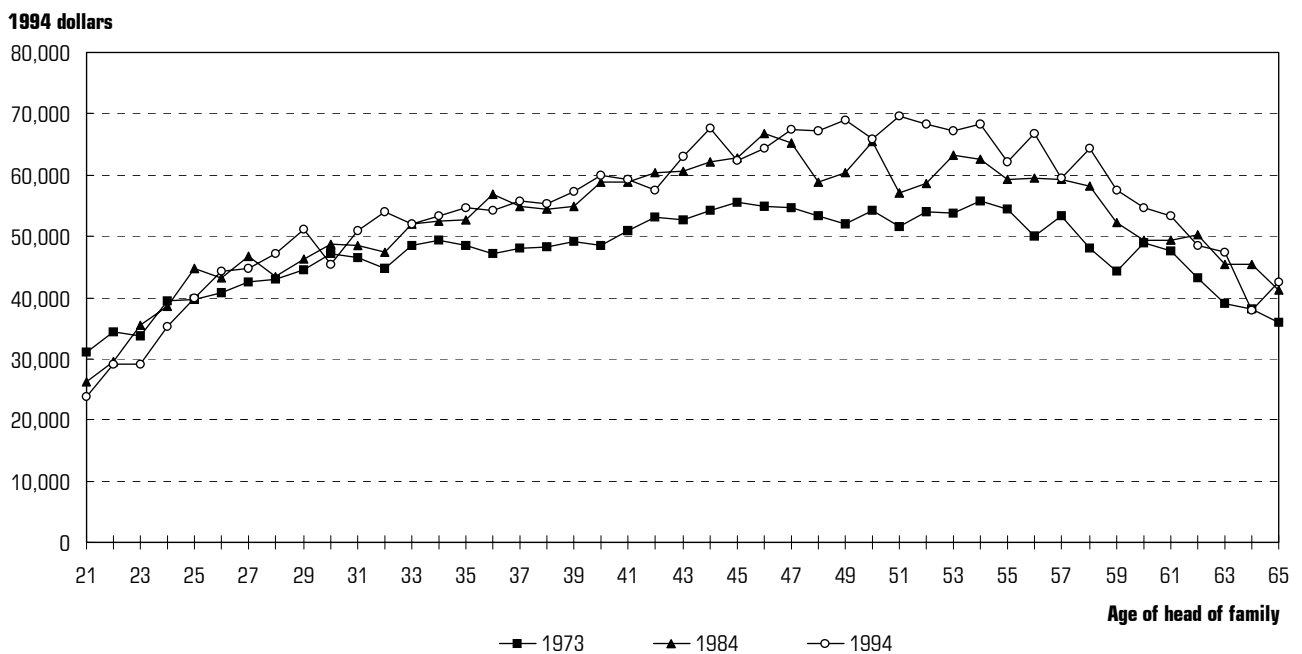


Figure 10: Profiles of family income by age of family head

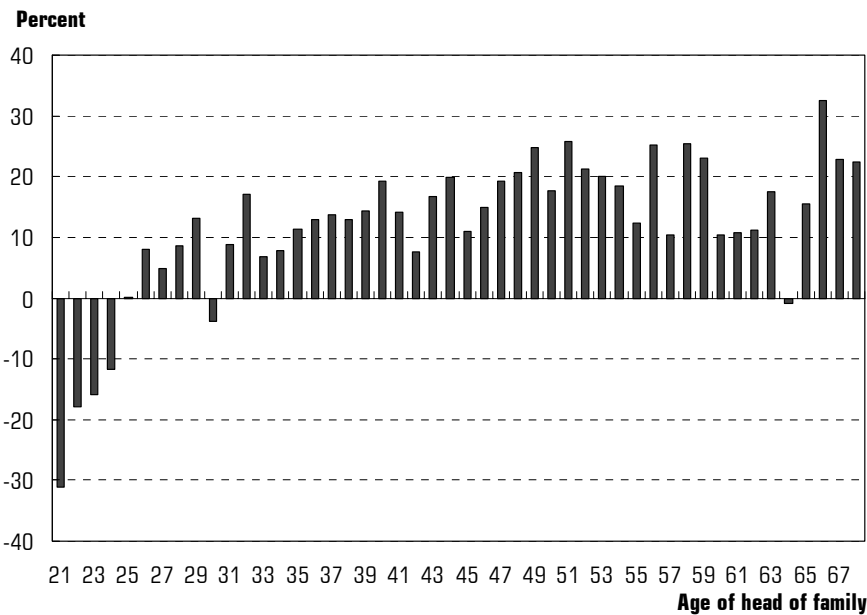


Sources: Statistics Canada, Microdata File of Economic Families, various years.

Statscan 1974, 1995). The heads of these families, mostly younger females, are more likely to be out of the labour force and are more likely to be on social assistance than heads of other families. When single-parent families are ex-

cluded, the relative economic performance of young Canadian families since 1973 improves considerably.

Nevertheless, it is still the case that families headed by someone under 25 years of age are materially worse off

Figure 11: Changes in real family income by age, 1973–1994

Sources: Statistics Canada, Microdata File of Economic Families, various years.

now than their counterparts two decades ago. Part of the explanation is undoubtedly economic restructuring and the lack of labour-market opportunities for the inexperienced and unskilled. However, we cannot ignore the role played by the under-reporting of income and the underground economy. As well, the increased numbers of young married people who are still in school and the work disincentive of some social programs may also help explain some of the decline in real income.

Earnings from employment

The major source of income for most non-retired individuals and families is earnings from employment. In 1994, earnings (which comprise wages, salaries, and net income from self-employment) made up 85 percent of average household income for households headed by someone under 65 (drawn from Statscan 1974, 1995). Although other sources of income have grown in importance over the years, earnings from employment remain the foundation of households' current and future living standard.

The dramatic rise in the number of women in the labour force in this century has fundamentally changed not only the labour market but family and society as well. Whether out of a desire for a better standard of living or the pursuit

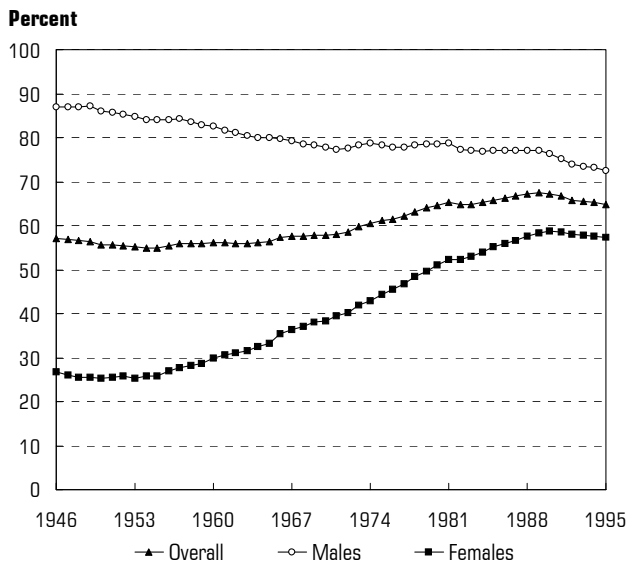
of personal fulfillment and independence, women—married women in particular—have increasingly embraced labour-market employment. In 1901, only 16 percent of women over 15 were employed. By 1941, participation by women in the labour force had risen to 23 percent (Gunderson and Riddell 1993: 98). The big increase, though, occurred in the 1960s and 1970s (see figure 12).

Between 1961 and 1981, the female participation rate in Canada increased by 70 percent to 52.3 percent. Over the same period, the male rate was declining modestly due, in part, to a higher participation in post-secondary education by young males and more early retirements. More recently, the female participation rate has levelled off at about 57 percent.

More females in the labour force has meant many more two-income families. Between 1961 and 1994, the proportion of families with two incomes more than doubled to about 60 percent of all husband-and-wife families.

Partly because of the increase in participation by women in the labour force, more attention has been focused on the disparity between earnings of men and women. Although the differential has declined steadily over time, by 1995, women who were in the labour force still earned only 65 percent of the earnings of men in the labour force. when one compares only full-time, full-year workers, the proportion rises to 73 percent. Labour economists have argued that the remaining discrepancy can be mainly attributed to three factors: education and experience; the crowding hypothesis, which suggests that men and women may tend to have intrinsically different preferences for particular activities and occupations; and discrimination. Morley Gunderson (1989), for example, has pointed out that once education levels have been accounted for, differences in occupational distribution explains much of the remaining gap between the earnings of men and women. He cites a variety of studies that show that within the “same narrowly defined occupation, ratios of female/male earnings of 0.80 are common” and “within the same establishment ... ratios of female/male earnings of 0.90 and 0.95 and more are typical” (Gunderson 1989: 51–52).

Figure 12: Participation rates from 1946 to 1995



Sources: Statistics Canada, Cat. No. 11-210, 1995/96.

Considerable attention has also been focused on earnings polarization. Briefly, earnings are more polarized if there are more earners (or a greater proportion of total earnings) in the top and/or bottom groupings of the income distribution and fewer in the middle. Increasing polarization of earnings, if it exists, would be evidence of a growing dual labour market and would raise concerns about a shrinking middle class. In a recent study entitled *Are We Becoming Two Societies? Income Polarization and the Myth of the Declining Middle Class*, Charles Beach and George Slotsve (1996) point out that men’s earnings have indeed become more polarized over the past two decades. Women’s earnings, in contrast, have not become more polarized. However, the data used by Beach and Slotsve is for “all earners.” Given the increasing prevalence of part-time and part-year work, it may well be that rising polarization of male earnings is due, in large part, to greater disparities in hours worked rather than in the rate of earnings themselves.

For example, if we examine the earnings of all household heads (of either sex) who reported any earnings in 1994, we see in figure 13(a) that both polarization indexes drift up over the period. Polarization indexes are measures of the percentage of income flowing to recipients with either very high or very low income. For example, Polarization Index 1 (P1) is the percent of all earnings above 1.5 times the median earnings and below 0.5 times the median earnings and Polarization Index 2 (P2) is the percent of earnings above 1.75 times the median earnings and below 0.25 times

median. Between 1973 and 1994, P1 increased by 26 percent and P2 by 34 percent. However, a large portion of the increase is due to an increase in the number of part-time and part-year workers, a circumstance that naturally tends to increase the inequality of earnings. Thus, in figure 13(b), which tracks P1 and P2 just for the earnings of household heads who were full-time, full-year workers, we see that both polarization indexes are much lower and both show a much more moderate upward drift: 16 percent in the case of P1 and 15 percent in the case of P2.

Beach and Slotsve’s most important conclusion, that family incomes have not become more polarized and that the middle class, defined in purely relative terms, has not declined over the past two decades, needs emphasis. This

Figure 13(a): Polarization indexes: earnings of all household heads

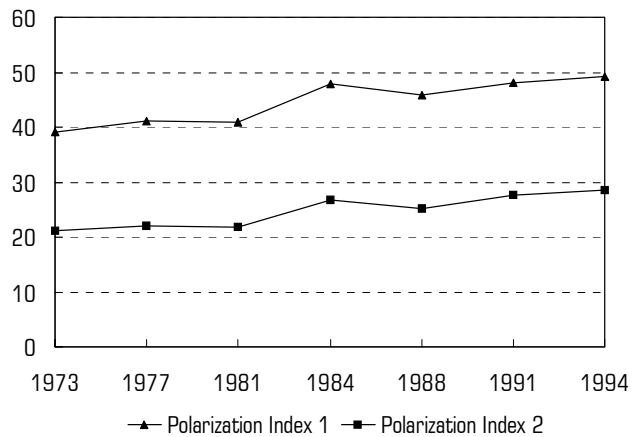
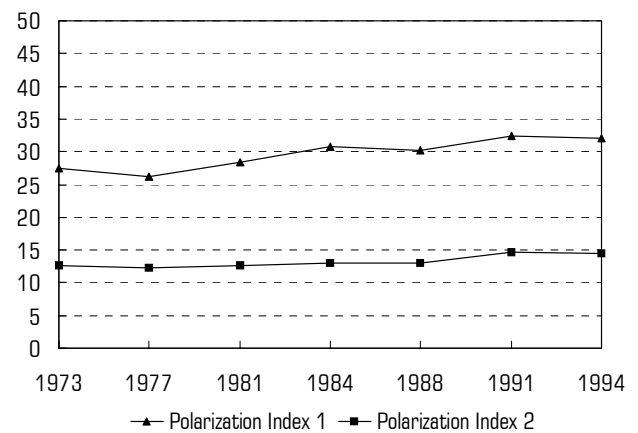


Figure 13(b): Polarization indexes: earnings of household heads with full-time, full-year employment



Sources: Statistics Canada, Microdata File of Economic Families, and calculations by author.

Table 3: Average earnings in 1973 and 1994 of all Canadian workers by level of education (current dollars)^A

Educational Level	1973				1994			
	Married		Unattached individuals		Married		Unattached individuals	
	Men	Women	Men	Women	Men	Women	Men	Women
Grade School Only	5,488	538	2,643	662	10,563	3,718	6,985	1,123
Some High School	8,003	1,374	5,128	2,109	18,248	7,428	14,502	3,980
High School Graduation	9,562	2,138	6,545	3,583	26,650	12,536	21,633	9,856
Some Post-Secondary	9,782	2,921	5,612	4,325	25,690	13,855	20,593	11,691
Post-Secondary Cert. or Dipl.	12,856	4,221	5,717	5,285	30,285	16,087	23,174	15,271
University Degree	14,895	4,725	9,082	7,838	47,323	26,642	33,604	26,255

^A Source: Statistics Canada; Microdata File of Economic Families, 1973 and 1994.

result contradicts a widespread view in the popular press regarding a supposedly rising disparity between the rich and the poor (relatively speaking) in Canadian society. Beach and Slotsve point to pooling of incomes within families, the equalizing effect of government transfers (see below page 32–34), and the offsetting effects of the trends in the earnings of men and women as largely responsible for the fact that polarization of family incomes has not increased. Evidence presented later in this report (see p. 32) supports the conclusion that the middle class in Canada is not declining. Evidence presented already suggests that more Canadians than ever before enjoy a middle-class living standard (or better).

Education and earnings

There is ample evidence that investments in human capital (*i.e.*, education and training) pays off in terms of higher expected lifetime earnings. In general, the greater the level of formal education, the greater the earnings and the evidence suggests that this is more true now than it was in the early 1970s.

Table 3 shows the average earnings of all men and women⁵ who worked and reported positive earnings, in current dollars, for the years 1973 and 1994. The direct relationship between earnings and the level of formal education is clearly borne out in the table. In several cases, especially with male earners, there is a bit of “slippage” in the category *some post-secondary education*. This is somewhat anomalous and may be partly explained by people who are still in school, either as full-time or part-time students.

A university degree has always conferred its economic benefits, but the evidence in table 3 shows that the margin of advantage over those with certificates or diplomas has grown substantially for married persons since 1973. The margin of advantage over high-school graduates has increased more modestly but for both married and single persons between 1973 and 1994.

Table 4 shows the average earnings of full-time workers alone. Because of the increasing prevalence of part-time work in Canadian society, this table gives us a somewhat fairer comparison. The anomaly in the category *some post-secondary education* shows up again, but only in 1994. As well, the growing margin of advantage for university graduates over college graduates (and to a lesser extent, over high-school graduates) again prevails for married persons. While broad averages never tell the complete story, these tables reveal a clear connection between the level of formal education and earnings. In general, the more schooling you have, the higher will be your material standard of living.⁶

Finally, the advantages of more formal schooling are not limited to the earnings while employed but extend to the *probability of being employed*. In table 5, unemployment rates by education level show a clear inverse pattern despite the long-term upward drift in all rates over the decades.

The poor, the rich, and the middle class

It has become common to measure the rich, the poor, and the middle class in purely relative terms. The rich are most often identified as those individuals or families in the top 10

Table 4: Average earnings in 1973 and 1994 of full-time Canadian workers by level of education (current dollars)^A

Educational Level	1973				1994			
	Married		Unattached individuals		Married		Unattached individuals	
	Men	Women	Men	Women	Men	Women	Men	Women
Grade School Only	7,706	3,847	5,579	3,088	25,732	15,597	25,617	15,796
Some High School	9,201	5,078	6,664	4,168	29,467	17,331	25,397	17,052
High School Graduation	10,503	5,808	7,147	5,294	34,326	22,048	29,583	23,291
Some Post-Secondary	10,667	6,910	6,898	5,723	34,504	22,697	28,671	20,817
Post-Secondary Cert. or Dipl.	14,125	8,363	6,957	7,127	37,386	24,475	30,117	25,999
University Degree	15,940	10,030	10,007	9,082	55,908	36,504	40,274	36,173

^A Source: Statistics Canada; Microdata File of Economic Families, 1973 and 1994.

