

April 2008

A QUARTER CENTURY OF ECONOMIC INEQUALITY IN CANADA: 1981–2006

By Lars Osberg

Growing Gap  **.ca**

CANADIAN CENTRE FOR POLICY ALTERNATIVES

ISBN 978-0-88627-589-1

Canadian Centre for Policy Alternatives

2 Carlton Street, Suite 1001

Toronto, Ontario

(416) 263-9896

www.GrowingGap.ca

ACKNOWLEDGEMENTS

Special thanks to John Myles, for a very productive email discussion, and to David Green, Mathieu Dufour, Andrew Jackson, Hugh MacKenzie and Kuan Xu for their very helpful comments on earlier drafts. Since I have not always taken their advice, they are not to be blamed for any remaining errors.

What has been happening to economic inequality in Canada in recent years?

A LITTLE OVER twenty five years ago, I wrote a book¹ which summarized the literature and data on Canadian economic inequality that was then available and concluded that: “economic inequality has remained roughly constant since the Second World War” (Osberg, 1981:205). Back in those days, an oft-repeated gibe in academia was that the study of economic inequality was boring — a bit like “watching grass grow” — since changes in income inequality had been so small. The response of people like me was to say that the *lack of change in economic inequality in Canada was itself interesting*, because over the 35 years from 1946 to 1981, the depth of structural changes in Canada had been profound.

Between 1941 and 1971, Canada urbanized and industrialized — the farm population declined by 1.7 million, falling from 27.1% to 6.6 % of Canadians. The Baby Boom and high immigration doubled Canada’s population from 12.3 million in 1946 to 24.8 million in 1981, but because GDP in 1981 was 4.5 times larger, per capita output was 227% of its 1946 level.² Throughout the period, technological and social change was dramatic — in 1946, horse-drawn wagons still delivered the milk in Canadian cities but by 1981 the telecommunications-computerization revolution was well established. Hence, the fact that aggregate income shares had *not* changed much during this period was quite remarkable — an important fact, which needed explanation.

If major changes in the economy were happening, but the income distribution did not change, was this a pointer to something more fundamental in Canadian society? Could it be, for example, that the basic technological parameters of a market economy's production function generated constant income shares along a balanced growth path? Or did Keynesian full employment macro-economics and welfare state social policy represent a historic bargain of political economy — an implicit social contract in which capitalists got increasing dividends and workers got rising wages and a taste of economic security?³ What are the really essential determinants of economic inequality in modern capitalist societies?

However, well before these debates could be decided, both the trend and the context of economic inequality changed. In the U.K. and the U.S.A., in particular, the 1980s saw significant and rapid increases in inequality, as the Thatcher and Reagan regimes explicitly repudiated Keynesian macro-economics, accommodation with unionized labour and welfare state social policy. In the early 1980s and 1990s, Canada experienced its two most severe recessions since the Great Depression of the 1930s, and concern about the implications of globalization and structural change soared — but references to 'full employment' as a policy goal disappeared from economic discourse, and Canadian social policy saw a long series of cutbacks. (Most prominently, Unemployment Insurance morphed into Employment Insurance in the mid-1990s at about the same time that many provinces cut Social Assistance.)

Although the commentators of 1981 to 2006 were just as convinced as their counterparts from 1946 to 1980 that structural change had never been more rapid than it was *right then*, the changes of each period were qualitatively as well as quantitatively different, so it is hard to know which period really had 'more' — adjustment to profound structural change, and its implications for inequality, has always been a theme of the inequality debate in Canada. However, a new element in recent discussions has been the historically slow growth in wages and real median household income in Canada between 1981 and 2006. The stagnation of average real hourly labour compensation has gone on long enough that it has become the 'new normal' — which poses distinct problems for a rationalization of inequality as the price society pays for vigorous increases in average absolute living standards. Total output has continued to grow, but the economic benefits of growth have mostly gone to the very top end of the income hierarchy — so there is a new twist to the question: "What has been happening to income *shares* in Canada?"

The objective of this paper is to step back a bit from the ongoing debates on specific aspects of economic inequality and social policy in order to consider broad trends in how economic inequality has changed in Canada, and what can be learned from that. Section 1 therefore starts with a brief overview of key trends in rising economic inequality in Canada between 1981 and 2006.⁴ Section 2 focuses attention on four somewhat neglected issues: the rise in capital's real rate of return, the increasing inequality in wealth ownership, the rising income share of the very affluent and the

declining transfer incomes of Canada's most deprived citizens. Section 3 suggests that these issues deserve more attention, speculates briefly on the evolution of the analysis of inequality and considers likely future trends.

Recent Trends in Income Distribution in Canada

THE MOST EASILY available, and longest running, data on income distribution in Canada is the percentage shares of money income (before tax) received by each fifth of Canadian family units, from richest to poorest. Table 1 presents summary data from 1951 to 2005. The share of the top 20% fluctuated between 41.1% and 43.3% between 1951 and 1981, and has been on an upward trend since 1981. Although remaining within its historical range during the 1980s, the top quintile's share increased during the 1990s, and has fluctuated around 47% since 2000. Comparing 1981 and 2005, the middle 60% of the income distribution have lost 4.7 percentage points, going from 53.8% to 49.1% of household money income — which is about the same

TABLE 1 Share of Aggregate Incomes Received by Each Quintile of Families and Unattached Individuals (%)

	1951	1961	1971	1981	1991	1996	2001	2005
Bottom 20% (poorest)	4.4	4.2	3.6	4.6	4.5	4.2	4.1	4.1
Second 20%	11.2	11.9	10.6	11	10	9.6	9.7	9.6
Middle 20%	18.3	18.3	17.6	17.7	16.4	16	15.6	15.6
Fourth 20%	23.3	24.5	24.9	25.1	24.7	24.6	23.7	23.9
Top 20% (richest)	42.8	41.1	43.3	41.6	44.4	45.6	46.9	46.9

SOURCES Statistics Canada (1998) *Income Distribution by Size in Canada* Catalogue No. 13-207, CANSIM Table 202-0701, V1546461 to V1546465, J.R. Podoluk (1968) *Incomes of Canadians*, Dominion Bureau of Statistics.

proportionate loss as the bottom 20%, for whom a decline of 0.5 percentage points is about a ninth, because they started with so much less (4.6%).