Table 5: Unemployment rates in 1973 and 1994 of men and women by level of education (percent)^A

Educational Level	1973				1994			
	Married		Unattached individuals		Married		Unattached individuals	
	Men	Women	Men	Women	Men	Women	Men	Women
Grade School Only	9.2	1.8	13.0	10.4	16.6	13.3	25.7	17.8
Some High School	4.0	4.4	9.1	6.2	14.7	10.8	25.0	22.6
High School Graduation	2.7	3.9	8.4	2.0	8.2	8.6	14.8	11.6
Some Post-Secondary	2.3	2.6	6.7	2.3	8.8	8.1	12.1	11.3
Post-Secondary Cert. or Dipl.	0.1	3.3	1.7	2.3	7.9	6.7	13.8	7.0
University Degree	0.7	1.4	3.1	3.2	3.5	3.9	7.7	4.9

^A Source: Statistics Canada; Microdata File of Economic Families, 1973 and 1994.

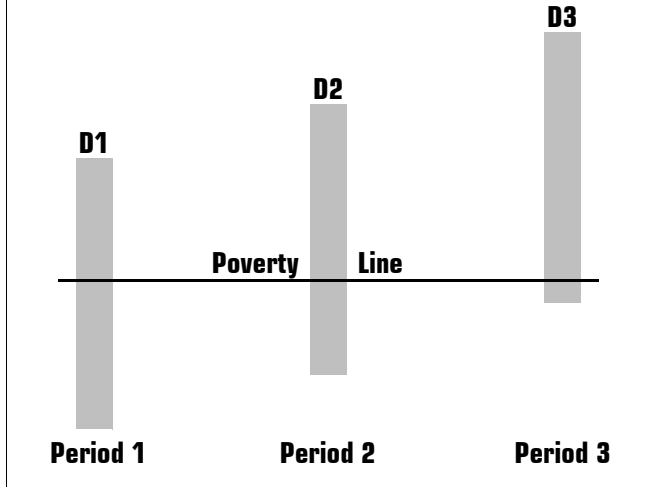
percent or 5 percent of the income or wealth distribution. The poor are identified as those in the bottom 10 percent or 20 percent or else those whose income falls below half the average or median income of society. The middle class, by default, is what is left after rich and poor have been categorized or, simply and literally, some middle-income grouping such as the middle 60 percent or middle 80 percent of the income distribution.

It is difficult to argue too strenuously against such relative measures, especially when they are used in a casual manner, and it is the case that we tend to judge our current economic situation at any point in time in relation to how most others around us are doing. Without doubt, relative measures are of great interest. But they miss so much!

The enormous growth in living standards in this century, lifting rich and poor alike, registers nary a ripple on rel-

ative gauges. The fact that people today are far better off materially than their grandparents were is entirely neglected by relative measures unless there is some change in the way incomes are distributed. More and more Canadians are enjoying a middle-class standard of living than ever before but, according to some studies using relative measures, the middle class is shrinking. When it comes to the very important task of measuring genuine economic progress, relative benchmarks are of little value.

To see an illustration of this point, imagine a society in which there is modest but steady economic growth such that there is an across-the-board increase of all incomes in real terms over time. In figure 14, the entire distribution of income can be represented by a thin rectangle. We start with the income distribution D1. Over a period of time, the distribution grows to D2 and later on to D3.

Figure 14: Hypothetical income distributions over time

The whole distribution is moving up over time. Everyone's real income is improving but, unless there is some change in inequality of income—that is, some change in people's relative positions—relative measures cannot acknowledge what has happened. Relative poverty will be the same in each period yet many who were previously poor are now much better off. While we should continue to track relative measures to determine if inequality is changing, we clearly need absolute measures to inform us about any real progress in the standard of living. We need measures such as average real family income, inflation-adjusted levels of household consumption, proportions of households owning certain facilities and, perhaps most important, a poverty line connected to the costs of necessities.

A basic-needs poverty line

The development of a basic-needs poverty line is founded on the premise that poverty is, largely, a problem of real deprivation of necessities. People are poor when they are ill-housed and ill-clothed, when they and their children are hungry, and when they cannot afford essential medical care. Lacking basic needs embodies what it means to be living in poverty in a way that relative deprivation can never do.

In other research (Sarlo 1996 and, especially, Sarlo 1994), I have attempted to construct a poverty line based on basic needs that can be used to tell Canadians whether any progress has been made in reducing poverty. Essentially, a person's poverty line in a given year would be the total cost of acquiring nutritious food, adequate shelter (apartment accommodation in Canada) including the standard set of facilities and furnishings and household supplies, transportation, clothing, and health care (including personal hygiene

costs, necessary medications, eye and dental care and, of course, the standard range of preventive and emergency care). Appropriately, these costs vary by particular circumstance, size of family, size of city and even sex, to some extent. Additional items such as restaurant meals, vacations, home computers, and leather jackets are not included, not because the poor should not have these items but because we are, after all, trying to measure how many of our fellow citizens cannot afford *even basic necessities*. I have suggested the use of a "social comfort line" set, quite arbitrarily, at twice the poverty line, which might help to inform us about the extent of "social deprivation."

My own calculations result in approximate average 1997 poverty lines for Canada by family size of: 1—\$7,500; 2—\$10,500; 3—\$13,500; 4—\$17,000; and 5 or more—\$20,000.

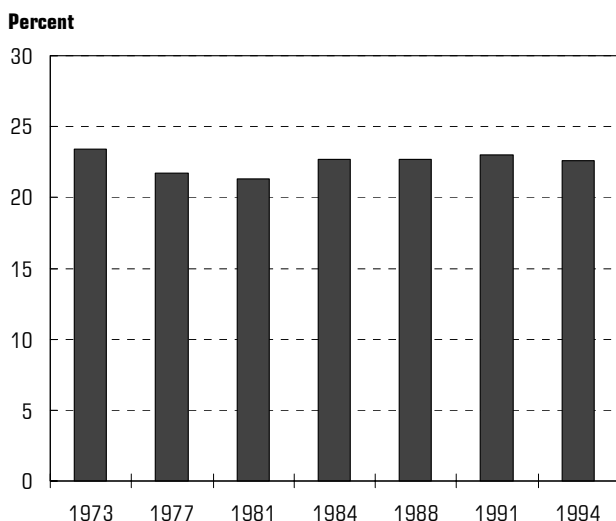
A person or family whose true income is less than the poverty line is likely to be deprived of some basic need unless additional help is available. Of course, reported income is not always the same as true income and so the use of reported incomes tends to overstate, to some extent, the real level of poverty. However, there is no easy and reliable way to discover "true income." As with most studies, my estimates of poverty in Canada are based on reported income despite its flaws. In 1994, the latest year for which reported income microdata are available, roughly 1.1 million Canadians or about 4 percent of the population were poor according to the basic-needs definition of poverty. More importantly, the rate of basic-needs poverty has declined dramatically over the past 40 years, as we saw in figure 5. In 1951, roughly one in three Canadians had insufficient income to cover all the necessities. In 1994, only one in 25 endured this kind of deprivation. This is remarkable progress!

The use of a purely relative line such as a measure set at half the average income adjusted for family size, however, shows very little progress in reducing poverty. The Canadian Council on Social Development (CCSD) has for many years used this measure (half the average income) because their view is that poverty is solely a relative phenomenon. As figure 15 shows, the relative poverty rate using the CCSD line in 1994 is essentially the same as it was in 1973. This is a period over which absolute poverty in Canada roughly halved!

The simple reason for the apparent lack of progress is that relative lines do not measure poverty at all. They measure inequality. Even the well-known Low-Income Cut-Off (LICO), developed in the 1960s by Statistics Canada to indicate the number of Canadians who were likely to be living in "straightened circumstances" completely fails to record the



Figure 15: Relative poverty rate based on the poverty line of the Canadian Council on Social Development



Sources: Statistics Canada, Microdata File of Economic Families, various years, and calculations by author.

phenomenal reduction in real poverty in this country. It fails because it is also a relative measure, intimately connected to the average spending of Canadians, despite its reference to basic necessities. Jenny Poduluk, the statistician most responsible for LICO, estimated that about 29 percent of Canadians were “low income” in 1961 (Poduluk 1968: 187, 194). Statistics Canada, continuing to track the incidence of “low income” found that the rate (using latest “revised” lines) was 20.6 percent in 1971, 15.3 percent in 1981, and 17.4 percent in 1995 (CCSD 1979: 24, table 13; National Council of Welfare 1995: 10, table 2). This very modest decline using the LICO measure completely misses the extraordinary improvement in the lot of those living at the bottom of the income distribution. By comparison, in 1961 basic-needs poverty was 5 times as common as it is today. LICO, when used as a poverty line, simply does not tell us the real story.

A major advantage of basic-needs poverty lines is that they represent a constant standard by which to measure progress. That standard—the cost of a fixed list of necessities—is the same through time even though the costs vary over time.⁷ We cannot measure change adequately if our gauge is also changing. As we saw in figure 14, even as the income distributions are moving up over time, the poverty standard was constant and rising living standards lifted many households above the poverty line. An ever smaller portion of the population is poor if we have solid, across-the-board economic growth like that in Canada over the past four decades.

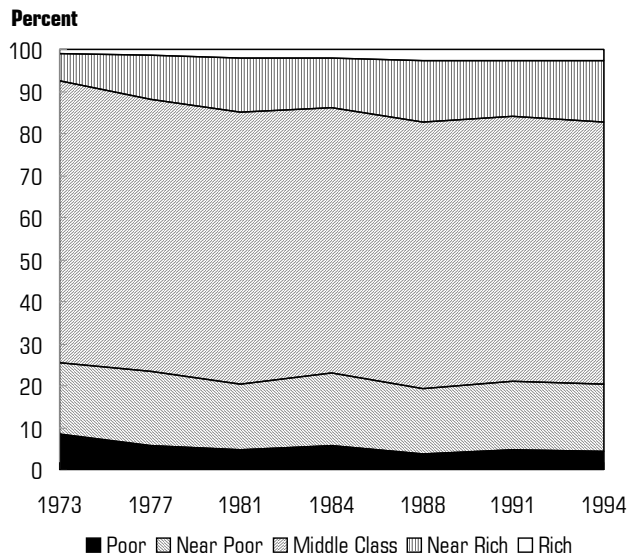
Using the absolute approach

If an absolute approach to measuring poverty is useful in informing us about changes in poverty (and I strongly believe that it is) does it have any relevance in tracking changes in the rich and the middle class? If we consider only income, can we, for instance, develop a concept of “rich” that means being far removed from the poverty line? Is someone or some family rich if they can afford much more than those living at the poverty line? If we are inclined to answer these questions affirmatively, then it is possible to construct a framework connected to the poverty line to categorize rich, middle-class, and poor.

For example, a person or family having an income of 10 times the poverty line might be regarded as sufficiently far removed from poverty to be rich. There might be a tendency to label such a threshold as a relative measure. However, because the poverty line is absolute (based, as it is, on the costs of a fixed list of needs) a “rich” cut-off which is a multiple of the poverty line is also absolute. A change in the distribution of income will not affect the rich threshold but a change in the real cost of food or apartment accommodation will do so. If one were to use the “10” factor in establishing a “rich” cut-off (*i.e.*, to be rich is to have 10 times or more income as someone at the poverty line), the approximate values for 1997 by family size would be: 1—\$75,000; 2—\$105,000; 3—\$135,000; 4—\$170,000; and 5 or more—\$200,000.

These values would certainly correspond to most notions of “richness” measured by income in 1997. Filling out the structure, the “near poor” would be those living above the poverty line but at, or below, the social-comfort line set at twice the poverty line and the “near rich”, those between 6 and 10 times the poverty lines. These selections are entirely arbitrary but no more arbitrary than poverty lines that are set at half the mean or median income, or than a definition of the “rich” as the highest 10 percent of incomes. It is clear that one cannot avoid arbitrariness in the study of the various income-groupings and there are no “natural” thresholds. Nevertheless, the basic-needs poverty line is about as close as we can get to a “natural” threshold in the social sciences. It is important to select reasonable thresholds and stick to them in tracking change over time.

Utilizing this framework for income subdivisions and Statistics Canada microdata files (only available since 1973), figure 16 displays the percentages in each grouping for selected years over the past two decades. The sharp reduction in poverty is notable. The incidence of poverty in Canada has roughly halved over the past two decades and, clearly, most of the decline occurred in the 1970s. Equally impressive is the rise in the proportion of rich and near rich. Both

Figure 16 Rich, poor and middle class, 1973–1994

Sources: Statistics Canada, Microdata File of Economic Families, various years, and author.

categories have more than doubled between 1973 and 1994. The proportion of near poor is about the same but the size of the middle class, using this absolute framework, is down by about 7 percent. This, however, should not be viewed as bad news since living standards increased solidly during part of this period and fewer Canadians are now living in poverty. The modest decline in the size of the middle class is due, in aggregate, to movement into the higher categories and not to movement downwards.

Figure 16 is an important graph. It displays the real improvement in the economic circumstances of Canadian households in the 21 years for which the required data is available. Clearly, given the indirect evidence from earlier periods, more dramatic absolute improvements occurred in the 1950s and 1960s. When these are put together, it is clear that many more people can now enjoy the “good” life that was available to only a tiny group earlier this century. This graph gives us a more accurate picture of what has happened to Canadian living standards than any relative measure could. That there has been no perceptible progress since 1988 is a cause for concern.

Poverty among children

The existence of children living in poverty is particularly disturbing because they have no control over their situation;

they are unwitting victims of parental misfortune or mismanagement. Concern about child poverty has increased in recent years after various reports using relative measures pointed out that about one in 5 children in Canada lived in poverty. In 1989, the House of Commons passed an (all party) resolution to end poverty among children by the year 2000. Various social-welfare groups continue to issue reports and make claims that poverty among children in Canada is, if anything, getting worse.

The statistical evidence of real living standards and “basic-needs” poverty, however, does not support the view that poverty among children has become a crisis in Canada. Indeed, all of the evidence presented thus far in this report points to improving living standards and conditions for most families since the end of World War II. On average, children today are significantly better off than their parents were as children but averages can mask a lot of interesting detail. What are the specific numbers and proportions of poor children in Canada over the period for which we have reliable data?

Tables 6a, 6b, and 6c display a breakdown by age and family-size of estimated poverty among children for the years 1973, 1984, and 1994. The most noteworthy value for each year is the overall child-poverty rate at the bottom of each subsection. This rate has declined from 9.06 percent in 1973 to 5.61 percent in 1994, a decrease of 38 percent. This decline pretty much matches the rate of change in the overall poverty rate over the period. This reduction in measured poverty among children occurred despite the sharp increase in single parenting and the increasing unreliability of reported income, especially at the bottom end.

What is particularly noteworthy in the table is that children in families of only two persons are much more vulnerable to poverty than children in larger families. Indeed, they face at least twice the risk of being poor as all other children. This confirms what is already well-known: single parents face major difficulties. They are most often young, female, not well educated, and must raise a child alone often with no assistance of any kind from the child’s father. We might expect that this combination increases the risks of poverty. Also notable is that the very youngest children face the highest risk of poverty over the whole period. This, again, is not surprising. The youngest children are likely to have the youngest parents and poverty is, in large part, a problem of youth. Every study of poverty, regardless of the particular definition used, shows that poverty rates decline sharply as household heads move out of their twenties. This pattern is consistent whether the household heads are single or married.

Table 6a: Estimation of child poverty in Canada for 1973^A

Age Range		Size of Family			
		2	3	4	5+
Less Than 6 years old	Number of Poor Children	14,050	40,780	56,240	96,940
	Number of Children	36,450	40,160	768,270	885,440
	Child Poverty Rate	38.55	10.02	7.32	10.95
Between 6 and 15	Number of Poor Children	10,300	37,720	73,530	26,3170
	Number of Children	36,020	287,290	993,790	2,930,310
	Child Poverty Rate	28.60	13.13	7.40	8.98
Between 16 and 17	Number of Poor Children	2,480	7,460	9,220	37,850
	Number of Children	18,310	99,430	173,340	537,660
	Child Poverty Rate	13.54	7.50	5.32	7.04
All Ages	Number of Poor Children	26,830	85,960	138,990	397,960
	Number of Children	90,780	793,880	1,935,400	4,353,410
	Child Poverty Rate	29.55	10.83	7.18	9.14
Overall	Number of Poor Children	649,740			
	Number of Children	7,173,470			
	Child Poverty Rate	9.06			

^A Source: Statistics Canada, Microdata File of Economic Families, 1973, 1984, 1994; and calculations by author.

It would be a mistake, however, to use this statistical evidence to dismiss the problem of poverty among children. If there are only about 400,000 children in Canada deprived of basic needs, that is 400,000 too many. It is clear that there are still children in Canada who go to bed hungry and who are ill-housed. Part of the problem may be solved by an improving job market but much of the problem has little to do with money and much to do with parents failing to take their responsibilities seriously.

My earlier research (especially Sarlo 1994) has examined the issue of the adequacy of social assistance benefits. In general, welfare recipients with dependent children receive sufficient income (counting all federal and provincial tax credits and benefits) to cover basic needs. In other words, the various provincial social-assistance programs fulfill the mandate of the Canada Assistance Act to provide income to meet the cost of basic requirements of a single person or a family when all other financial resources have been exhausted. Over the past two decades, social-assistance benefits, like earnings and family incomes, have just barely kept pace with the cost of living. However, new tax credits and benefits (the child tax benefit in particular) have

boosted the real incomes of recipients in the 1990s. For example, the average annual benefit for a family of four (two adults and two children) in Canada in 1973 was about \$3,900. The amounts to roughly \$14,700 in 1996 dollars. Currently, the average income of this category of recipients is about \$18,000.

The concern, more and more, is that there is a far larger problem in society involving children that has nothing at all to do with low incomes. There are now more than one million children of divorced parents. The proportion of families with only one parent has doubled in just over one generation. The stress of family break-up and the absence of one parent is particularly difficult for children. The Canadian Council on Social Development noted in their recent report (1996) on the progress of Canada's children that the rate of violent offences by youths 12 to 17 years old more than doubled between 1986 and 1992. They also report that choices made by parents are having a profoundly damaging effect on children: one quarter of mothers reported that they smoked during their pregnancy; 20 percent admitted to consuming some alcohol while pregnant; despite the overwhelming evidence of the health advantages of breast-feeding, about

Table 6b: Estimation of child poverty in Canada for 1984^A

Age Range		Size of Family			
		2	3	4	5+
Less Than 7 years old	Number of Poor Children	18,290	47,930	79,870	73,830
	Number of Children	90,600	568,460	1,081,810	836,500
	Child Poverty Rate	20.19	8.43	7.38	8.83
Between 7 and 11	Number of Poor Children	5,340	29,920	45,910	59,180
	Number of Children	55,700	211,140	729,110	763,740
	Child Poverty Rate	9.59	14.17	6.30	7.75
Between 12 and 15	Number of Poor Children	7,500	21,880	39,830	42,970
	Number of Children	54,620	195,100	563,930	648,580
	Child Poverty Rate	13.73	11.21	7.06	6.63
Between 16 and 17	Number of Poor Children	2,960	7,050	14,110	18,280
	Number of Children	32,720	12,110	267,420	307,100
	Child Poverty Rate	9.05	58.22	5.28	5.95
All Ages	Number of Poor Children	34,090	106,780	179,720	194,260
	Number of Children	233,640	986,810	2,642,270	2,555,920
	Child Poverty Rate	14.59	10.82	6.80	7.60
Overall	Number of Poor Children	514,850			
	Number of Children	6,418,640			
	Child Poverty Rate	8.02			

^A Source: Statistics Canada, Microdata File of Economic Families, 1973, 1984, 1994; and calculations by author.

half of all newborns are not breast fed at all or are breast-fed for less than one month. And recent evidence from Toronto reveals that the number of babies born to drug-addicted mothers is up sharply (*Toronto Star* 1997). I think that experts on children would agree that some degree of material deprivation is far less damaging than abuse and neglect. The problem of “poverty” among children is not, for the most part, a problem of lack of income.

Inequality

Social scientists have long had a keen interest in inequality. Statistical measures of inequality of income and wealth were developed almost as soon as we had reliable data on income and wealth. There is a natural human tendency to compare one’s material well-being with that of others. There is also a very human tendency to resent significant differences in income and wealth and, as many wits have ob-

served, that resentment is far greater towards those above us than those below. This inequality of income and wealth is widely regarded as a problem and any increase in inequality, therefore, is felt to be a major problem. Why is this so? What is it about significant differentials between people that presents a problem? Is it a problem by itself or is it a symptom of a problem?

Socialists frequently make the claim that inequality of income or wealth is bad and that it is the result of unfair distribution under capitalism. But, it is a rare socialist who wishes to impose perfect equality on all persons or families. Perfect equality, you see, means that extra effort, diligence, productivity, or saving cannot be rewarded and, worse, that laziness and irresponsibility cannot be punished. Rather, socialists tend to focus on the problem of “too much” inequality and actively promote “redistribution.” High and rising inequality, they claim, “erodes the social glue” that fastens society together. But “erosion of the social glue” is merely a euphemism for resentment.

Table 6c: Estimation of child poverty in Canada for 1994^A

Age Range		Size of Family			
		2	3	4	5+
Less Than 7 years old	Number of Poor Children	23,004	47,955	54,165	46,155
	Number of Children	134,360	629,170	1,117,899	851,537
	Child Poverty Rate	17.12	7.62	4.85	5.42
Between 7 and 11	Number of Poor Children	78,80	26,166	41,326	43,385
	Number of Children	67,367	263,430	811,986	807,387
	Child Poverty Rate	11.70	9.93	5.09	5.37
Between 12 and 15	Number of Poor Children	6,858	16,507	21,354	26,327
	Number of Children	71,664	222,421	648,172	615,714
	Child Poverty Rate	9.57	7.42	3.29	4.28
Between 16 and 17	Number of Poor Children	3,543	7,979	10,344	9,542
	Number of Children	44,593	144,788	316,902	250,237
	Child Poverty Rate	7.95	5.51	3.26	3.81
All Ages	Number of Poor Children	41,285	98,607	127,189	125,409
	Number of Children	317,984	1,259,809	2,894,959	2,524,875
	Child Poverty Rate	12.98	7.83	4.39	4.97
Overall	Number of Poor Children	392,490			
	Number of Children	6,997,627			
	Child Poverty Rate	5.61			

^A Source: Statistics Canada, Microdata File of Economic Families, 1973, 1984, 1994; and calculations by author.

While political scientists and historians would urge us not to underestimate the power of resentment, we need a stronger basis for scholarly concern about inequality. Inequality of opportunity rather than unequal outcomes is a possible basis. This is particularly true when the barriers to opportunity are based on economically irrelevant considerations such as sex and race. In many societies in the West, however, the most compelling determinants of opportunity are intrinsic to the individual; that is to say, we value intelligence and other personal characteristics. And these key characteristics, some heritable, some not, are simply not equally distributed. Thus, even if everyone starts the “race” in the same position, not everyone will finish first. Even assuming equal opportunity (that itself has a variety of meanings), intrinsic personal characteristics ensure unequal outcomes.

At the other extreme, libertarians tend not to be concerned with inequality unless the income or the wealth have been acquired through force or fraud. You have a fundamental

right to any property received via consensual contract or gift. This means that million-dollar contracts to baseball players, movie stars or bank presidents are on the same moral footing as any other voluntary transaction. In a free society, with few exceptions you may not interfere with the contracts of others and they may not interfere with yours. While libertarians encourage compassion and charitable giving, it is morally wrong to compel someone to give their rightly acquired property to others. Thus, for libertarians, the result of free and voluntary contracting and, as well, gifts and charitable giving will be the final distribution of income. The resulting degree of inequality may be a matter of interest but not of policy.

Canadian society in recent decades has been governed by ideas somewhere between the ideals of Socialists and Libertarians. Governments at all levels have a wide variety of tools and powers to interfere with the prevailing distribution of income. Ideally, they redistribute from the well-off to the less well-off. However, reputable economic studies suggest that much state redistribution involves the shuf-

Table 7: Distribution of total household income for years from 1951 to 1995 by quintile shares^A

Year	Bottom	Second	Middle	Fourth	Top	Year	Bottom	Second	Middle	Fourth	Top
1951	4.4	11.2	18.3	23.3	42.8	1980	4.3	10.7	17.8	25.2	42.0
1954	4.4	12.0	17.8	24.0	41.8	1981	4.6	10.9	17.6	25.2	41.8
1957	4.2	11.9	18.0	24.5	41.4	1982	4.6	10.8	17.4	24.9	42.3
1959	4.4	11.9	18.0	24.1	41.4	1983	4.4	10.3	17.1	25.0	43.2
1961	4.2	11.9	18.3	24.5	41.1	1984	4.5	10.4	17.2	25.0	42.9
1965	4.4	11.8	18.0	24.5	41.4	1985	4.6	10.4	17.0	24.9	43.0
1967	4.2	11.4	17.8	24.6	42.0	1986	4.7	10.4	17.0	24.9	43.1
1969	4.3	11.0	17.6	24.5	42.6	1987	4.7	10.4	16.9	24.8	43.3
1971	3.6	10.6	17.6	24.9	43.3	1988	4.7	10.4	16.9	24.9	43.2
1972	3.8	10.6	17.8	25.0	42.9	1989	4.8	10.6	16.9	24.5	43.1
1973	3.9	10.7	17.6	25.1	42.7	1990	4.7	10.4	16.9	24.8	43.2
1974	4.0	10.9	17.7	24.9	42.5	1991	4.7	10.3	16.6	24.7	43.8
1975	4.0	10.6	17.6	25.1	42.6	1992	4.6	10.3	16.7	24.8	43.6
1976	4.3	10.7	17.4	24.7	42.9	1993	4.7	10.2	16.4	24.7	43.9
1977	3.8	10.7	17.9	25.6	42.0	1994	4.7	10.2	16.7	24.8	43.6
1978	4.1	10.4	17.6	25.2	42.7	1995	4.7	10.2	16.4	24.5	44.1
1979	4.2	10.6	17.6	25.3	42.3						

^A Source: Statistics Canada, Income Distributions by Size (#13-207), various years.

fling of monies between middle-class families (see, e.g., Horry and Walker 1994). Nevertheless, governments in Canada do have an impact on the final distribution of income.

The data on inequality

What are the facts of inequality in Canada? Are incomes more equally or less equally distributed than before? How are earnings and consumption distributed? Is the gap between the rich and the poor growing?

The most common indicator of financial inequality is the distribution of income by quintile shares. As the name suggests, quintile shares show the percentage of income (or other financial variable) that is received by each quintile or 20 percent of the population once incomes have been ranked from top to bottom. Table 7 displays the quintile shares of total household incomes for Canada since 1951.

What is noteworthy here is the remarkable stability of quintile shares over this long period of time. The bottom 20 percent of the population in terms of household incomes receive roughly the same proportion of overall income as they did in the early 1950s, that is, about 4.5 percent. The top 20

percent is up slightly, but the ratio of the top to the bottom quintile shares has actually declined somewhat over the years.

There is often an initial inclination to condemn the apparent yawning gap between the top and bottom shares. Surely it is unfair that the top 20 percent of households receive 9 times the income of the bottom 20 percent? The economics of the life-cycle pattern examined earlier, however, explains much of the observed inequality. Even if everyone had the same lifetime income, because income rises with age, that is, with increased experience and responsibility, there would exist substantial income inequality at any point in time. In one simulation, I showed that such a pattern would result in the bottom quintile receiving 9.2 percent of income and the top, 31.6 percent (Sarlo 1996: 216).

Some people have higher incomes than others because they command a valued skill or hold jobs with greater responsibility. Professionals (architects, lawyers, doctors, engineers, and professors) earn more than those working in less skilled jobs (clerks, secretaries, truck drivers, and salesclerks). Skill differentials may account for much of the remaining observed inequality. It must be noted, however,

that the earnings differential, say, between professionals and other occupations on an annual basis is much higher than the lifetime differential. This is because the professional typically works (and earns) fewer years than the non-professional. In most cases, professional occupations require substantial education and training—what economists term “investment in human capital”—and professionals will, therefore, have a number of years of foregone income during the investment phase. As well, in many cases a large debt-load accrues to professionals, further reducing the apparent living standard differential.

Finally, not everyone is employed. Those who are retired, some of the disabled and some students are not in the labour force. Others are involuntarily unemployed. They want a job but cannot find one. On the high end, there are a small number of “superstars” (typically in the sports, entertainment, and business) earning enormous incomes. Both phenomena serve to stretch out the distribution of income and increase measured inequality. However, it needs to be emphasized that age and skill are capable of explaining most of the inequality in incomes.

The point has been frequently made that, if not for government transfers, measured inequality would have increased. On one level, this is clearly true. If unemployment benefits run out, for example, then welfare will often provide more income than the next best alternative—at least for the current period and this obviously means less inequality than might have prevailed. However, for someone who can work, the transfer may delay entry into employment and this may, over time, result in less income to the household. If this happens, then transfers end up increasing inequality. The more generous the transfers, the more likely it is that this moral hazard (*i.e.*, the tendency to relax one’s own efforts because of the security provided externally) will adversely affect inequality.

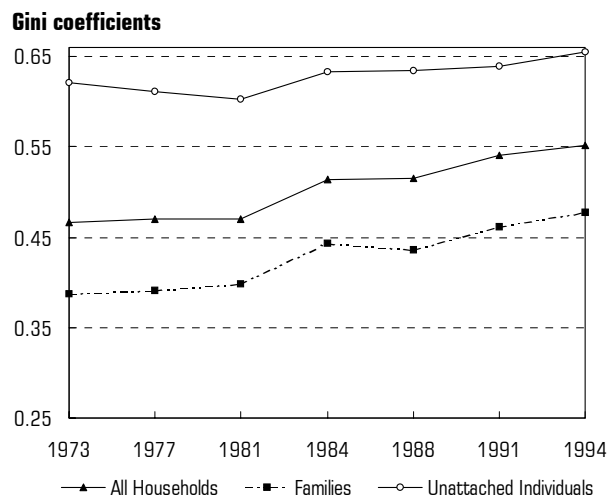
The Gini coefficient is another, very common, indicator of inequality. It is a measure that lies between 0 (perfect equality) and 1 (one person has all the income, everyone else has nothing). It is a very convenient measure because of its easy interpretation. The following series of graphs tracks the Gini coefficients for key variables over the period for which detailed information is available (1973–1994). Figure 17 displays the trend in inequality for total earnings of families, unattached individuals and all households; figure 18, for earnings only of households with positive earnings; figure 19 for total income and figure 20 for after-tax income.

In the real world, people constantly shift their income across time. Students borrow against expected future

income. Pensioners enjoy income saved during prime earning years. In addition, the State provides income transfers to people for a variety of reasons. Income, for a large number of Canadians, is much different from earnings. This is an important point. Not every household has earnings: students, seniors, and people on welfare will often have zero earnings, though not zero income. So we expect substantial inequality of earnings on that count alone. As well, total earnings are pre-tax, which further enhances the degree of inequality. So, in figure 17, we observe fairly high Gini coefficients at the beginning of the period, as expected. Then, the Gini coefficient trends upward over the next two decades, with a particularly sharp rise during the recession of the early 1980s. This evidence is consistent with the polarization results for the earnings of household heads in figure 13(a) and 13(b). Familiar economic explanations like the trend towards part-time work, structural economic change (especially, a reduction in the number of high-paying, lower-skilled manufacturing jobs), and the increasing generosity of social programs—all of which increase the number and proportion of households with little or no earnings—help explain much of the upward trend.

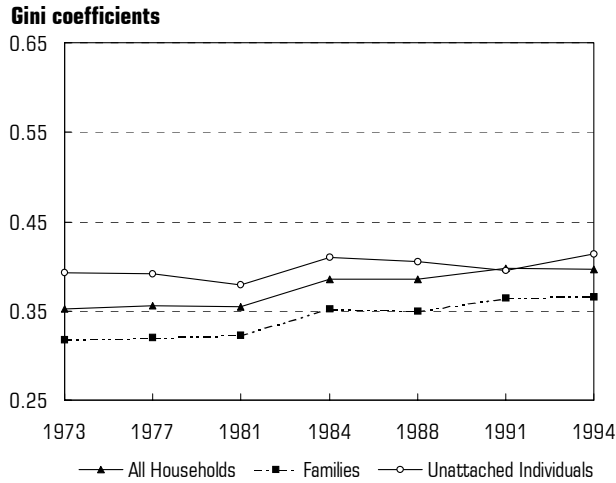
Figure 18 examines the trend in the Gini coefficient for the earnings of those households that had positive earnings. It is an interesting question whether earnings themselves are less equally distributed—as would be the case if bottom-end jobs simply paid less than before—or whether much of the increase in measured inequality is due to the fact that fewer households have any earnings at all. By removing those

Figure 17: Inequality trends—total earnings



Sources: Statistics Canada, Microdata File of Economic Families, various years, and calculations by author.