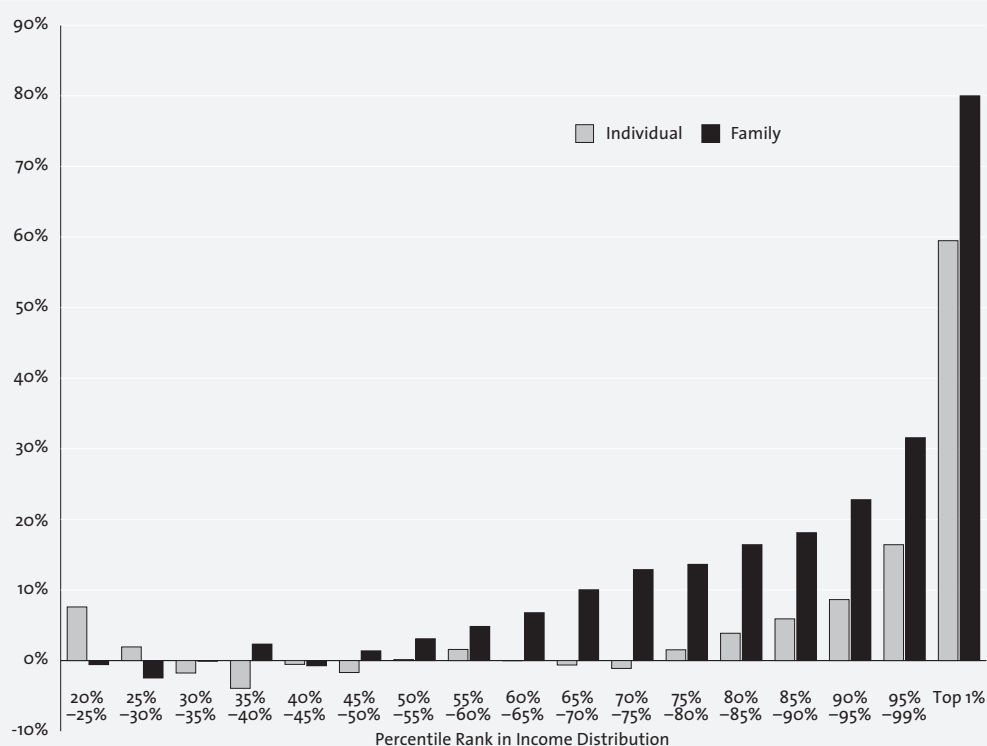
These income share figures have the major advantage of comparability over time — but even in 1981 it was well appreciated that such data provide only a crude indicator of economic inequality. The core problem is that we are trying to summarize the extent of differences between millions of Canadians — each of whom has a changing degree of command over a wide array of economic resources. If we think only of two ‘types’ — ‘the rich’ and ‘the poor’, the world will look very simple, but as soon as we introduce a middle class, the concept of ‘inequality’ can become ambiguous, because differences between the middle and the poor and between the middle and the rich do not necessarily move in the same direction, or to the same degree. As well, differences in the concept of economic resources (income, wealth or well-being), change in survey instruments, and trends in the size and distribution of family types or in the correlation of individuals’ incomes (over time and within families) can all make a substantial practical difference to measurements of economic inequality.⁵

As a result, these data on quintile shares need to be supplemented by other research if we are to be sure there is a long term trend in inequality — and a wide array of research has confirmed the basic qualitative picture of Table 1. Yalnizyan (2007), for example, also examined the shift in income shares over the period between 1976–79 and 2001–04, using the same data sources but focusing on families with children. Rather than divide the population into fifths, she divided Canadians into tenths (deciles) — and found that most of the gains of the top 20% actually went to the top 10%.

More recently, Frenette, Green and Milligan (2007) have noted that measured trends in decile or quintile shares understate the increase in Canada’s inequality, partly because of non-response among the poorest and the richest Canadians to Statistics Canada’s surveys. Frenette et al argue that Census of Canada offers a more complete picture — but Canada’s most deprived citizens are often not counted there (e.g. the homeless, who do not have a residence at which they could be interviewed). So when Frenette et al. adjust for income taxes paid, transfer payments received and the impact of inflation and compare the incomes of Canadians at the bottom 5% point of the income distribution (which actually fell slightly between 1980 and 2000) and at the top 5% point (where real incomes increased by approximately an eighth) they recognize that they are still understating the true degree of disparity in incomes because the homeless have never been part of our statistical consciousness, and income tax data show that gains among the top 1% have been far greater than gains at the 95th percentile.

Murphy, Roberts and Wolfson (2007) have recently used income tax data to make the same point — incomes at the very top of the Canadian income distribution have risen dramatically. Because most families have experienced stagnating incomes, this implies that the income share of the very affluent has increased substantially. Figure

FIGURE 1 Percent Change in Real Taxable Income 1982–2004



SOURCE Calculated from Murphy, Roberts and Wolfson (2007: Tables 4 and 5)

1 uses their data (reproduced here as Tables 2 and 3) to plot the total percentage increase in real income, by each 5% of the population, for the period 1982 to 2004.⁶

As Table 2 indicates, there was no significant increase in the real average taxable income of most of the income distribution of Canadian families between 1982 and 2004.⁷ The surprise in Table 2 may be how far up the income distribution one has to go before there was much of an increase in real taxable income over this 22 year period — only the top fifth of families got much of an increase at all — and one must also remember that an increase of 20% spread over 22 years amounts to an annual rate of change of less than 1%. However, the farther up the income distribution one goes, the bigger the increase was.

During the twenty-two year period pictured in Figure 1, the female labour force participation rate in Canada increased by about a fifth — from 52% to 62%. Increased labour supply by families enabled some increase in family money incomes, but for the vast majority it was much less than a fifth (spread over 22 years). In terms of individual taxable income, the bottom nine-tenths of individuals had little, if any, increase.