Figure 18: Inequality trends—earnings of units with positive earning only



Sources: Statistics Canada, Microdata File of Economic Families, various years, and calculations by author.

households with earnings of zero or less, we focus attention on the issue of the distribution of the earnings themselves as distinct from any demographic or labour-market changes. The first thing we notice is that the variable “positive earnings only” has Gini coefficients that are far lower than was the case with total earnings. It makes sense that there would be much greater equality if those without any earnings are excluded. However, the Gini coefficient still rises over the period and most of that rise occurred during the recession of the period from 1982 to 1983. So, it appears that at least some of the rise in earnings inequality is due, not to the fact that more households are without earnings, but to the fact that earnings themselves are less equally distributed. It may be that rising inequality of earnings is due, in large part, to increasing polarization of hours of work as more part-time work and short-term contracts appear simultaneously with more overtime in existing jobs. One common explanation is that the economics of hiring tends to work against new full-time jobs and in favour of more intense work in existing jobs.

Figures 19 and 20 show the trend in inequality for total income and after-tax income respectively. It is no surprise that after-tax incomes would be more equally distributed than pre-tax incomes. A progressive tax system with exemptions for the very poor tends to be equalizing. It is noteworthy that the Gini coefficients for total family incomes and after-tax incomes are essentially trendless over the period. For unattached individuals, the trend is clearly down. Most of the decline in inequality for single people occurred during

the 1970s, undoubtedly showing the impact of improved supplementary pensions for poor seniors. Overall, total pre-tax income and after-tax income of Canadian households are not more unequally distributed than was the case in the 1970s. This result conforms to the evidence provided by many others, including Beach and Slotsve (1996).

Does any of this evidence support the claim often heard that the gap between the rich and the poor is growing? It might, but only in a very simple-minded way. If everyone’s income is growing at the same rate, then everyone remains in the same relative position so there is no change in the standard inequality measures. However, the *absolute*



Figure 19: Inequality trends—total income

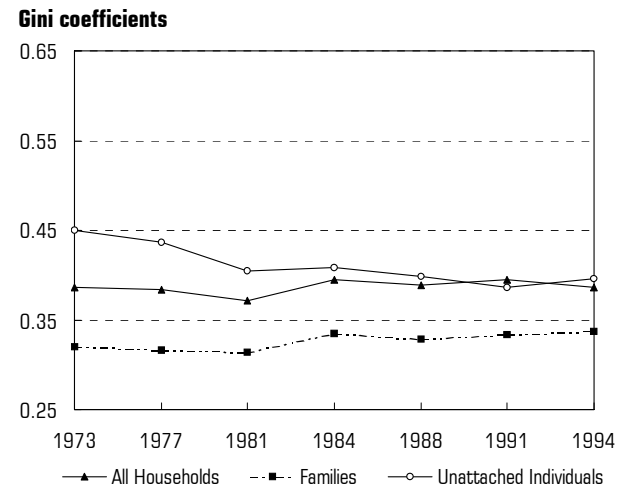
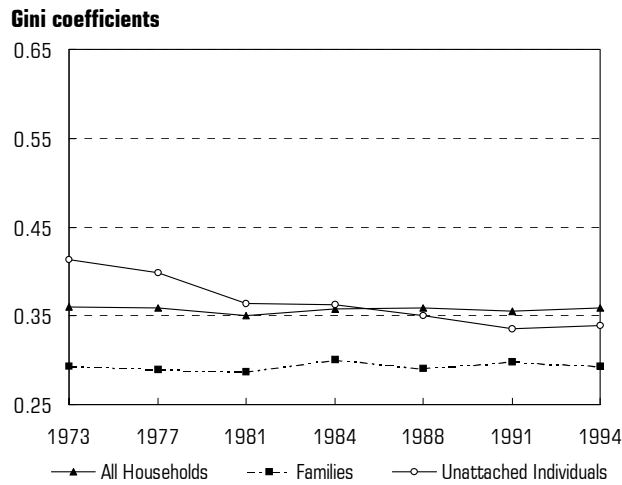


Figure 20: Inequality trends—incomes after tax



Sources: Statistics Canada, Microdata File of Economic Families, various years, and calculations by author.

- gap between the rich (however defined) and the poor (however defined) will increase. Indeed, the incomes of the poor could grow substantially faster than the incomes of the rich and the absolute gap would still rise.

However, in a more meaningful sense, the gap between rich and poor is not increasing at all. Some evidence for this has already been provided. Table 1, for example, shows that the average income of the bottom quintile of households has grown faster since 1973 than the average income of the top quintile. More importantly, the dramatic decline in real poverty since the 1950s (figure 5) tells us that many fewer Canadians, proportionately, are poverty stricken. This information, combined with evidence in figure 16 revealing that, while the number of rich has increased by almost two percentage points since 1973, the number of poor declined by four percentage points, clearly demonstrates that proportion-

ately fewer people in Canada are either rich or poor. Reduced polarization of the population, in this sense, suggests a lower and not a greater gap between rich and poor.

The best evidence contradicting the claim that the gap between the rich and the poor is growing, however, comes from an examination of the way people live—that is to say, from the consumption and the facilities that most contribute to their actual standard of living. More and more, people at the bottom of the income distribution enjoy the amenities and facilities associated with those who are well-off. For example, the clear distinction between wealth and poverty once signified by ownership of an automobile has all but disappeared. By and large, in our mass-consumption society, there is greater commonality than ever before in terms of dress, entertainment (especially television), housing, and food consumption.

Table 8a: Selected household facilities: ownership (percent) by bottom and top quintiles^A

	1980		1985		1990		1995		1996	
	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top
Freezer	34.1	65.9	36.7	72.9	40.5	71.8	35.6	71.2	37.8	71.2
Dishwasher	9.6	52.9	14.2	64.9	17.9	68.5	20.9	73.5	22.3	75.2
Air Conditioner	10.8	25.5	10.8	26.4	16.0	37.9	17.3	39.7	19.4	43.0
Colour TV	67.2	91.4	80.9	97.1	92.3	99.2	96.6	99.4	96.8	99.3
Cable TV	44.7	64.6	50.2	73.4	61.1	80.9	64.0	82.8	64.0	83.6
Automobile	48.6	95.0	44.7	94.0	50.2	92.2	48.4	88.8	47.7	88.4
VCR			7.1	40.2	36.8	86.1	59.3	95.0	62.2	95.9
Home Computer					5.9	32.4	11.9	52.6	13.7	56.6

Table 8b: Selected household facilities: change in ownership (percent) by bottom and top quintiles^A

	Change from 1980 to 1996		Change from 1985 to 1996		Change from 1990 to 1996	
	Bottom	Top	Bottom	Top	Bottom	Top
Freezer	10.85	8.04	3.00	-2.33	-6.67	-0.84
Dishwasher	132.29	42.16	57.04	15.87	24.58	9.78
Air Conditioner	79.63	68.63	79.63	62.88	21.25	13.46
Colour TV	44.05	8.64	19.65	2.27	4.88	0.10
Cable TV	43.18	29.41	27.49	13.90	4.75	3.34
Automobile	-1.85	-6.95	6.71	-5.96	-4.98	-4.12
VCR			776.06	138.56	69.02	11.38
Home Computer					132.20	74.69

^A Source: Statistics Canada, Cat. # 13-218, various

Along these lines, it is noteworthy that the ownership of key household facilities has increased by more in the bottom quintile than in the top quintile. In table 8b, we observe that, for eight important household items, the average percentage increase in ownership for the lowest quintile since 1980 has generally been much higher than the increase for the top quintile (table 8a shows the percent of the bottom and top quintiles that owned the facilities in selected years).

Examination of consumption trends by quintile tells a similar story. In table 9, the average level of current consumption by income quintile is given for the years 1948, 1969, 1978, 1982, 1986, and 1992. These are the years that Statistics Canada conducted the national family expenditure (FAMEX) survey and these data are derived from the published FAMEX tables. Roughly speaking and on average, the consumption level of households in the top quintile was 4 times that of those in the bottom quintile and this ratio has remained quite stable over the period. This is not a large differential and is particularly small when compared to the ratio between the largest and small-

est incomes (a ratio of 9.3 currently). Since households that are better off are also larger, the bottom half of the table shows the quintile distribution of consumption on a per-capita basis.

In this part of the table, we notice that the ratio between the top quintile and the bottom quintile is less than two! On a per-capita basis, the average top quintile household lives about twice as well as the average bottom quintile household. While per-capita consumption omits scale economies and these calculations ignore wealth (a household's net worth), it is still rather remarkable that there is such a small difference between the top quintile's and the bottom quintile's average per-capita consumption.

Finally, the most recent FAMEX survey (1992) provides some interesting comparisons between quintiles for key consumption items. In figures 21(a) to (h), direct comparisons of average spending by quintiles is made for food, shelter, clothing, personal care (such items as make-up, shampoo, toothpaste, haircuts), education, recreation, tobacco and alcohol, and personal taxes; figure 21(i) shows overall consumption.

Table 9: Consumption trends by household-income quintile for period from 1948 to 1992^A

Year	Bottom Quintile	Second Quintile	Third Quintile	Fourth Quintile	Top Quintile	Ratio of top to bottom quintile
Average current consumption						
1948^B	1,145	1,902	2,376	2,896	4,296	3.75
1969	2,657	4,744	6,417	7,947	10,920	4.11
1978	6,165	10,901	14,427	17,640	23,770	3.86
1982	8,460	14,759	19,478	24,752	33,816	4.00
1986	10,553	18,296	24,800	31,920	44,402	4.21
1992	14,442	23,178	30,790	38,789	54,882	3.80
Average current consumption per capita						
1948	622	677	707	789	1,053	1.69
1969	1,444	1,555	1,758	2,017	2,690	1.86
1978	3,523	4,275	4,551	5,158	6,339	1.80
1982	5,096	6,099	6,858	7,640	9,802	1.92
1986	6,596	7,920	8,702	9,791	12,368	1.88
1992	8,700	10,077	11,404	12,635	16,237	1.87

^A Source: Statistics Canada, Family Expenditure in Canada, Cat. # 62-555, various.

^B Note: all values for 1948 are approximations based on published income distribution ranges.

Quintile distribution of average per-capita expenditures (1992)

Figure 21(a): Food

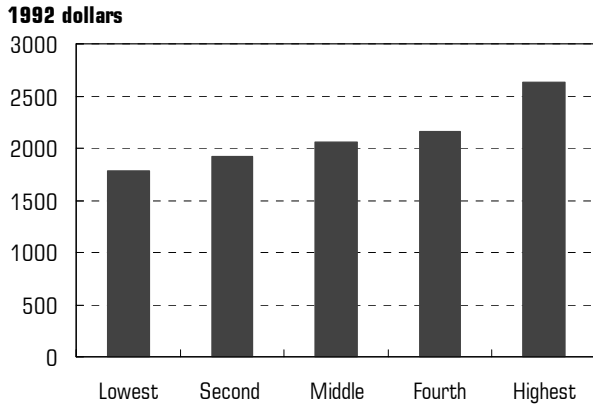


Figure 21(b): Shelter

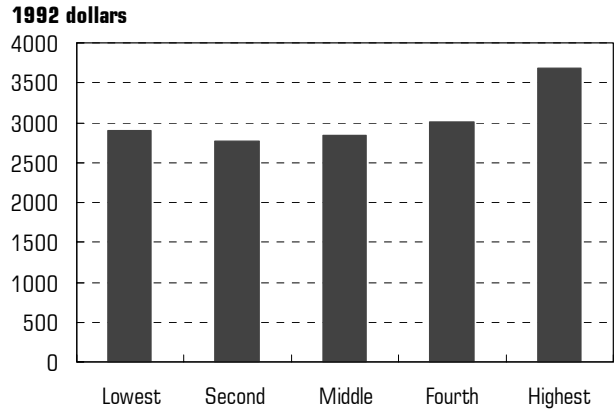


Figure 21(c): Clothing

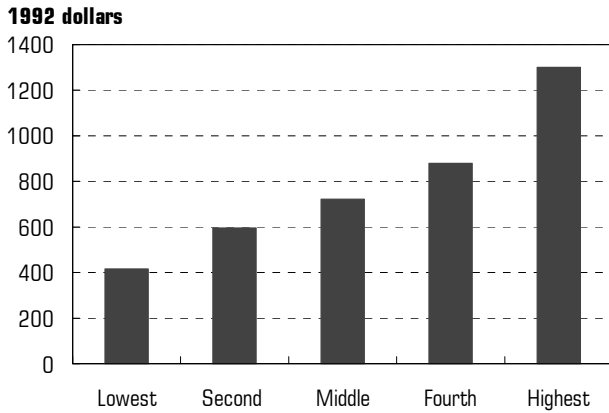


Figure 21(d): Personal care

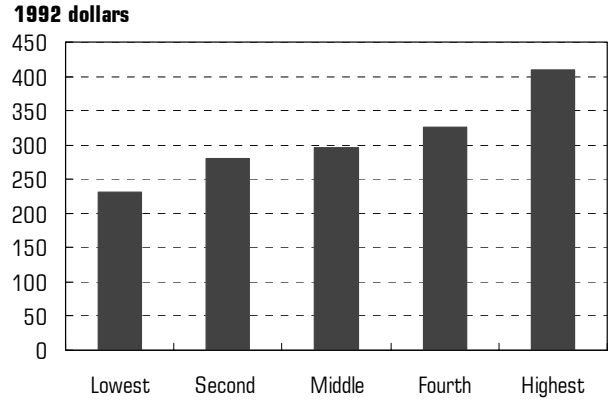


Figure 21(e): Education

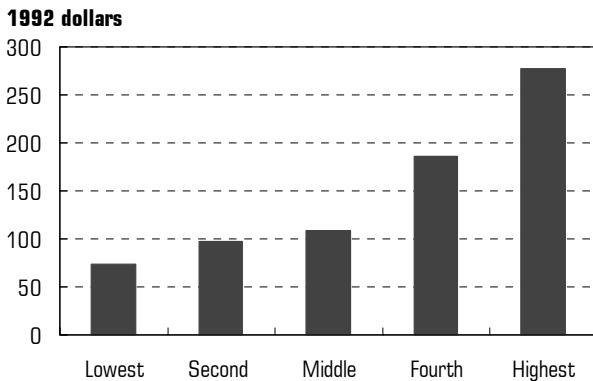
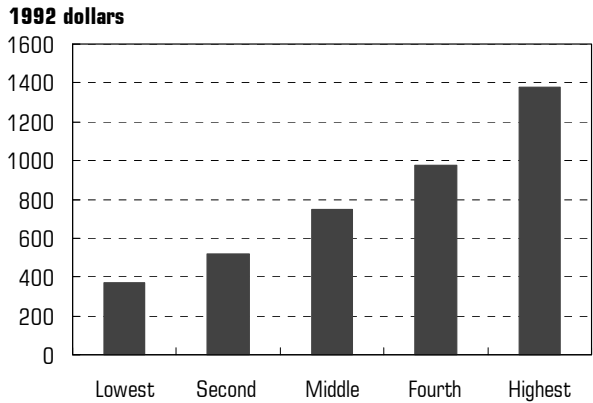


Figure 21(f): Recreation



Sources: Statistics Canada, Cat. No. 62-555, 1992.

Quintile distribution of average per-capita expenditures (1992), continued

Figure 21(g): Tobacco and alcohol

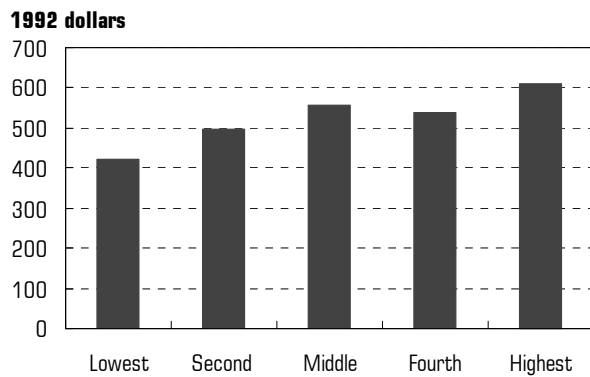
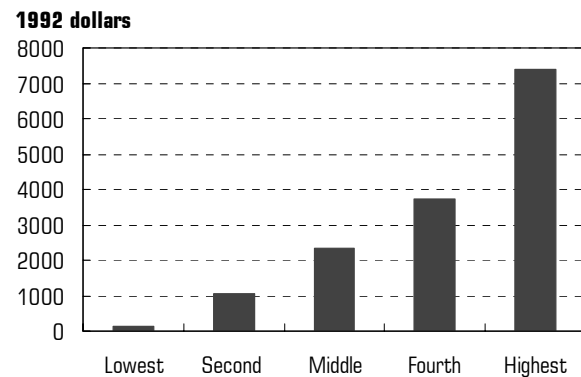


Figure 21(h): Personal taxes

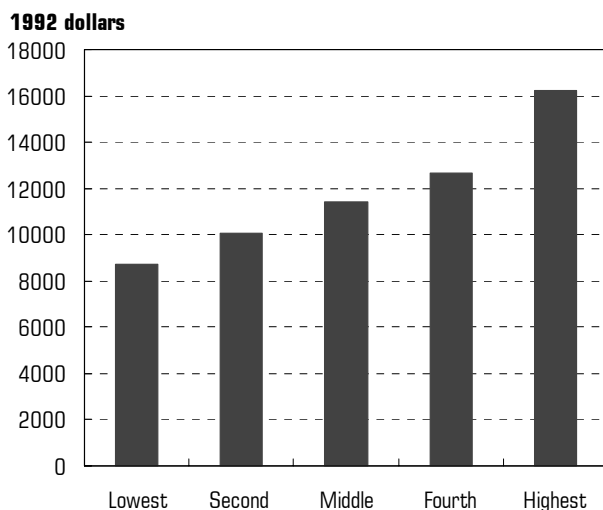


Sources: Statistics Canada, Cat. No. 62-555, 1992.

Average per-capita consumption of basic necessities such as food and shelter is surprisingly equal across quintiles. Average household per-capita spending on food (which includes spending at restaurants) by those in the top income quintile is only 48 percent more than those in the bottom quintile. With shelter, the per-capita cost differential among the first four quintiles is negligible. This reflects, to a large extent I believe, the economies of scale in shelter as families get larger and the positive correlation between income and household size. Spending on personal care, on a per-capita basis, is also not highly unequal.

There is substantial inequality in spending on clothing. The average per-capita expenditure of those in the top income quintile is three times that of those in the bottom quintile. Undoubtedly, the additional spending on clothing in the higher quintiles reflects both quality and quantity. Per-capita spending for both recreation and education is quite unequal: the ratio between the average per-capita spending on these items by the top quintile and the bottom quintile is about 3.7. This is not surprising, especially in the case of education, which is unlike most other commodities in that most households spend zero on education, not having dependents in private schools or attending post-secondary institutions. If we look just at those households that spent some positive amount on education in 1992, then the ratio between per-capita spending on education by the top and bottom quintiles is approximately one.

Figure 21(i): Total consumption expenditures (1992)



Sources: Statistics Canada, Cat. No. 62-555, 1992.

Average per-capita expenditure on tobacco and alcohol is remarkably equal across income quintiles. These values are absolute expenditures and not proportions of income. Clearly, these items have a consistent attraction across the board, with little regard to income. Not surprising at all is the per-capita spending on personal taxes. With a progressive tax system, we expect huge differentials in taxes paid. The average per-capita spending on personal taxes by the top income quintile is about 50 times the average spent by the bottom income quintile. Figure 21(i) presents the quintile distribution of overall average per-capita consumption in 1992.

Immigrants

Canada has benefited enormously from immigration over the years. It has brought to this country hard-working people eager for a fresh start. It has helped to fill the sparsely populated land mass of Canada and helped to give us the critical accumulation needed to be an important economic entity. Most of all, immigration has brought to Canada a wide diversity of ethnic groups enriching the cultural fabric of society. Heterogeneity is one of our most prized characteristics.

How have immigrants fared in Canada? How do they compare to those who were born here in income, level of education, and jobless rates? Are they more or less likely to be poor? Overall, how do the living standards of new Canadians compare to native-born Canadians?

Let us begin with poverty. Figure 22 displays the poverty and near-poverty rates of immigrants (dashed line) and the Canadian-born (solid line) over the period 1973 to 1994. For most of the period, immigrants had lower poverty and near-poverty rates.

From 1973 to 1988, immigrants were less likely than non-immigrants to have reported incomes below the poverty line and less likely to have reported incomes below twice the poverty line. Since 1988, however, poverty rates for immigrants have moved above, and near-poverty rates have become equal to, the corresponding rates for the Canadian-born. This may reflect stricter regulations for immigrants and refugees as far as employment is concerned. More broadly, it suggests that immigrants, when compared to those born in Canada, are seen to be having a more difficult time than they used to.⁸ Despite this, it is important to emphasize that throughout the 1970s and 1980s, immigrants were less likely to be poor than other Canadians. They had to overcome the language barrier in most cases and make significant adjustments to Canadian conventions and customs. As well, many faced discrimination. Their superior ability to avoid poverty is all the more remarkable.

What other evidence is available regarding the relative performance of immigrants is fairly consistent with this

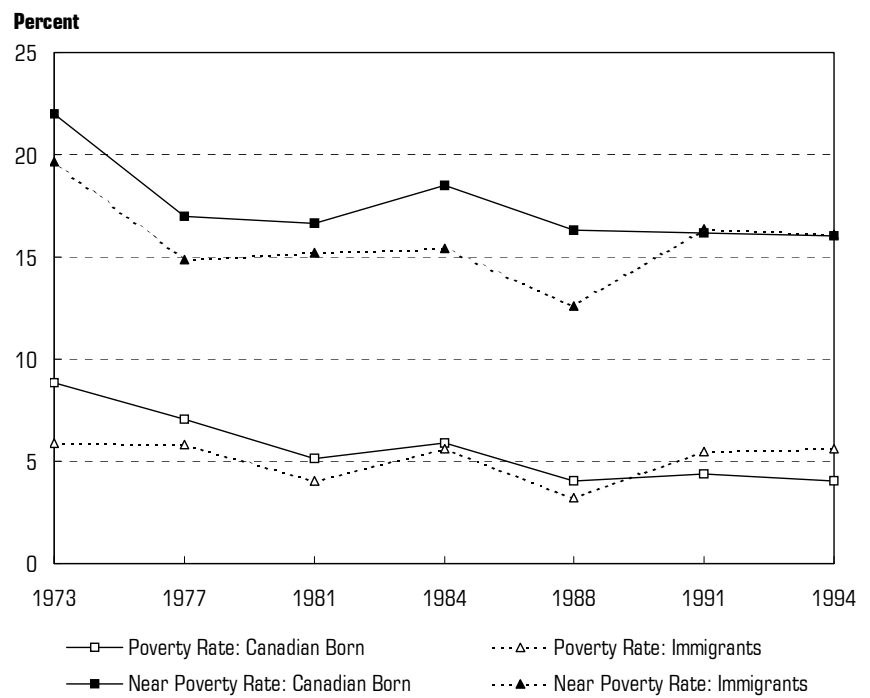
result. For example, immigrants are better educated than those born in Canada; they have higher incomes; their families are much less likely to be headed by a single woman. And, their incomes are higher even when we control for education level. These and other data are displayed in table 10.

As with the poverty data, the rate of unemployment is an area of concern. Where once immigrants had a substantially lower unemployment rate than other Canadians, now their rate is higher. This change in circumstance has no easy explanation. Nevertheless, overall, immigrants to Canada continue to have an enviable record of success.

The elderly

The current cohort of Canada's senior citizens is better off than seniors at any other time in the past. Rapidly rising living standards and enhanced public supplementary pensions for low-income seniors have greatly improved the lot of those over 65 years of age. Seniors are not only better-off financially but are also living longer, have better health-care facilities available, and are generally more active than ever before.

Figure 22: Poverty and near-poverty rates of the Canadian-born and of immigrants, 1973 to 1994



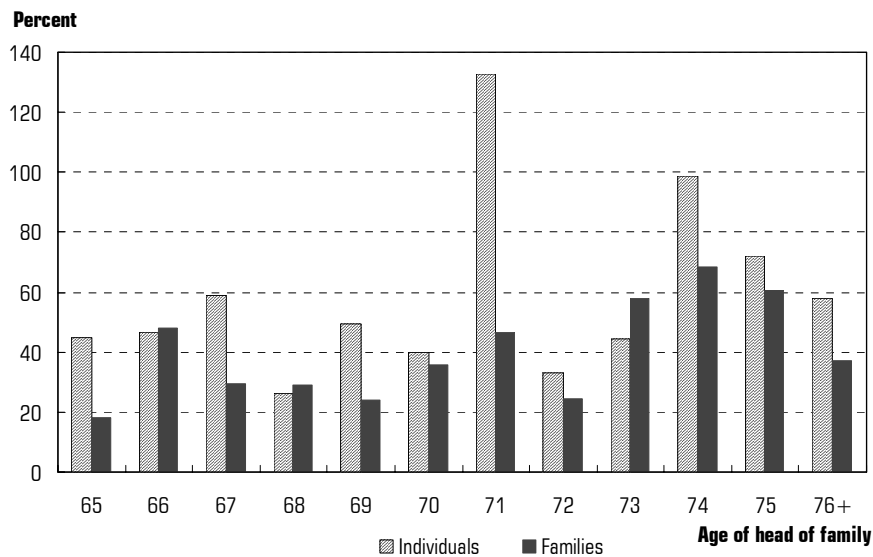
Sources: Statscan, Microdata File of Economic Families, various; calculations by author.

Table 10: Selected labour-market characteristics of the Canadian-born (CB) and of immigrants (Imm) for 1973, 1984, and 1994^A

		1973	1984	1994
Average annual family income (\$)	CB	12,406	35,284	53,837
	Imm	13,031	37,640	55,347
Average annual income of unattached individuals (\$)	CB	5,109	15,698	24,008
	Imm	5,085	15,782	22,266
Average annual family earnings (\$)	CB	10,836	28,023	42,455
	Imm	11,306	30,544	43,285
Average annual earnings of unattached individuals (\$)	CB	3,901	10,970	15,997
	Imm	3,700	9,845	13,446
Proportion of families with employed wife (%)	CB	36.71	49.50	55.50
	Imm	40.95	50.83	51.63
Unemployment rate of family heads (%)	CB	5.19	8.58	8.57
	Imm	2.78	8.84	9.98
Proportion of family heads working full-time (%)	CB	82.31	75.41	70.76
	Imm	79.66	74.54	66.46
Average annual earnings of family head (\$)	CB	8,213	19,371	27,608
	Imm	8,272	19,648	25,703
Average age of family head (years)	CB	44.15	44.76	45.92
	Imm	47.59	48.36	49.15
Proportion of family heads with more than high-school education (%)	CB	20.07	28.77	43.05
	Imm	25.55	36.56	46.76
Proportion of family heads with university degree (%)	CB	6.83	11.62	14.21
	Imm	9.40	18.10	19.73
Annual income of families whose head has high-school education or less (\$)	CB	11,411	31,065	45,729
	Imm	11,947	33,181	47,991
Unemployment rate for family heads with high-school education or less	CB	6.15	10.46	11.01
	Imm	3.60	10.22	13.27
Proportion of families headed by single mothers	CB	7.14	9.62	10.13
	Imm	4.60	7.75	8.47
Average family size	CB	3.70	3.19	3.03
	Imm	3.47	3.38	3.32
Percent of families that are homeowners	CB	68.94	70.96	74.13
	Imm	73.70	72.53	71.71

^A Source: Statistics Canada, Microdata File of Economic Families for 1973, 1984 and 1994, and calculations by C. Sarlo.

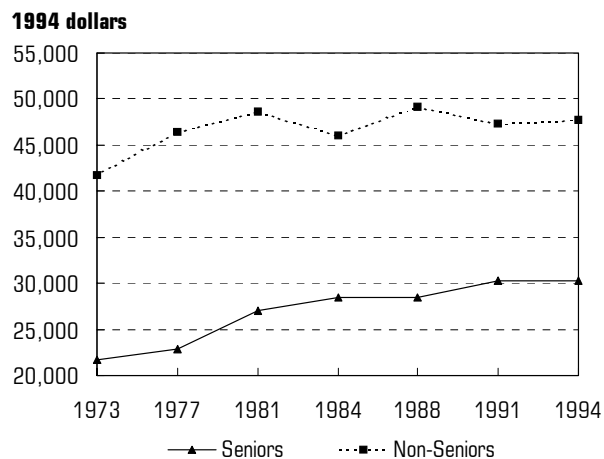
Figure 23 Changes in real income by age of senior (1973–1994)



Sources: Statistics Canada, Microdata File of Economic Families, various years.

In 1994, seniors had higher real incomes at every age level than their counterparts in 1973. Figure 23 shows the changes in the real incomes by age of households headed by a senior—both families and unattached individuals—from 1973 to 1994: the average senior household is roughly 40 percent better off in terms of real incomes than it was two decades earlier. This far outstrips the typical gain for non-seniors (see figure 11). This relative gain can be seen more directly in figure 24, which shows the trend in average household income from 1973 to 1994 for seniors and non-seniors.

Figure 24: Real household income, seniors versus non-seniors



Sources: Statistics Canada, Microdata File of Economic Families, various, and calculations by author.

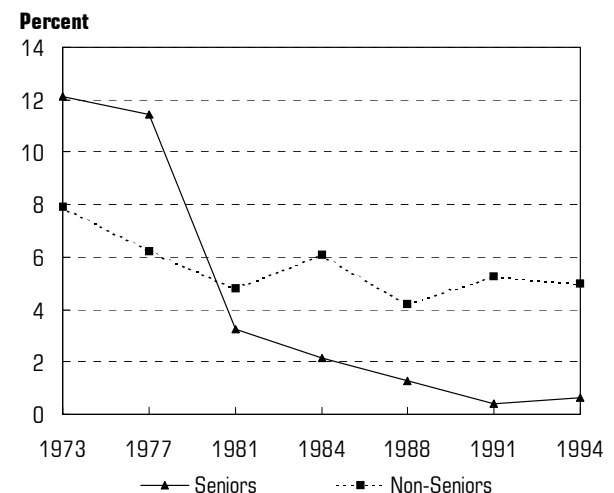
The life-cycle hypothesis of income and consumption predicts that seniors' incomes will be lower than that of non-seniors. Most seniors are not employed and have no earnings. They typically live on pensions, part of which will have been generated by their own past savings. Their consumption is typically reduced, most having no mortgage payments and no children at home. It is easy to see in figure 24 that, while the gap in incomes is, as expected, still substantial, it has declined markedly over two decades. In 1973, seniors had, on average, one-half the income of non-seniors. By 1994, the ratio had risen to almost two-thirds.

Consistent with these data, the poverty rate for seniors has decreased dramatically over the period. As we see

in figure 25, the senior's poverty rate was actually above that for non-seniors in the 1970s. However, by 1981, the senior's rate had dipped below that for non-seniors and is now almost insignificant. Canada's means-tested supplementary public pensions and the welfare system (as a last resort) virtually guarantees that no elderly person will be living in poverty.

The net effect of the many influences on seniors' incomes has tended to be equalizing over the period from 1973 to 1994. Indeed, as seniors' incomes have become somewhat more compressed, the incomes of non-seniors

Figure 25: Poverty trends, seniors versus non-seniors



Sources: Statistics Canada, Microdata File of Economic Families, and author.

Table 11: Gini coefficients for total household income for selected years from 1973 to 1994^A

Year	Seniors	Non-Seniors
1973	.4383	.3559
1977	.4468	.3513
1981	.4086	.3479
1984	.4105	.3733
1988	.3815	.3677
1991	.3926	.3857
1994	.3656	.3807

^A Source: Statistics Canada, Microdata File of Economic Families, various.

has become somewhat more dispersed. Table 11 displays the Gini coefficients for total household income for both seniors and non-seniors.

In terms of household facilities, the standard of living of Canada's seniors is quite comparable to non-seniors. For a number of key items, such as colour television, cable television, air conditioning and freezers, ownership by seniors is equal to, or greater than, that for all households (see table 12). It is understandable, partly because of restricted income but mainly because those of the seniors' generation are unfamiliar with the technology, that facilities such as automobiles, home computers and even video cassette recorders are somewhat less common in the households of seniors.

Seniors' overall consumption, on a per-capita basis, is comparable to that of non-seniors, although the composition is different. As we see in table 13, in the most recent (1992) family expenditure survey the total per-capita consumption by households headed by seniors was found to be about 96 percent that of all households. That percentage is about the same as it was in 1969 but is higher than was the case in 1978 and 1986.