Both 1982 and 1992 were recession years in Canada, while 2004 was a good year for growth, which followed several years of expansion. Since capital's share in national income is quite cyclically sensitive, some part of the rise in top end incomes from 1992 to 2004 may be due to a business cycle effect, as Canada recovered from

TABLE 2 Average Real Taxable Income 2004\$, thousands

	Individuals			Families		
	1982	1992	2004	1982	1992	2004
Bottom 5%	-90	0	0	-12	2	2
Bottom 10%	-5	2	2	-1	6	6
Bottom 20%	2	5	5	6	10	10
20% to 40%	14	14	14	25	23	25
40% to 60%	25	23	25	42	40	43
60% to 80%	40	37	40	63	62	70
Top 20%	79	77	93	120	124	158
Top 10%	102	100	128	153	160	215
Top 5%	133	130	178	197	206	296
Top 1%	269	268	429	380	404	684
Top 0.1%	852	822	1,641	1,143	1,196	2,493
Top 0.01%	2,903	2,547	5,920	3,658	3,490	8,443

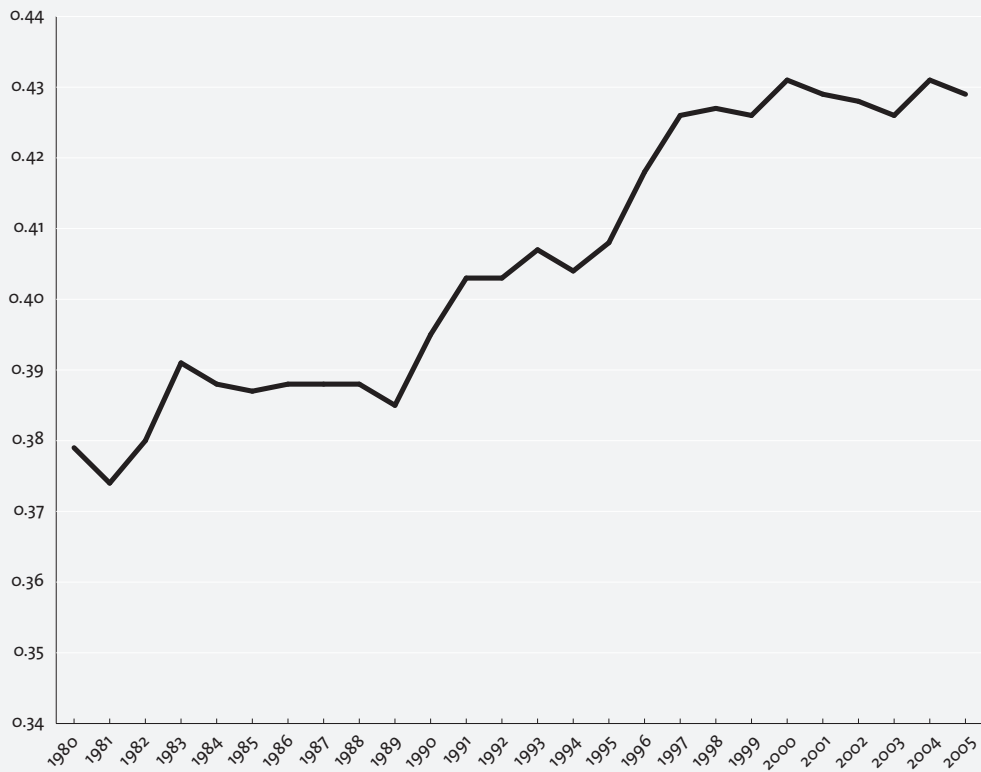
SOURCE Murphy, Roberts and Wolfson (2007: Table 4, page 7)

TABLE 3 Shares of Taxable Income (%)

	Individuals			Families		
	1982	1992	2004	1982	1992	2004
Bottom 5%	-1.0	-0.1	0.0	-0.8	0.2	0.2
5% to 10%	0.1	0.6	0.4	0.6	0.9	0.7
10% to 15%	0.6	1.0	0.9	1.1	1.2	1.1
15% to 20%	1.1	1.4	1.2	1.5	1.5	1.3
20% to 25%	1.5	1.7	1.5	1.9	1.7	1.6
25% to 30%	1.9	2.0	1.8	2.3	2.1	1.9
30% to 35%	2.3	2.3	2.1	2.6	2.4	2.2
35% to 40%	2.8	2.7	2.5	3.0	2.8	2.6
40% to 45%	3.2	3.0	2.8	3.5	3.2	2.9
45% to 50%	3.7	3.5	3.2	3.9	3.6	3.3
50% to 55%	4.2	3.9	3.7	4.3	4.0	3.7
55% to 60%	4.7	4.5	4.2	4.8	4.5	4.2
60% to 65%	5.2	5.0	4.7	5.3	5.0	4.7
65% to 70%	5.9	5.6	5.3	5.8	5.6	5.3
70% to 75%	6.6	6.3	5.9	6.4	6.3	6.0
75% to 80%	7.3	7.1	6.7	7.1	7.0	6.7
80% to 85%	8.2	8.0	7.7	7.9	7.9	7.7
85% to 90%	9.4	9.3	9.0	9.0	9.1	8.9
90% to 95%	11.2	11.2	11.0	10.7	10.9	11.0
Top 5%	21.0	20.9	25.3	19.3	19.9	24.1
Top 1%	8.5	8.6	12.2	7.4	7.8	11.2
Top 0.1%	2.7	2.6	4.7	2.2	2.3	4.1
Top 0.01%	0.9	0.8	1.7	0.7	0.7	1.4

NOTE Total income includes capital gains and RRSP withdrawals. SOURCE Murphy, Roberts and Wolfson (2007: Table 5, page 8)

**FIGURE 2 Gini Index of Inequality in Total Income,
All Canadian Family Units 1980–2005**



SOURCE CANSIM v21151621

the early-1990s' recession, rather than a long run secular trend. However, consideration of possible business cycle effects just makes the constancy of real incomes among the vast majority of individuals all the more remarkable.

In the 1990s, incomes at the top of the distribution began to increase dramatically (e.g. the average incomes of the top 0.01% increased by 142% from 1992 to 2004). Using the data in Table 2 one can calculate that between 1992 and 2004, the average income of the top 10% of families increased by about 34% (in 2004 dollars, an average increase of \$55,000). However, when the top 5% of families have incomes that are going up even faster (their incomes increased by 43.6%), this implies that the lower half of the top decile were pulling down the group average (i.e. the income gain for those between the 90th and 95th percentile was 22.8%). Hence, the increasing size of changes at the very top end is somewhat masked when the average incomes, or the income share, of the top 20% are calculated (as in Table 1 or 2), because the very large changes in the incomes of the top 1% are included in the incomes of the top 5%, and those of the top 5% are included in the top 20%.