While seniors spend about the same, per person, as households in general, they tend to spend more on food and shelter and less on other items, especially clothing, tobacco and alcohol, and recreation. This compositional difference is not surprising: the extra spending by seniors on food and shelter has to do largely, I think, with economies of scale in living. Food preparation for smaller units (mainly one- and two-person households) will be somewhat more expensive per person than for larger units as small households are less able to take advantage of volume purchasing, "family packs," and the lower price per unit of larger-sized items. As

Table 12: Percentage of senior-led households and all households owning selected household facilities in 1996^A

Household Facility	Senior-led Households	All Households
Freezer	61.4	57.1
Dishwasher	40.7	47.7
Air Conditioning	32.6	29.3
Colour TV	99.2	98.5
Cable TV	73.9	74.0
Automobile	67.2	74.9
VCR	61.6	83.5
Home computer	10.4	31.6
Average annual income (\$)	33,351	48,085

^A Source: Statistics Canada, Cat. # 13-218, 1996.

well, seniors' households are composed almost exclusively of adults, whereas many other households have young children who will consume less food than adults. Finally, some seniors may have special diets that require additional expenditures. While spending on food includes food purchased at restaurants, it is the case that seniors' households spend about 40 percent less per capita at restaurants than households in general (Statscan 1992). The economies of scale regarding shelter are clear: the additional or marginal cost of housing declines dramatically after the first person is housed (see table 13).

Regional living standards

It is now well known that some regions of Canada are performing less well economically than others. The Maritimes and Quebec have, in many respects, "underperformed" relative to the rest of Canada. As table 14 reveals, there are, indeed, significant differences in the economic performance of Canada's 5 regions.

Average incomes (family incomes in 1961 and total household incomes afterwards) have consistently been lowest in the Maritimes and highest in Ontario. Since the early 1980s, the average incomes in the Prairies have moved up relative to incomes in other regions, due largely to the oil boom in Alberta. However, average income is not a good indicator of relative living standards for regions because it ignores differences in living costs. It is clear that costs—especially the cost of shelter—varies considerably across the nation. The cost differential is sufficiently significant that the same family could enjoy a higher living standard on, say, an income of

Table 13a: Average per-capita expenditures (constant 1996 \$) on selected items by senior-led households^A

	1969	1978	1986	1992
Average household size	1.81	1.83	1.68	1.66
Annual pre-tax income	19,041.00	24,786.00	27,968.00	29,223.00
Food	2,349.48	2,643.79	2,613.17	2,507.43
Shelter	2,126.79	2,560.19	3,165.14	3,449.76
Clothing	657.02	750.78	809.72	679.52
Personal Care	226.95	227.50	304.76	339.45
Tobacco and Alcohol	326.49	383.50	439.31	477.38
Recreation	305.93	488.39	630.60	708.10
Total Consumption	8,816.69	10,532.17	12,368.77	12,665.39

^A Source: Statistics Canada, Family Expenditure in Canada, Cat. # 62-555, various.

Table 13b: Average per-capita expenditures (constant 1996 \$) on selected items by all households^A

	1969	1978	1986	1992
Average household size	3.28	2.93	2.72	2.62
Annual pre-tax income	36,435.00	47,704.00	48,565.00	48,654.00
Food	2,108.27	2,650.93	2,509.63	2,306.95
Shelter	1,715.56	2,544.67	2,843.56	3,287.19
Clothing	918.88	1,079.73	1,108.89	901.52
Personal Care	242.16	259.90	339.92	343.43
Tobacco and Alcohol	426.48	510.15	564.71	572.07
Recreation	388.72	787.92	886.60	933.17
Total Consumption	8,974.78	12,102.85	13,013.25	13,151.99

^A Source: Statistics Canada, Family Expenditure in Canada, Cat. # 62-555, various.

\$30,000 in a small rural or seaboard community than on an income of \$40,000 in a large expensive city. Thus, while the change in a region's average income over time is of some interest—we note that average income in the Maritimes has been growing somewhat faster than average incomes in Ontario in recent decades—the *level* of income and the relative rankings do not indicate very much by themselves.

The unemployment rate is an indicator of importance. The Maritimes have had an unemployment rate that is chronically higher than other regions in Canada. It is a relatively depressed area in which economic growth and job creation proceeds more slowly than in the rest of Canada. The poverty rates and the relative population growth confirm this conclusion. For example, since 1961 the population of the Maritimes has grown less than half as fast as the overall Canadian average and the population of Quebec,

about two-thirds as fast. The poverty rates, again using my own basic-needs poverty lines that explicitly take regional cost differences into account, tell a particularly meaningful story. In the 1960s and 1970s, the Maritimes have the highest poverty rates in the country by a fair margin, consistent with its relatively depressed status. Despite continuing slow growth and high unemployment, however, poverty in the Maritimes has fallen more quickly than in other regions, to the point where the Maritimes no longer have the highest incidence of poverty but now rank after British Columbia, where very expensive housing in recent years has resulted in high poverty lines and correspondingly high poverty rates. The low poverty rate in the province of Quebec is also puzzling given its relatively high unemployment rates, although substantially lower housing costs in Quebec resulting in lower poverty lines may help explain this outcome.

Table 14: Regional trends, 1961, 1973, 1984, and 1994^A

	Region	Average annual family income	Unemployment rate (%)	Poverty rate (%)	Population (1000s)	Measure of income inequality
1961	Maritimes	4,369	11.2	32.9	1,897.4	n.a.
	Quebec	5,654	9.2	17.1	5,259.2	n.a.
	Ontario	6,167	5.5	16.1	6,236.1	n.a.
	Prairies	5,422	4.6	19.7	3,178.9	n.a.
	British Columbia	5,778	8.5	21.0	1,629.1	n.a.
	All provinces	5,704	7.1	21.6	18,200.7	0.385
1973	Maritimes	8,659	8.9	12.3	2,135.4	0.3758
	Quebec	10,019	7.4	7.7	6,235.2	0.3857
	Ontario	11,584	4.0	7.7	8,094.4	0.3730
	Prairies	9,629	3.9	9.6	36,54.5	0.4065
	British Columbia	11,171	6.5	7.0	2,377.6	0.3785
	All provinces	10,694	5.6	8.3	22,497.1	0.3862
1984	Maritimes	26,210	15.5	7.9	2,311.8	0.3730
	Quebec	28,080	12.9	4.0	6,654.7	0.3893
	Ontario	32,048	9.0	5.3	9,206.2	0.3695
	Prairies	29,835	9.7	5.8	4,491.3	0.3831
	British Columbia	29,381	14.8	7.9	2,960.6	0.3887
	All provinces	30,240	11.3	5.6	25,624.6	0.3942
1994	Maritimes	38,009	14.9	6.3	2,407.4	0.3816
	Quebec	39,433	12.2	2.8	7,287.1	0.3907
	Ontario	48,623	9.6	3.7	10,936.4	0.3797
	Prairies	42,514	8.4	4.6	4,856.5	0.3830
	British Columbia	44,554	9.4	6.9	3,669.5	0.3925
	All provinces	44,382	10.4	4.4	29,156.9	0.3867

^A Source: Statistics Canada, Microdata File of Economic Families, various; Statistics Canada, Cat. # 11 - 516E, Historical Statistics of Canada, 2nd edition, 1983; Poduluk (1968); Canadian Economic Observer, Historical Supplement, 1995/96.

Figure 26 displays real household consumption for selected years over the post-war period. Again, one must not associate a region's ranking or actual level of average consumption with its underlying standard of living. In regions where costs are lower, consumption levels will naturally tend to be lower, *ceteris paribus*. Thus wage levels, incomes, and consumption levels do not inform us directly about living standards. What is noteworthy here is that the general pattern of real consumption in the regions follows closely the overall Canadian trend shown in figure 8; that is, strong improvements up to 1978 and modest, if any, change there-after. No region has been immune from the relative stagnation in living standards since the 1970s.

Wealth

Wealth or a household's net worth plays an important role in determining material living standards. The ownership of financial and non-financial assets (ownership net of debt, of course) bestows benefits that cannot be captured in income or consumption patterns. We may reasonably argue, for example, that owning a home, having \$50,000 in a mutual fund, and having a good pension plan gives a household a higher standard of living than not having those assets even if income and consumption are the same. The benefit of wealth may be largely psychic: one "feels better off" having assets such as a home and a good pension plan than not having them. While

- wealth is not a major determinant of the standard of living as it omits any consideration of what and how much people consume from day to day, it is certainly a component.
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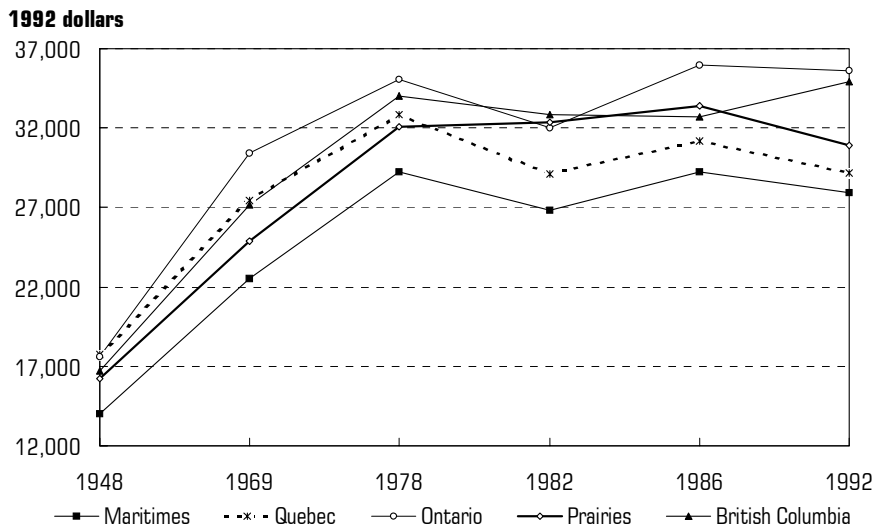
The life-cycle hypothesis suggests that wealth will have a pattern strongly influenced by age and will be even more unequally distributed than income. We also expect that the ratio of financial wealth to non-financial wealth would increase with age. In a major study of wealth in Canada (Oja 1987: 16), Statistics Canada found that between 1970 and 1984, real household wealth almost doubled. Oja concluded:

Wealth holdings conform to a predictable pattern based on the life-cycle hypothesis of saving; that is, the youngest age group holds the least wealth, the middle-aged group holds the most and the wealth of the elderly lies between these two extremes, reflecting some depletion of savings after retirement. This pattern seems firmly established and has been observed in all Canadian data (1987:16).

Regrettably, there is no reliable, detailed, and continuous data on household net worth.

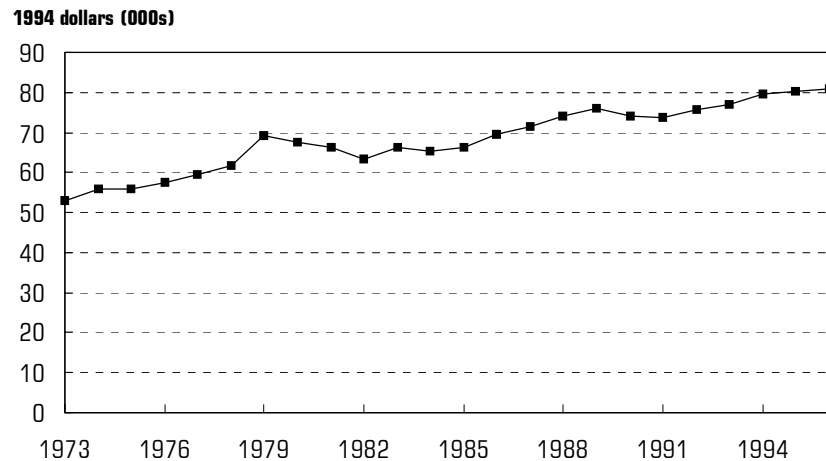
Statistics Canada's surveys on the wealth of Canadians are very occasional and none have been conducted in recent years. The National Accounts provide an aggregate estimate of net worth on an annual basis, which is a second-best source of information. The major problem, of course, is that these data allow no examination of distributional aspects of wealth. Figure 27 tracks the net worth of Canadian persons and unincorporated businesses on a per-capita basis and in real (1994) dollars drawn from the National Balance Sheet Accounts. About 90 percent to 95 percent of total Canadian net worth comes from persons and unincorporated businesses. Corporations, governments, and other institutions account for the rest. The major assets composing the wealth of persons and unincorporated businesses are currently, in order of importance: homes and land; cash and deposits (including Guaranteed Investment Certificates); life insurance and pensions; shares (equities); and durable goods. On a real per-capita basis, net worth has increased only modestly (16 percent) since 1979, a picture consistent with other evidence (income, consumption, poverty rates, etc.) of the relative lack of economic progress in recent years.

Figure 26: Average real household consumption by region



Source: Statistics Canada, Family Expenditures in Canada, Cat. No. 62-555, various.

Figure 27: Real net worth per capita, 1973-1996



Source: Statistics Canada, National Balance Sheet Accounts, various, Cat. No. 13-214.



Towards an index of living standards

There is no one indicator that can perfectly capture what is happening to living standards. Real consumption per capita is very important, in my view, but it omits from consideration wealth (both human and non-human). As well, real consumption data are only available occasionally. Actual income, which continues to be a favoured indicator, is badly flawed for all the reasons mentioned earlier (page 7) and because it ignores regional differences in the cost of living and the life-cycle pattern. One of the advantages of the poverty rate as an indicator is that it explicitly takes living costs into account in measuring who is poor and who is not.

When we stand back and look at the whole array of influences, we will observe an impressive upward movement to the mid-1970s. After that the story is increasingly ambiguous. For example, real incomes, real wealth per capita, and real consumption level off after the late 1970s while human capital, ownership of key household facilities, and the proportion of non-poor have continued to improve. As an offset, the unemployment rate has trended upwards since the late 1970s. Overall, examining the various components individually, it is not clear what has happened to living standards over the past two decades. It is desirable, therefore, to combine the most relevant factors into an index in order to determine what the “net” effect has been.

I suggest that a simple index of 8 components with each part equally weighted be a starting point to the construction of a single indicator of living standards in Canada.⁹ The following components are included:

- (1) real household consumption per capita
- (2) real household income per capita
- (3) percentage of the population that is not poor
- (4) index of household facilities
- (5) percentage of the population with a post-secondary degree or diploma
- (6) one minus the unemployment rate
- (7) life expectancy
- (8) indicator of household wealth (net worth per capita).

Each of these components measures, in its own way, changes in Canadian living standards. The first 4 items directly show the changes in the most obvious and visible signs of the “standard of living.” The focus of attention with this group of indicators is clearly on material well-being. Similarly, the eighth item, a proxy for the wealth of Canadians, directly measures an aspect of material well-being. The fifth component, the proportion of the population with higher education, shows to some extent the changes in “potential” living standards as they are intimately linked to investments in human capital. It also reflects, however, the view that higher education improves the quality of life—directly as a form of personal growth and development and indirectly as an external benefit to society.

Both the unemployment rate (6) and the life expectancy indicator (7) are imperfect yet useful indicators. Higher unemployment still represents a permanent loss of output and a waste of human resources despite the problem of moral hazard. While there are definition and measurement issues that present difficulties with the inclusion of this component, it would be hard to argue that, over time, a decline in the unemployment rate would not improve living standards. Similarly, while it would be preferable to have an indicator of “good-health life expectancy,” that information is currently not available for the time period under scrutiny. The standard measure of life expectancy is an imperfect proxy for health standards.

Some discussion of issues and problems related to the construction of an index is needed. First, there might be concern that some of the components are “collinear”: income and consumption, for example and, as well, income and wealth and/or facilities will tend to move along together. This should not be a concern, however, in determining an index since we are attempting to capture the overall net movement of a variety of influences that affect the standard of living (Oja 1987: 16). There is no requirement for the factors to be independent of each other. Other indexes such as the Consumer Price Index and the Toronto Stock Exchange 300 index combine items that are broadly representative of the phenomena under consideration but have components that

- are highly correlated. So, unless we are talking about explanatory variables in an econometric model, there should not be concern about collinear components in an index.

- An interesting theoretical issue is related to the accounting identity:

$$\text{Income} = \text{Consumption} + \text{Saving}$$

If income rises, the index of living standards also rises. There is no problem with that. But the rise in income also pushes up either consumption or savings or both. The rise in consumption will also raise the index. Further, while savings is not a factor in the index, wealth is and presumably the rise in savings will be reflected in the wealth component. Is this not double (or even triple) counting! Not at all. Each of the components affects living standards somewhat differently and it is appropriate that each should be included separately. While consumption is commonly regarded as the key variable in improving living standard, income represents potential consumption and wealth represents, at one and the same time, both insurance against income instability and a sort of psychological sense of belonging to the mainstream. Clearly, rises in any of these factors contributes separately to living standard improvement.

Second, income itself and, to some extent, each of the other data series in the index, is subject to substantial error in measurement (see page 7). Under-reported incomes and the underground economy results in a significant underestimate of true income. As well, a variety of other considerations such as in-kind income, student loans, part-year families and the omission of most aboriginals living on reserves further undermines the accuracy of the raw data. The net effect of these influences resulted in reported incomes that understate the true level of income and that the degree of understatement is likely to be growing.

Finally, recall the earlier discussion of the measurement problem as it relates to “real” variables, such as real income. Because standard price deflators may not fully account for quality improvements in products and may not adequately incorporate new products into price indexes, we are left with an underestimate of real income and other variables that have been “deflated” by a price index. This consideration is an additional argument for including other factors besides income and consumption into a living standards index.

The selection of index components is largely a matter of convenience. We ask the question: which factors have a clear impact on Canadian living standards and are available in some reliable statistical form over a period of time? The items in the list appear to satisfy this test for inclusion.

A rise in any one of these components will improve living standards. A strong rise in one component may offset modest declines in other components and a marked decline in one component may offset modest rises in other opponents. One practical difficulty in constructing such an index is that the data available for each component do not match perfectly the data for the other components. Most of the data are on hand for the years 1973, 1977, 1981, 1984, 1988, 1991, and 1994. Data on consumption, however, are available only for 1969, 1978, 1982, 1986, and 1992. Rather than omit consumption from this preliminary exercise, it is preferable to use simple interpolation of available data as a way to resolve the mismatch. Similarly, simple interpolation is used to estimate the values between missing periods for life expectancy, which is intended to capture the “health” component of the standard of living. Henceforth, index updates could be geared to Famex survey years.

The choice of pre-tax over after tax income is deliberate: one can view taxes as payment for the various government programs and services (such as roads, health insurance, pensions, policing, and international peace-keeping) that do have utility and contribute to well-being. Since we are aggregating in any case, pre-tax incomes can serve as a gauge of both the contribution to living standards of government services (including the debt-service component) *and* the contribution to living standards of the private choices made by households with their disposable income. The taxes we pay include the psychic value of having public insurance, allowing us to sleep better, for example, in the knowledge that a medical emergency will not result in bankruptcy. This way of viewing government services does not, of course, mean to imply that the state is the best way to deliver those services.

Ideally, changes in the leisure time available to Canadians should be included in a standard of living index. More free time generally has great utility and improves well-being. However, social surveys examining the use of time in Canada are relatively new and there is little comparative data available at this point. What is available suggests that, on average, leisure time is increasing—a contradiction of the popular impression that it is in decline. Between 1986 and 1992, Statistics Canada’s General Social Survey reveals that free time (total time minus time working, paid or unpaid; time at school; and time spent sleeping, eating and on personal care) rose from 5.5 hours per day to 5.7 hours per day. This result confirms a American study over the longer term, which shows a clear increase in free time in that country (Toronto Star 1997: A18). The popular perception that people are busier and more stressed, and other surveys in

Category:	1973	1977	1981	1984	1988	1991	1994
Real household income per capita (\$)	13,492	15,734	17,367	17,045	18,853	18,717	18,757
Index	77.69	90.60	100.00	98.15	108.56	107.77	108.00
Real household consumption per capita (\$)	12,003	11,811	11,818	9,201	12,632	12,328	12,624
Index	101.57	99.94	100.00	77.86	106.89	104.32	106.82
Percentage of population not poor (%)	91.7	94.4	95.4	94.4	96.1	95.4	95.6
Index	96.12	98.95	100.00	98.95	100.73	100.00	100.21
Index of household facilities	174.8	286.4	320.2	356.4	426.0	461.3	483.7
Index	54.59	89.44	100.00	111.31	133.04	144.07	151.06
Post-secondary education (%)	9.80	20.72	22.74	24.16	28.36	37.70	42.26
Index	43.10	91.12	100.00	106.24	124.71	165.79	185.84
1 minus unemployment rate (%)	94.5	91.9	92.4	88.7	92.2	89.6	89.6
Index	102.27	99.46	100.00	96.00	99.78	96.97	96.97
Life expectancy (years)	73.25	74.25	75.39	76.20	77.00	77.80	79.5
Index	97.16	98.49	100.00	101.07	102.14	103.20	105.45
Wealth	52.92	59.51	66.2	65.3	74.06	73.75	79.7
Index	79.98	89.94	100.00	98.69	111.92	111.46	120.45
Summary	652.47	757.93	800.00	788.26	887.78	933.56	974.80
Overall index	81.56	94.74	100.00	98.53	110.97	116.70	121.85

Source: calculations by author.

which many respondents complain that they never seem to have enough time is hard to reconcile with these time-use results. One expert (Toronto Star 1997: A18), Roger Mannell of the University of Waterloo suggests that people feel rushed because they are trying to fit more into their leisure time and because they watch so much television. In any case, more data is needed before leisure time can be included in the index of living standards.

The issue of continuity raises some interesting questions. The facilities component of the index comprises some items that are still growing in popularity as well as some that appear to have "plateaued." What about new household facilities that will be coming onto the market in the future? How will they be included in the index? The problem of substituting new items in an index and dropping existing items while maintaining the usefulness of the index is very

difficult though, clearly, there are ways to do this (e.g., the consumer price index and the various stock-market indexes). As I have already pointed out, the problem of ignoring quality changes makes any of the real values in the index less and less reliable as time goes on.

It is important to stress that this is a preliminary attempt to devise a useful index of Canadian living standards for the purpose of measuring progress over time. The choice of components is largely a matter of common sense and convenience. The exercise lacks a theoretical foundation and a rigorous methodology. There are some interesting (but not insurmountable) technical challenges that must be dealt with to ensure reliable continuity. For that reason, the author would be grateful for criticisms and suggestions.

Table 15 shows the construction of the living-standards index and figure 28 displays the trend.

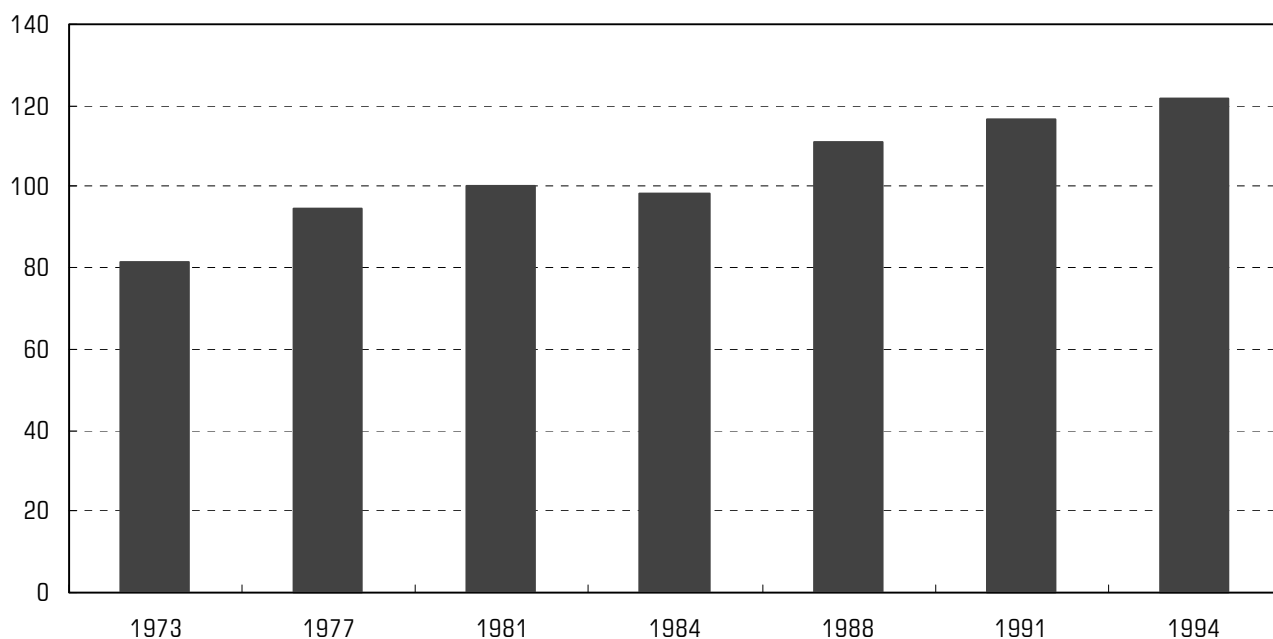
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If we employ this particular 8-component index to reflect Canadian living standards, it appears that the standard of living continues to rise into the 1990s. The net effect of the various influences is positive and indicates that average living standards in Canada are about 22 percent higher since 1981 and about 49 percent higher since 1973. The index showed a slight dip in 1984, clearly reflecting the severe economic downturn of the early 1980s. The continuing positive movement of the index is the result of the strong rise both in facilities ownership and in education levels as well as modest improvements in life expectancy, real consumption per capita, and wealth. These factors are sufficient to outweigh

the rise in unemployment, the virtual stagnation—especially since 1981—of real household income, and the lack of change in the percentage of the population that is not poor.

On balance, it would be difficult to argue that Canadian living standards are declining. The net effect of the relevant indicators suggest otherwise. Indeed, it would require *substantial* differential weighting of some of the negatively inclined components to obtain a different result. However, serious concerns remain. The high levels of unemployment and the apparent lack of growth in real incomes point to underlying problems in the economy and, especially, in the labour market.

Figure 28 Index of Canadian living standards (1973–1994)



Source: calculations by author.



Appendix: the data

Data table 1: Real GDP per capita (1986 prices), 1926–1995

Year	Real GDP per capita (1986\$)	Change in per-capita real GDP	Year	Real GDP per capita (1986\$)	Change in per-capita real GDP	Year	Real GDP per capita (1986\$)	Change in per-capita real GDP
1926	4,654	N.A.	1956	9,112	6.04	1986	19,297	2.28
1927	4,992	7.26	1957	9,041	-0.78	1987	19,839	2.81
1928	5,341	6.99	1958	8,984	-0.63	1988	20,560	3.63
1929	5,284	-1.07	1959	9,122	1.54	1989	20,691	0.64
1930	5,022	-4.96	1960	9,184	0.68	1990	20,336	-1.72
1931	4,387	-12.64	1961	9,281	1.06	1991	19,739	-2.94
1932	3,930	-10.42	1962	9,754	5.10	1992	19,596	-0.72
1933	3,605	-8.27	1963	10,072	3.26	1993	19,755	0.81
1934	3,940	9.29	1964	10,543	4.68	1994	20,341	2.97
1935	4,182	6.14	1965	11,037	4.69	1995	20,565	1.10
1936	4,332	3.59	1966	11,567	4.80	1996	21,000	2.12
1937	4,675	7.92	1967	11,694	1.10			
1938	4,695	0.43	1968	12,128	3.71			
1939	4,994	6.37	1969	12,595	3.85			
1940	5,599	12.11	1970	12,742	1.17			
1941	6,276	12.09	1971	13,030	2.26	Growth by decade		
1942	7,287	16.11	1972	13,617	4.50	1930 – 1939		-0.26
1943	7,475	2.58	1973	14,488	6.40	1940 – 1949		3.98
1944	7,650	2.34	1974	14,917	2.96	1950 – 1959		2.40
1945	7,387	-3.44	1975	15,085	1.13	1960 – 1969		3.29
1946	7,092	-3.99	1976	15,804	4.77	1970 – 1979		3.20
1947	7,303	2.98	1977	16,184	2.40	1980 – 1989		1.88
1948	7,257	-0.63	1978	16,756	3.53	1990 – 1996		0.23
1949	7,231	-0.36	1979	17,231	2.83			
1950	7,644	5.71	1980	17,263	0.19			
1951	7,816	2.25	1981	17,676	2.39	Growth by key period		
1952	8,204	4.96	1982	16,902	-4.38	1950 – 1974		2.97
1953	8,388	2.24	1983	17,263	2.14	1975 – 1996		1.59
1954	8,057	-3.95	1984	18,176	5.29			
1955	8,593	6.65	1985	18,867	3.80			

Source: Statistics Canada, CEO, Historical Statistical Supplement, Cat. No. 11–210–XPB, table 6.

Data table 2: Average incomes of Canadians: selected years, nominal (current) dollars and real (1994) dollars

Year	CPI (1986 = 100)	Families		Unattached individuals		All households		Families: income after tax	
		Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real
1951	21.1	3,546	21,965	1,369	8,480	3,113	19,283		
1954	21.5	4,144	25,191	1,650	10,030	3,639	22,122		
1957	22.6	4,654	26,914	1,803	10,427	4,075	23,566		
1959	23.4	4,966	27,737	1,955	10,920	4,354	24,319		
1961	23.9	5,317	29,076	2,123	11,610	4,665	25,511		
1965	25.7	6,536	33,239	2,873	14,611	5,779	29,390		
1967	27.6	7,602	35,999	3,257	15,424	6,519	30,871		
1969	30.0	8,927	38,892	3,980	17,340	7,686	33,485		
1971	31.9	10,368	42,479	4,346	17,806	8,845	36,240	8,783	35,986
1972	33.4	11,300	44,218	4,572	17,891	9,525	37,273	9,550	37,371
1973	36.0	12,716	46,166	5,149	18,694	10,694	38,825	10,771	39,104
1974	39.9	14,833	48,587	6,099	19,978	12,437	40,740	12,576	41,195
1975	44.2	16,613	49,124	6,595	19,502	13,805	40,822	14,135	41,797
1976	47.5	19,000	52,280	7,621	20,970	15,849	43,610	15,966	43,932
1977	51.3	20,101	51,212	8,254	21,029	16,764	42,711	17,159	43,717
1978	55.9	22,397	52,366	9,159	21,415	18,547	43,365	19,138	44,747
1979	61.0	24,245	51,947	10,492	22,480	20,164	43,204	20,554	44,039
1980	67.2	27,686	53,847	11,574	22,511	23,017	44,767	23,408	45,527
1981	75.5	30,664	53,083	13,714	23,741	25,741	44,561	25,924	44,878
1982	83.7	33,133	51,738	15,076	23,542	27,972	43,679	27,968	43,673
1983	88.5	34,672	51,204	15,226	22,486	28,921	42,712	29,127	43,016
1984	92.4	36,064	51,012	15,963	22,580	30,240	42,775	30,308	42,871
1985	96.0	38,471	52,376	17,013	23,162	32,099	43,701	32,140	43,757
1986	100.0	40,816	53,346	17,741	23,187	33,851	44,243	33,683	44,024
1987	104.4	43,114	53,975	18,854	23,604	35,542	44,496	35,100	43,942
1988	108.6	45,845	55,174	19,866	23,909	37,784	45,473	37,323	44,918
1989	114.0	49,557	56,816	21,516	24,668	40,876	46,864	39,994	45,853
1990	119.5	51,122	55,913	22,778	24,913	42,141	46,091	41,012	44,856
1991	126.2	52,711	54,590	22,828	23,642	43,030	44,564	42,257	43,764
1992	128.1	53,206	54,285	23,499	23,976	43,816	44,705	42,951	43,823
1993	130.4	53,065	53,187	23,503	23,557	43,509	43,609	42,861	42,960
1994	130.7	54,153	54,153	23,746	23,746	44,382	44,382	43,486	43,486
1995	133.5	55,247	54,088	24,166	23,659	45,329	44,378	44,286	43,357

Sources: pre-tax incomes: Statistics Canada, Cat. No. 13-207, various issues, and Poduluk 1968; after-tax incomes: Statistics Canada, Cat. No. 13-210, various issues.

Data table 3: Average household income per capita in constant (1995) dollars

Year	Income	Year	Income	Year	Income
1971	12,092	1980	17,359	1989	19,405
1972	12,719	1981	17,367	1990	19,265
1973	13,492	1982	17,072	1991	18,717
1974	14,555	1983	16,859	1992	18,852
1975	14,873	1984	17,045	1993	18,414
1976	15,912	1985	17,616	1994	18,757
1977	15,734	1986	17,963	1995	18,829
1978	16,352	1987	18,329		
1979	16,486	1988	18,853		

Source: Statistics Canada, Cat. No. 13-207XPB, 1995: 23.