As Murphy et al note, trends in both absolute and relative income matter for economic inequality. Table 3 looks at *shares* of income — when incomes at the very top rise, but incomes elsewhere change very little, it is clear that the *share* of top

income classes will rise and the share of lower- and middle-income groups has to fall, so inequality rises.⁸

Because the Gini index is the most commonly used single summary measure of inequality, and the after tax total money income of family units is the most common measure of resources, Figure 2 presents trends in the Canadian Gini index between 1980 and 2005. Although the 1980s saw little change among families under 65 in age, the 1990s — and in particular the late-1990s — showed a strong upward trend in inequality. But although the Gini index in principle varies between zero (perfect equality) and one (perfect inequality), in practice it tends to be most affected by shifts in the middle part of the distribution.⁹ When there are significant changes in the incomes of those at the extremes of the Canadian distribution, such changes are only weakly reflected in shares of income quintiles, or in the Gini index of inequality. Hence, when rising inequality is particularly pronounced at the extremes of the distribution, both Table 1 and Figure 2 share a tendency to understate the severity of trends.

Tony Atkinson is probably the world's pre-eminent scholar of economic inequality — his summary (2003:488) of the 1965 to 1999 period concludes that the Canadian data tell a “story of rising market income inequality...since 1981 the Gini has risen by more than 5 percentage points. But the inequality of disposable income remained unchanged up to 1996. Until that point, the tax and transfer system appears to have been successful in offsetting any exogenous forces making for greater inequality.”

1.2 THE CONTEXT OF GREATER INEQUALITY IN CANADIAN INCOME SHARES

Thirty years ago, the context of unequal shares was very different. Canadians at all income levels had good reason to expect continued strong growth in household incomes — measured in 2007 dollars, median family income in Canada grew from \$38,800 in 1965 to \$61,800 in 1979 (an increase of 59.5% in real terms, for a compound annual real growth rate of 3.1%).¹⁰ As well, a burst of social activism in the late-1960s and early-1970s in Canada had brought in Medicare, the Canada Pension Plan/Quebec Pension Plan, Canada Assistance Plan and revisions to Unemployment Insurance. Poverty reduction was then a clearly stated priority of public policy. Lyndon Johnson, as U.S. President, had declared a “War on Poverty” in 1964, the U.K. had set up a Royal Commission on the Distribution of Income and Wealth, and the Senate of Canada had issued an influential report on poverty in 1971.¹¹ In the 1970s, it could therefore be argued that current income inequality was not all that important as a long term problem because:

1. ‘A rising tide raises all boats’ — strong growth for all income classes meant that relative deprivation for most people was fairly temporary, something which

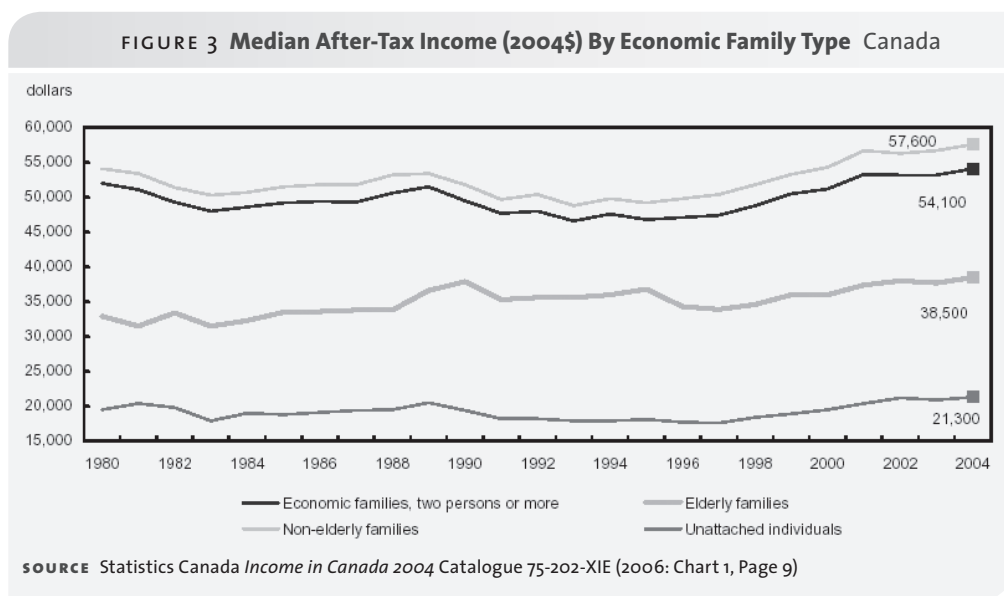
would be quickly dominated by increases in the absolute living standard of everyone; and

2. Canada had both the will, and the means, to do something about any remaining poverty.

The context of greater inequality in Canada since 1996 is profoundly different. For most types of Canadian families, increases in median real income ended some time around 1979. Figure 3 is taken directly from Statistics Canada (2006:9), which expressed income in 2004 dollars.¹² When income gains are concentrated in the top half of the income distribution, *average* incomes can rise even when the majority of people are no better off — as happened in Canada between 1980 and 2004, when the median income of economic families stagnated while growth at the top end pulled up the average by 11%.¹³ Simultaneously, the social policy debate became dominated by the rhetoric of retrenchment, as both provincial and federal governments cut social expenditures drastically in the mid-1990s. The current context of inequality debates in Canada is thus profoundly different than 25 or 30 years ago, since the long stagnation of median money incomes has been accompanied by a reduction in the ‘social wage’ of public services.

Between 2000 and 2004 there was a slight (3.1%) resurgence of growth in median incomes — but this rebound was at *one quarter* the average annual growth rate of the 1965–1980 period.

Figure 3 presents trends for different family *types*, but this is a very crude adjustment for household needs, and a large family clearly needs more money to be as well off as a single person with the same income. In recent years, “equivalence scales” have become a commonly used way to calculate the ‘effective consumption’ of people living in families of differing size, given the household’s income and the economies

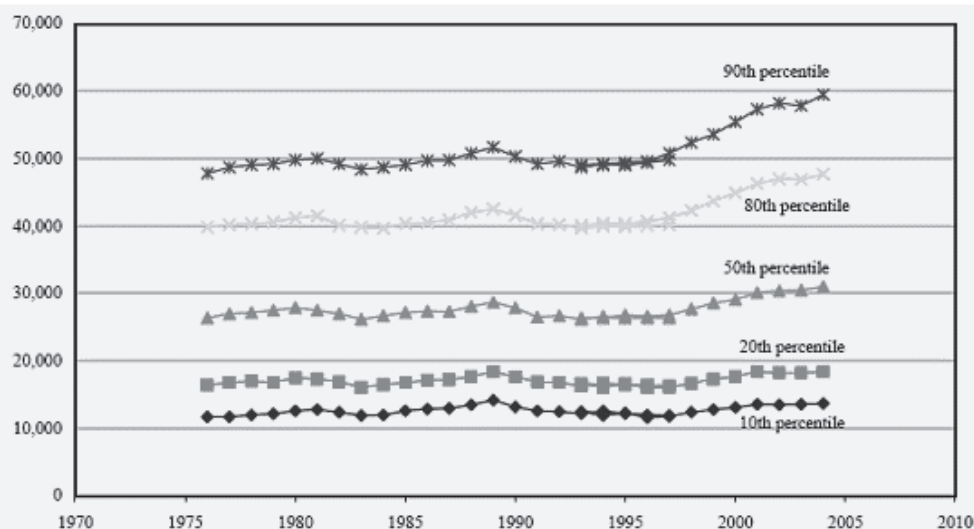


of scale in household consumption.¹⁴ Heisz (2007:34) has used this technique to calculate the long term trend in equivalent income, at differing points in the income distribution. Figure 4 is taken from his work, and tells a now-familiar story — not much change for most people, but increasing incomes at the top end.

Figures 3 and 4 are based on data, drawn from different Statistics Canada surveys, which cannot measure income changes at the top end as accurately as the income tax data used in Figure 1 — but all three figures paint an entirely consistent picture. However, they also combine together families of different ages, and the incomes of individual families will rise over time if earnings increase with greater work experience, as individuals ride the escalator of age up the hierarchy of earnings. In the 1970s, the incomes of individual families rose both because of this age effect for individuals and because the wage distribution as a whole shifted up. However, after 1980 the median income of all families remained constant — like an escalator that starts to sink slowly into the sand, the age effect was offset by a shift down in the earnings profile of entering cohorts of young workers. As Beaudry and Green (2000) showed, starting in the 1980s, each cohort of younger male workers entering the labour market has had, controlling for education, lower real wages at any given age than their parents' generation received — and Osberg (1997, 2003) showed the same trend is true for equivalent family income.

Since the vast majority of Canadian families depend on labour market earnings as their primary income source, trends in the level of real wages are key to their economic well-being — and the crucial novelty of Canadian economic events since

FIGURE 4 Family After-Tax Income By Percentile 1976–2004, 2004\$



Note: Income figures are on an adult-equivalent-adjusted basis.
Sources: Statistics Canada, Survey of Consumer Finances and Survey of Labour and Income Dynamics.

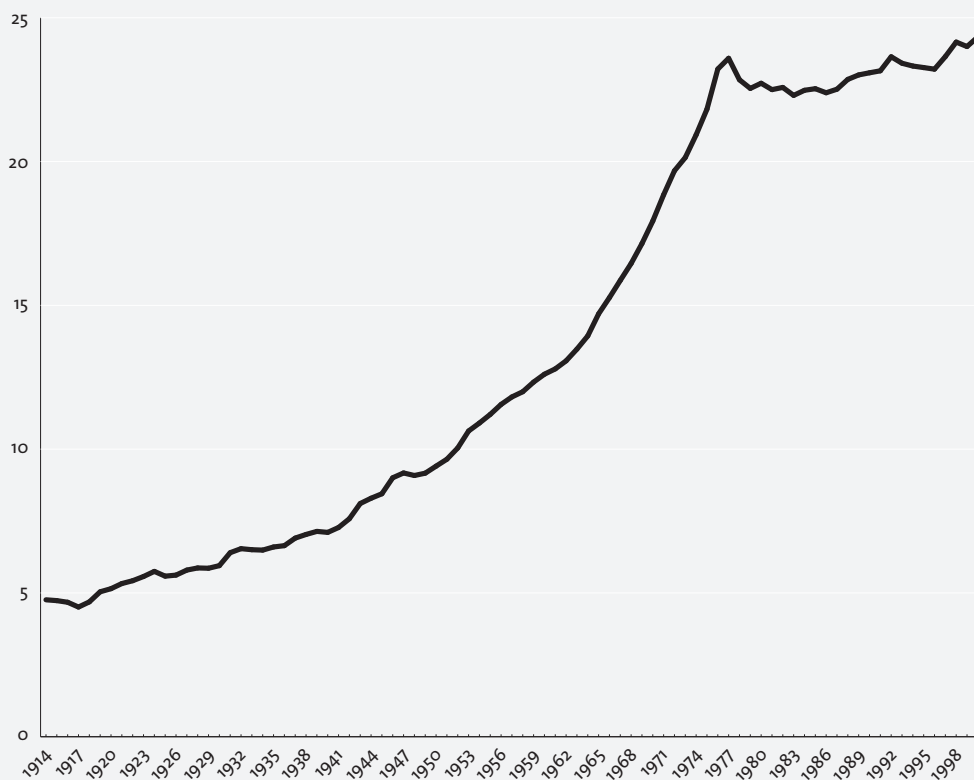
SOURCE Heisz (2007:34)

1979 is the fact that the growth of average real wages largely halted. Figure 5 plots the real value (in 2006 dollars) of average hourly employee compensation since 1914 in order to make the point that the lack of growth in average real wages since 1979 is a dramatic change from Canada’s historical experience. This slowdown in growth of average real hourly labour compensation has now gone on long enough that is the ‘new normal’ — which poses distinct problems for a rationalization of inequality as the price society pays for vigorous increases in average absolute living standards.

Figure 5 is based on the total compensation of employees, including the cost to employers of any fringe benefits, as measured in the national income accounts. It is thus not quite comparable to the data on trends reported in Tables 1 to 3 and Figures 1 and 2, which do not include the value of fringe benefits received. Figure 6, on the other hand, is comparable, because it includes only direct wage payments. It is taken directly from Morissette and Johnson (2005) and illustrates the remarkable constancy in the distribution of real hourly wages between 1981 and 2004 in Canada.