Data table 4: Unemployment trends, 1946-1996

Year	Unemployment		Difference	% difference	Year	Unemployment		Difference	% difference
	Youth*	Total				Youth*	Total		
1946	4.9	3.4	1.50	44.12	1971	11.1	6.2	4.90	79.03
1947	3.4	2.2	1.20	54.55	1972	10.6	6.2	4.40	70.97
1948	3.8	2.3	1.50	65.22	1973	9.6	5.5	4.10	74.55
1949	4.5	2.8	1.70	60.71	1974	9.3	5.3	4.00	75.47
1950	5.6	3.6	2.00	55.56	1975	12.0	6.9	5.10	73.91
1951	4.0	2.4	1.60	66.67	1976	12.6	7.2	5.40	75.00
1952	4.6	2.9	1.70	58.62	1977	14.3	8.1	6.20	76.54
1953	4.6	3.0	1.60	53.33	1978	14.4	8.4	6.00	71.43
1954	6.9	4.6	2.30	50.00	1979	12.8	7.5	5.30	70.67
1955	6.7	4.4	2.30	52.27	1980	13.1	7.5	5.60	74.67
1956	5.2	3.4	1.80	52.94	1981	13.1	7.6	5.50	72.37
1957	7.3	4.6	2.70	58.70	1982	18.6	11.0	7.60	69.09
1958	11.1	7.0	4.10	58.57	1983	19.7	11.9	7.80	65.55
1959	9.4	6.0	3.40	56.67	1984	17.7	11.3	6.40	56.64
1960	11.0	7.0	4.00	57.14	1985	16.3	10.5	5.80	55.24
1961	10.9	7.1	3.80	53.52	1986	15.0	9.6	5.40	56.25
1962	9.4	5.9	3.50	59.32	1987	13.5	8.9	4.60	51.69
1963	9.3	5.5	3.80	69.09	1988	11.9	7.8	4.10	52.56
1964	8.0	4.7	3.30	70.21	1989	11.2	7.5	3.70	49.33
1965	6.5	3.9	2.60	66.67	1990	12.7	8.1	4.60	56.79
1966	5.6	3.4	2.20	64.71	1991	16.2	10.4	5.80	55.77
1967	6.5	3.8	2.70	71.05	1992	17.8	11.3	6.50	57.52
1968	7.7	4.5	3.20	71.11	1993	17.7	11.2	6.50	58.04
1969	7.5	4.4	3.10	70.45	1994	16.5	10.4	6.10	58.65
1970	10.0	5.7	4.30	75.44	1995	15.6	9.5	6.10	64.21

Sources: Statistics Canada: Cat. No. 11-210, 1995/96, Canadian Economic Observer, various issues and Statistics Canada, Historical Statistics of Canada, 2nd ed., Cat. No. 11-516E, 1983.

* Prior to 1966, "youth" referred to those between 14 and 24 years of age; after 1965, "youth" refers to those between 15 and 24.

**Data table 5: Age-earnings and age-income profiles (ages 21 to 44) for families
in current dollars**

Age	1973		1984		1994	
	Average Earnings	Average Income	Average Earnings	Average income	Average earnings	Average income
21	8,039	8,573	14,968	18,497	18,246	23,723
22	8,921	9,465	17,006	20,821	23,067	29,133
23	8,680	9,259	21,629	25,102	22,715	29,006
24	10,257	10,865	23,782	27,192	28,919	35,306
25	10,317	10,955	28,189	31,588	34,468	39,801
26	10,596	11,211	26,957	30,550	39,086	44,235
27	10,999	11,726	29,041	33,029	39,164	44,757
28	11,209	11,866	26,940	30,757	41,670	47,140
29	11,608	12,243	29,180	32,663	44,986	51,173
30	12,301	12,963	30,801	34,486	38,897	45,301
31	11,985	12,791	30,592	34,290	44,187	50,871
32	11,536	12,309	29,798	33,567	47,810	53,922
33	12,596	13,337	32,525	36,765	45,986	51,950
34	12,769	13,574	33,314	37,051	46,725	53,419
35	12,414	13,364	33,077	37,241	48,342	54,719
36	12,126	12,989	36,622	40,214	48,230	54,116
37	12,290	13,263	34,054	38,772	49,730	55,776
38	12,288	13,279	33,982	38,408	48,878	55,325
39	12,555	13,541	34,417	38,790	50,660	57,354
40	12,299	13,330	36,408	41,617	54,003	59,914
41	12,918	14,016	36,999	41,594	52,964	59,183
42	13,494	14,644	37,545	42,670	51,877	57,563
43	13,282	14,483	38,436	42,853	56,601	63,036
44	13,727	14,915	38,716	43,933	61,689	67,565

Source: Statistics Canada, Microdata File of Economic Families, various years.

**Data table 6: Age-earnings and age-income profiles (ages 21 to 44) for families
in constant (1994) dollars**

Age	1973		1984		1994	
	Average Earnings	Average income	Average earnings	Average income	Average earnings	Average income
21	29,186	31,125	21,172	26,164	18,246	23,723
22	32,388	34,363	24,055	29,451	23,067	29,133
23	31,513	33,615	30,594	35,507	22,715	29,006
24	37,239	39,446	33,640	38,463	28,919	35,306
25	37,456	39,773	39,873	44,681	34,468	39,801
26	38,469	40,702	38,131	43,213	39,086	44,235
27	39,932	42,572	41,078	46,720	39,164	44,757
28	40,695	43,080	38,107	43,506	41,670	47,140
29	42,143	44,449	41,275	46,202	44,986	51,173
30	44,659	47,063	43,568	48,780	38,897	45,301
31	43,512	46,438	43,272	48,503	44,187	50,871
32	41,882	44,689	42,149	47,481	47,810	53,922
33	45,730	48,421	46,007	52,004	45,986	51,950
34	46,359	49,281	47,123	52,409	46,725	53,419
35	45,070	48,519	46,787	52,677	48,342	54,719
36	44,024	47,157	51,802	56,883	48,230	54,116
37	44,620	48,152	48,169	54,843	49,730	55,776
38	44,612	48,210	48,068	54,328	48,878	55,325
39	45,582	49,161	48,683	54,868	50,660	57,354
40	44,652	48,395	51,499	58,867	54,003	59,914
41	46,900	50,886	52,335	58,835	52,964	59,183
42	48,991	53,166	53,107	60,357	51,877	57,563
43	48,221	52,581	54,368	60,616	56,601	63,036
44	49,837	54,150	54,764	62,143	61,689	67,565

Source: Statistics Canada, Microdata File of Economic Families, various years.

**Data table 7: Age-earnings and age-income profiles (ages 45 to 68) for families
in current dollars**

Age	1973		1984		1994	
	Average earnings	Average income	Average earnings	Average income	Average earnings	Average income
45	14,054	15,303	39,011	44,388	56,345	62,383
46	14,039	15,124	41,890	47,231	57,162	64,462
47	13,631	15,037	41,467	46,105	60,780	67,540
48	13,222	14,674	36,585	41,539	58,839	67,113
49	12,818	14,309	37,947	42,766	61,056	69,086
50	13,785	14,907	40,338	46,301	60,036	65,787
51	12,837	14,216	34,023	40,346	61,936	69,566
52	13,518	14,848	36,307	41,371	60,584	68,350
53	13,170	14,822	36,576	44,661	57,577	67,267
54	13,591	15,341	37,543	44,185	59,337	68,297
55	13,320	14,985	35,345	41,977	52,760	62,057
56	12,114	13,778	34,523	42,018	56,039	66,830
57	13,208	14,684	34,392	41,944	45,161	59,441
58	11,469	13,248	33,801	41,160	50,543	64,458
59	10,544	12,193	28,755	36,907	43,048	57,430
60	11,324	13,499	25,892	34,886	38,859	54,717
61	10,838	13,107	26,267	34,974	34,412	53,314
62	9,283	11,878	24,099	35,553	30,164	48,499
63	8,411	10,763	20,204	32,024	26,996	47,360
64	7,999	10,525	18,919	32,150	18,786	37,875
65	6,622	9,904	13,294	29,152	16,696	42,552
66	4,097	8,551	9,468	28,667	15,872	45,955
67	4,162	8,953	8,381	26,940	12,135	42,122
68	3,240	8,574	19,792	45,749	8,529	40,116

Source: Statistics Canada, Microdata File of Economic Families, various years.

**Data table 8: Age-earnings and age-income profiles (ages 45 to 68) for families
in constant (1994) dollars**

Age	1973		1984		1994	
	Average earnings	Average income	Average earnings	Average income	Average earnings	Average income
45	51,024	55,558	55,181	62,787	56,345	62,383
46	50,969	54,909	59,253	66,808	57,162	64,462
47	49,488	54,593	58,655	65,216	60,780	67,540
48	48,003	53,275	51,749	58,757	58,839	67,113
49	46,536	51,950	53,676	60,493	61,056	69,086
50	50,047	54,121	57,058	65,493	60,036	65,787
51	46,605	51,612	48,126	57,069	61,936	69,566
52	49,078	53,906	51,356	58,519	60,584	68,350
53	47,814	53,812	51,737	63,173	57,577	67,267
54	49,343	55,696	53,105	62,500	59,337	68,297
55	48,359	54,404	49,996	59,376	52,760	62,057
56	43,981	50,022	48,833	59,434	56,039	66,830
57	47,952	53,311	48,647	59,330	45,161	59,441
58	41,639	48,098	47,812	58,221	50,543	64,458
59	38,281	44,267	40,674	52,205	43,048	57,430
60	41,112	49,009	36,624	49,346	38,859	54,717
61	39,348	47,586	37,155	49,471	34,412	53,314
62	33,702	43,124	34,088	50,290	30,164	48,499
63	30,537	39,076	28,579	45,298	26,996	47,360
64	29,041	38,212	26,761	45,476	18,786	37,875
65	24,042	35,957	18,804	41,236	16,696	42,552
66	14,874	31,045	13,392	40,549	15,872	45,955
67	15,110	32,504	11,855	38,107	12,135	42,122
68	11,763	31,128	27,996	64,712	8,529	40,116

Source: Statistics Canada, Microdata File of Economic Families, various years.

Data table 10: Average income by age for seniors in current dollars

Age of head	1973		1984		1994	
	Individual	Family	Individual	Family	Individual	Family
65	4,241	9,904	15,278	29,152	22,285	42,552
66	3,608	8,551	12,501	28,667	19,201	45,955
67	3,615	8,953	13,413	26,940	20,842	42,122
68	4,467	8,574	13,387	45,749	20,477	40,116
69	3,552	9,081	12,483	25,755	19,264	40,934
70	3,370	7,783	11,671	27,766	17,106	38,388
71	3,150	7,782	12,056	24,315	26,642	41,426
72	3,382	8,933	10,480	25,932	16,345	40,355
73	3,568	6,763	14,620	26,979	18,682	38,838
74	2,806	7,050	11,592	24,201	20,247	43,116
75	2,905	7,690	10,251	24,678	18,130	44,871
76+	3,018	7,279	10,846	22,168	17,332	36,209

Source: Statistics Canada, Cat. No. 11-210, 1995/96.

Data table 11: Average income in constant (1994) dollars and percentage changes in real income by age of senior, 1973-1994

Age of head	1973		1984		1994		Change 1973-1994		Change 1984-1994	
	Individual	Family	Individual	Family	Individual	Family	Individual	Family	Individual	Family
65	15,397	35,957	21,611	41,236	22,285	42,552	44.73	18.34	3.12	3.19
66	13,099	31,045	17,683	40,549	19,201	45,955	46.58	48.03	8.59	13.33
67	13,124	32,504	18,973	38,107	20,842	42,122	58.80	29.59	9.85	10.54
68	16,218	31,128	18,936	64,712	20,477	40,116	26.26	28.87	8.14	-38.01
69	12,896	32,969	17,657	36,430	19,264	40,934	49.38	24.16	9.10	12.36
70	12,235	28,257	16,509	39,275	17,106	38,388	39.81	35.85	3.62	-2.26
71	11,436	28,253	17,053	34,394	26,642	41,426	132.96	46.63	56.23	20.45
72	12,279	32,432	14,824	36,681	16,345	40,355	33.12	24.43	10.26	10.02
73	12,954	24,553	20,680	38,162	18,682	38,838	44.22	58.18	-9.66	1.77
74	10,187	25,595	16,397	34,232	20,247	43,116	98.75	68.45	23.48	25.95
75	10,547	27,919	14,500	34,907	18,130	44,871	71.90	60.72	25.03	28.54
76+	10,957	26,427	15,342	31,357	17,332	36,209	58.18	37.02	12.97	15.47
Average	12,611	29,753	17,514	39,170	19,713	41,240	58.73	40.02	13.39	8.45

Source: Statistics Canada, Microdata File of Economic Families, various years.

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Data table 12: Wealth in Canada: national accounts data

Year	National Balance Sheet Net Worth	Persons and Unincorporated Businesses	Population	Wealth per capita (National)	Wealth per capita (Persons)	CPI 1986 = 100	Real Wealth per capita (National)	Real Wealth per capita (Persons)
1970	285,157	226,598	21,324	13.37	10.63	31.00	56.38	44.80
1971	317,444	248,140	22,026	14.41	11.27	31.90	59.05	46.16
1972	380,039	276,811	22,285	17.05	12.42	33.40	66.73	48.61
1973	431,437	328,804	22,559	19.12	14.58	36.00	69.43	52.92
1974	536,316	391,211	22,875	23.45	17.10	39.90	76.80	56.02
1975	614,327	438,188	23,209	26.47	18.88	44.20	78.27	55.83
1976	680,012	492,473	23,517	28.92	20.94	47.50	79.56	57.62
1977	756,888	555,851	23,796	31.81	23.36	51.30	81.04	59.51
1978	839,344	636,194	24,036	34.92	26.47	55.90	81.65	61.89
1979	960,041	783,538	24,277	39.55	32.27	61.00	84.73	69.15
1980	1,105,580	855,023	24,593	44.96	34.77	67.20	87.43	67.62
1981	1,233,643	951,702	24,900	49.54	38.22	75.50	85.77	66.17
1982	1,323,613	1,024,024	25,202	52.52	40.63	83.70	82.01	63.45
1983	1,374,168	1,099,081	24,456	56.19	44.94	88.50	82.98	66.37
1984	1,447,137	1,186,497	25,702	56.30	46.16	92.40	79.64	65.30
1985	1,501,125	1,264,215	25,942	57.86	48.73	96.00	78.78	66.35
1986	1,605,229	1,391,999	26,204	61.26	53.12	100.00	80.07	69.43
1987	1,739,483	1,518,079	26,550	65.52	57.18	104.40	82.02	71.58
1988	1,907,319	1,654,994	26,895	70.92	61.54	108.60	85.35	74.06
1989	2,073,437	1,813,984	27,379	75.73	66.25	114.00	86.82	75.96
1990	2,183,948	1,882,762	27,791	78.58	67.75	119.50	85.95	74.10
1991	2,192,308	2,002,331	28,120	77.96	71.21	126.20	80.74	73.75
1992	2,233,727	2,115,042	28,542	78.26	74.10	128.10	79.85	75.61
1993	2,291,374	2,224,994	28,947	79.16	76.86	130.40	79.34	77.04
1994	2,380,558	2,331,370	29,251	81.38	79.70	130.70	81.38	79.70
1995	2,470,724	2,425,991	29,606	83.45	81.94	133.50	81.70	80.22
1996	2,585,742	2,541,285	30,225	85.55	84.08	135.60	82.46	81.04

Source: Statistics Canada, National Balance Sheet Accounts, Cat. No. 13-214 and 11-210, various.



Notes

- 1 Calculation by author using 1951 census, Volumes 5 and 10 and the 1994 Microdata File of Economic Families.
- 2 See in particular the series of articles written by David Suzuki and appearing in the Toronto Star during 1993 and 1994.
- 3 This quotation comes from a novel by Oscar Wilde and was, in fact, not directed at economists at all. In *Lady Windermere's Fan*, Wilde's character, Cecil Graham, asks "What is a cynic?" to which Lord Darlington answers "A man who knows the price of everything and the value of nothing."
- 4 Household expenditure, which includes income taxes, spending on security and charitable contributions in addition to consumption of goods and services is a broader conception of households' living standard than consumption expenditure. It is possible to think of taxes as a payment (involuntary though it may be) for a range of services (health care, public pensions, unemployment insurance, a police and justice system and support for education) provided by the state and to the benefit of most Canadians. It is possible to take this view even if one believes that there are better ways to provide some or all of those services. Spending on security and charitable giving likewise should be included because such spending provides psychic value to the household that is at least as much as the dollar expenditure. This conception of the standard of living is preferable in some circumstances to the narrower "consumption."
- 5 The microdata file of economic families cannot adequately examine all earnings by men and women as precise categories as it is a database of household rather than individual incomes.
- 6 This conclusion ignores the benefits of higher education to personal development.
- 7 The list of necessities is fixed but the standard of quality of the items is that considered minimally acceptable in the society in which one lives. Hence, there is a relative aspect to this absolute standard, without which it would not be relevant or useful.
- 8 It has been suggested to me, by way of explanation, that, before the 1980s, immigrants to Canada were predominately in the "economic" class; that is, they were selected on the basis of their likely economic success. More recently, many have been entering Canada as refugees or as immigrants who are sponsored and are coming to join their families.
- 9 This index of living standards is broadly similar, in its methodology, to the United Nation's Human Development Index, which also combines a small number of factors to capture changes in "human development," as it has been defined.

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