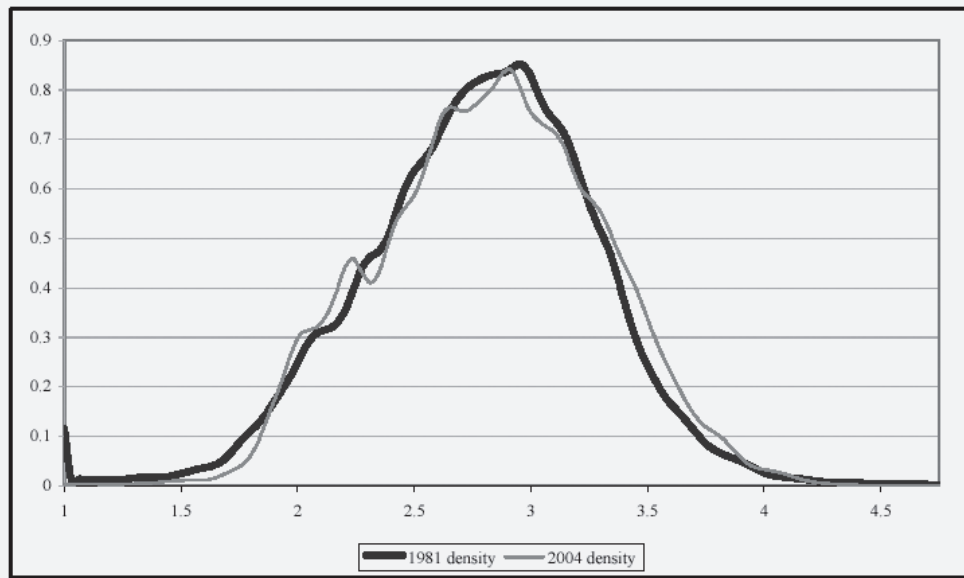
Morissette and Johnson consider all male and female workers jointly (often they are separated) and examine the distribution of *hourly* wages (often the focus is annual earnings, which mingles the impacts of changes in hourly wages, weekly hours

FIGURE 5 Real (2006\$) Average Hourly Wage in Canada 1914–2000



SOURCES 1914–1960: Urquhart, MC and K. Buckley (eds) “Historical Statistics of Canada”; 1961–2000 CANSIM I series 1603501 (matrix 9467) CANSIM II series V717706 (table no. 3830003), CPI-CANSIM I series P100000 matrix 9940, CANSIM II series V735319 table no. 3260001

FIGURE 6 Density of Log Hourly Wages of Employees Aged 25–64 1981–2004



Source : Survey of Work History of 1981; Labour Force Survey of 2004.

SOURCE Morissette and Johnson (2005: 42)

and weeks worked per year). Nevertheless, several important trends would have been expected to produce higher individual wages — e.g. there has been a substantial improvement in the education of Canadian workers, and, between 1980 and 2004, the average experience and skills of the workforce increased as the “Baby Boom” cohort aged into their forties and fifties.

Figure 6 is noteworthy because — as many studies¹⁵ have demonstrated — there have been significant changes in the inequality of wages and earnings between and among particular groups of workers. Earnings inequality among men has increased, even if this is not true for women (who comprise an increasing fraction of the labour force) — although increased *earnings* inequality is partly driven by greater polarization in hours worked, with more people working very long hours and more people also working part time. Economists can explain some of the trends in earnings by accounting for the impacts of increasing levels of education, greater work experience, union status, etc — but the *unexplained* variation in wages has also increased.¹⁶ There are substantial debates on trends in the size of earnings differentials between men and women, between the less educated and the more educated and between birth cohorts — indeed, much of the labour economics literature focuses on earnings differentials between and among types of workers, and how these relative advantages have changed over time. Figure 6 should be interpreted with the proviso that the household survey data used by Morissette and Johnson will not fully capture trends in the very top or very bottom end tails of the distribution, as Frenette et al (2007) noted in another context. But, given that proviso, it illustrates the fact that for the

vast majority of Canadian workers, *shifts in relative advantage have occurred within a remarkably constant aggregate distribution of real hourly wages.*

The basic contrast is a stark one. From 1946 to 1980, family incomes grew at all points in the distribution, so incomes *shares* remained roughly unchanged, and median family incomes and living standards rose rapidly. In the 1981 to 2006 period, when the gains from growth went to the top end of the distribution, real incomes for most families stagnated. As Green and Kesselman note, rising pre-tax inequality was largely offset by the tax-transfer system until the mid-1990s, but since about 1995 changes to the tax and transfer system “actually accentuated increases in inequality” (2006:6).

An apparent puzzle in all this is to reconcile the rising inequality in *annual family incomes* with the picture of a roughly constant distribution of *individual hourly wages* in Figure 6. The reconciliation is that the hourly wage is only one component in the determination of the Annual Net Income of each person. As equation [1] notes, money income is the sum of all financial returns from the ownership of capital, plus earnings in the labour market, plus any net government transfers (i.e. total receipts from government minus taxes paid).

[1] Individual Net Annual Income

$$\begin{aligned} &= \text{Capital Income} + \text{Labour Earnings} + \text{Net Transfer Income} \\ &= (\text{rate of return}) \times (\text{Stock of wealth owned}) \\ &\quad + (\text{hourly wage}) \times (\text{hours worked weekly}) \times (\text{weeks worked per year}) \\ &\quad + \text{Government Transfer Income} - \text{Taxes Paid} \end{aligned}$$

And the total income of each family is the sum of the Net Annual Income of *all* family members.

[2] Net Annual Family Income

$$\begin{aligned} &= \text{Net Annual Income of Family Head} \\ &\quad + \text{Net Annual Income of Spouse (if any)} \\ &\quad + \text{Net Annual Income of any other family members} \end{aligned}$$

Writing it out helps to make clearer how the evolution of inequality in *net annual family income* depends on a complex of factors. Changes in the inequality of *any* of the components of net family income (or changes in the correlation of components) will affect aggregate economic inequality.

For example, household composition (i.e. the processes determining formation, dissolution, and size of families) affects economic inequality because household income depends on the total income of all household members — if more women keep working for wages after marriage and if more high income males tend to marry high income females, there will be more ‘power couples’ with two high incomes, and inequality in family income will increase. When the divorce rate rises, household splits tend to produce poor female-headed households with children, while ex-husbands often retain their higher earnings — which increases inequality among family units in the lower part of the distribution.

Because each person's individual income from labour is their average hourly wage rate multiplied by their total work hours, earnings inequality depends just as much on trends in the inequality in working hours as on trends in hourly wage inequality. Changes in the distribution of work hours across employees depend both on the percentage of workers with part-time, regular and overtime weekly hours and on the distribution of weeks worked per year. In Canada, there has been both a trend to greater polarization of weekly working hours (which tends to increase the inequality in annual earnings) and a strong long run trend for married women to enter the labour market and to increase their weeks of paid work. Although it is clear that rising female labour force participation has pushed up average family money incomes (albeit at the cost of less home production and leisure, and a more time-pressured life style), its impact on the inequality of family money income depends on the correlation of male and female earnings. Cyclical swings in unemployment (such as the severe Canadian recessions of the early 1980s and 1990s) also strongly affect the distribution of labour earnings (both immediately and in the long-term earnings of laid off workers).

Other complications include the fact that, like other OECD nations, Canada has had a falling birth rate, so to compare the inequality of economic well being over time one should calculate 'equivalent income', and adjust the data on family incomes to account for declining household size. Because the minority who have substantial capital income are heavily represented at the top end of the income distribution, the upward shift in real interest rates since 1980 has also affected the trend in inequality. However, a unique feature of the Canadian experience is the fact that the implementation of the Canada/Quebec Pension Plan and Old Age Security/Guaranteed Income Supplement programme for seniors in the early-1970s and the subsequent maturation of the system produced a strong trend to diminished poverty among the elderly between 1980 and 2005.

The purpose of this recap of some of the long list of influences on the inequality of household money income is to emphasize the roles played by a multiplicity of variables, some of which are heavily influenced by the public policies of governments, but some of which depend more on technological, cultural and social shifts (which vary over time and space). As a consequence, Brandolini (1998, p. 38) has argued: 'Neatly defined and unambiguous trends are unlikely to result from this multiplicity of factors.' And as Atkinson (1998), Brandolini (1998), Osberg (2000) and Forster (2005) have demonstrated, in recent decades there have been clear trends in inequality in some countries in some periods, but there is no universal trend in all countries and all periods.

This conclusion is important because a narrow focus on one or two countries with similar trends to greater inequality can lead to the TINA ("There Is No Alternative") conclusion that a trend in inequality is inescapable — from a basic ignorance that alternative outcomes are actually happening. In international comparisons, Canada now has more inequality than many European countries, but still somewhat less inequality than the United States. Further increases in inequality are not inevitable. As

a number of authors have noted,¹⁷ a number of different social and economic models — with quite different implications for economic inequality — are able to produce high levels of employment and economic growth and to compete quite successfully in the global economy. The question for Canadian political economy is to choose among these available social alternatives.

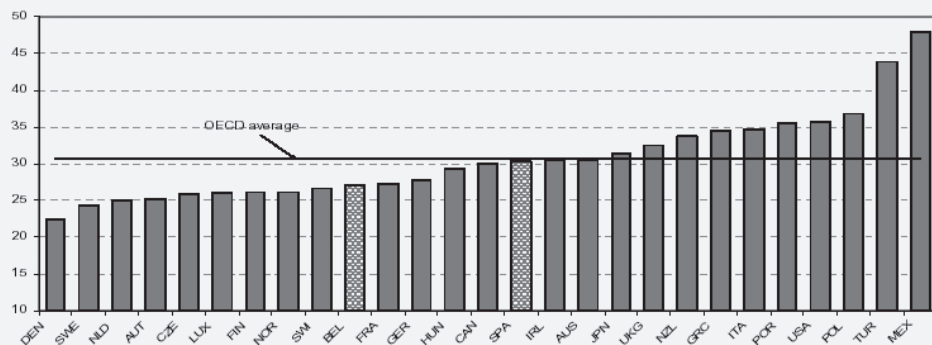
TABLE 4 Overall Trends in Income Inequality: Summary Results for the Entire Population

	<i>Strong decline</i>	<i>Moderate decline</i>	<i>Small decline</i>	<i>No change</i>	<i>Small increase</i>	<i>Moderate increase</i>	<i>Strong increase</i>
Mid-1970s to mid-1980s	Greece	Finland Sweden	Canada		Netherlands	United States	United Kingdom
Mid-1980s to mid-1990s		Spain	Australia Denmark	Austria Canada France Greece Ireland	Belgium Germany Luxembourg Japan Sweden	Czech Rep. Finland Hungary Netherlands Norway Portugal United Kingdom United States	Italy Mexico New Zealand Turkey
Mid-1990s to 2000		Mexico Turkey	France Ireland Poland	Australia Czech Rep. Germany Hungary Italy Luxembourg Netherlands New Zealand Portugal United States	Austria Canada Denmark Greece Japan Norway United Kingdom		Finland Sweden

Note: "Strong decline/increase" denotes a change in income inequality above +/- 12%; "moderate decline/increase" a change between 7 and 12%; "small decline/increase" a change between 2 and 7%; "No change" changes between +/- 2%. Results are based on the values of the Gini coefficient in four reference years which may vary among countries. "2000" data refer to the year 2000 in all countries except 1999 for Australia, Austria and Greece; 2001 for Germany, Luxembourg, New Zealand and Switzerland; and 2002 for the Czech Republic, Mexico and Turkey; "Mid-1990s" data refer to the year 1995 in all countries except 1993 for Austria; 1994 for Australia, Denmark, France, Germany, Greece, Ireland, Japan, Mexico and Turkey; and 1996 for the Czech Republic and New Zealand; "Mid-1980s" data refer to the year 1983 for Austria, Belgium, Denmark and Sweden; 1984 for Australia, France, Italy and Mexico; 1985 for Canada, Japan, the Netherlands, Spain and the United Kingdom; 1986 data for Finland, Luxembourg, New Zealand and Norway; 1987 for Ireland and Turkey; 1988 for Greece; and 1989 for the United States. For the Czech Republic, Hungary and Portugal, the period mid-80s to mid-90s refers to early to mid-90s.

Source: Computations from OECD questionnaire on distribution of household incomes.

FIGURE 7 Gini Coefficients of Income Concentration in 27 OECD Countries, Most Recent Year



Note: The income concept used is that of disposable household income, adjusted for household size ($e=0.5$). Gini coefficients multiplied by 100. "Most recent year" refers to the year 2000 in all countries except 1999 for Australia, Austria and Greece; 2001 for Germany, Luxembourg, New Zealand and Switzerland; and 2002 for the Czech Republic, Mexico and Turkey; In the case of Belgium and Spain (countries shaded in the figure), the data refer to 1995.

Source: Calculations from OECD questionnaire on distribution of household incomes.

Figure 7 and Table 4 are taken directly from Forster and d'Ercole (2005), and illustrate the range of outcomes found in international comparisons.

Nevertheless, even if there is no universal long run trend to greater inequality in OECD nations, there has been a clear recent trend to greater inequality in family incomes in Canada. Because the trends in the income shares of the very top of the income distribution are most pronounced, the next few sections will examine trends in:

1. the rate of return to capital;
2. the inequality of wealth ownership;
3. the income share of very high income taxpayers;
4. the transfer income of the least well-off.

Under Examined Issues in Canadian Inequality

2.1 THE IMPACTS OF INTEREST RATES

Traditionally, the analysis of economic inequality focused almost entirely on the shares of capital and labour in total income. In 1831, David Ricardo argued that because the produce of the earth is divided among the three classes of the community which own land, labour and capital: “To determine the laws which regulate this division is the principal problem of political economy.” Some years later, Karl Marx also emphasized the conflict between bourgeoisie and proletariat over the distribution of income, and for many years thereafter the distribution of national income into factor shares — i.e. between capital and labour — remained a major focus of the economics literature. However, relatively little attention has been paid to trends in capital’s share and labour’s share in recent years in Canada. This ought to be surprising, since there have been substantial changes in the real return to capital, and in a market economy it is always true that the distribution of income will necessarily depend on both labour earnings and income from capital.

A quarter century ago, circa 1980, someone who wrote about economic inequality in Canada was writing about a country in which real wages had been rising strongly — pushing up family incomes and labour’s share of national income. However, in

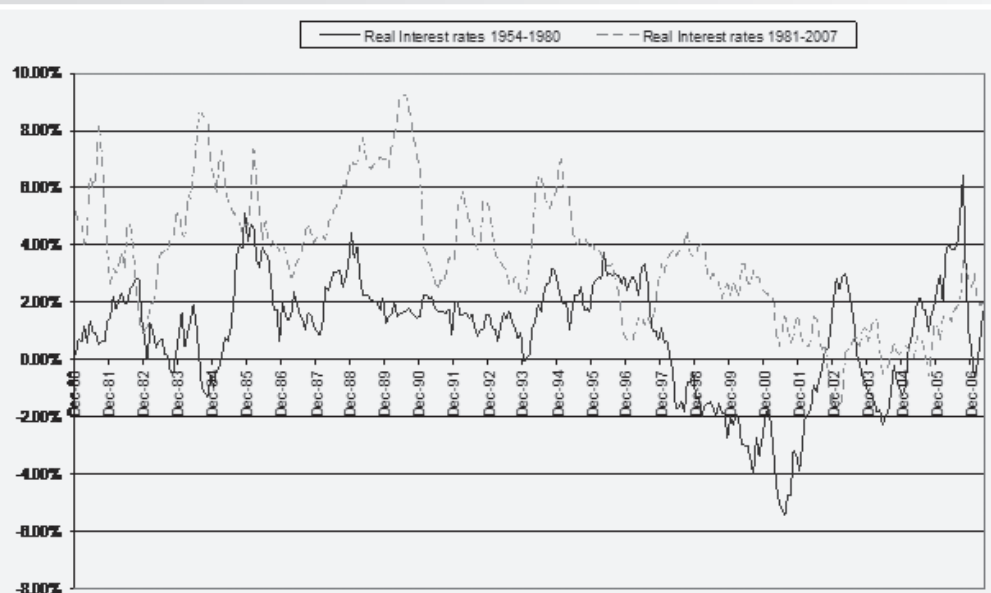
retrospect it is clear that things were about to change — the period since 1981 has seen a fall in labour’s share in Canada (see Russell and Dufour, 2007).

In 1980/81, both the U.S. Federal Reserve and the Bank of Canada hiked interest rates to unprecedented levels¹⁸ to restrain aggregate demand and control inflation, precipitating the then worst economic downturn since the 1930s. Monetary policy in Canada since then has focused solely on inflation control — an emphasis formalized in the adoption of an explicit target range for inflation (currently 1% to 3%), which substitutes for the balance of objectives¹⁹ written into the Bank of Canada Act. Not coincidentally, the twenty year period from December 1980 to January 2001 was marked by a very substantial increase in real interest rates. Figure 8 plots the short-term risk-free real interest rate — the difference between the 90-day Treasury Bill rate and current CPI inflation. For comparison purposes, it shows both real interest rates from 1981 to 2007 and the real interest rate 26 years earlier.

Between 1954 and 1980, there were substantial fluctuations in real short-term interest rates in Canada but the average, for that entire period, was low (0.94%). Over the next 20 years they averaged 4.42%, almost 3.5 percentage points higher — certainly a dramatic contrast to the stagnation in the real hourly wage of labour over the same period.

However, although a higher real rate of return is clearly important for those who own substantial capital, for most of the population the bigger story about interest rates is the delayed impact of monetary policy on government deficits, and of government deficits on transfer programmes. As Green and Kesselman (2006:25) note, in Canada there was a “sea change in the impact of tax and transfer policies on in-

FIGURE 8 Real Short-Term Interest Rates in Canada
90-Day Treasury Bill Rate – Current CPI Inflation



SOURCE CANSIM V122484, V735319

equality in the last half of the 1990s” as both provincial and federal governments cut back on unemployment insurance and social assistance in order to meet deficit reduction targets. These deficits were primarily precipitated by earlier monetary policy decisions. Beginning in 1989, the Bank of Canada raised interest rates, with the policy objective of reducing inflation — real interest rates peaked at a historic high of over 9%, between May and July of 1990, precipitating the recession of 1991 to 1994. The ensuing decline in economic activity produced a toxic combination of declining tax revenue and escalating transfer payments, but even more important for the growth in government deficits in Canada was the escalation of interest payments on past debt.²⁰

Since 2000, real interest rates have returned to a range more similar to their historic values, but when real interest rates remain high for long periods of time, the logic of compound interest accumulates in its impacts. Those families with initial stocks of wealth benefit from compound growth in their assets, while those with initial net liabilities find it harder to escape their increasing debts. There is, therefore, a long-term impact of high interest rates on the inequality of Canadian wealth ownership, in addition to their past impacts on the tax and transfer system.

By 2006, total employee compensation was only slightly over half of GDP in Canada (51%²¹) — so the determinants of inequality in the incomes from capital have to be a crucial part of any story about economic inequality. The income each family receives from its ownership of capital is the rate of return multiplied by the stock of wealth held. However, although there is some inequality in rates of return, this is likely a relatively small influence on the inequality of capital income — not least because the function of capital markets is to arbitrage between investment opportunities, thereby tending to equalize rates of return. The far more important issues for economic inequality are the general level of interest rates (illustrated in Figure 8) and the inequality of wealth ownership — to which we now turn.

2.2 WEALTH INEQUALITY

Up to this point, we have been considering inequality in annual income flows, but taken literally, whether one is “rich” or “poor” at a point in time is an issue of assets — an individual’s stock of *wealth*. Table 5 presents the distribution of wealth among Canadian households, and shows much the same pattern as the income distribution shown in Tables 1 and 3 — all the gains of growth since 1980 have been received by the top 10% of the distribution.

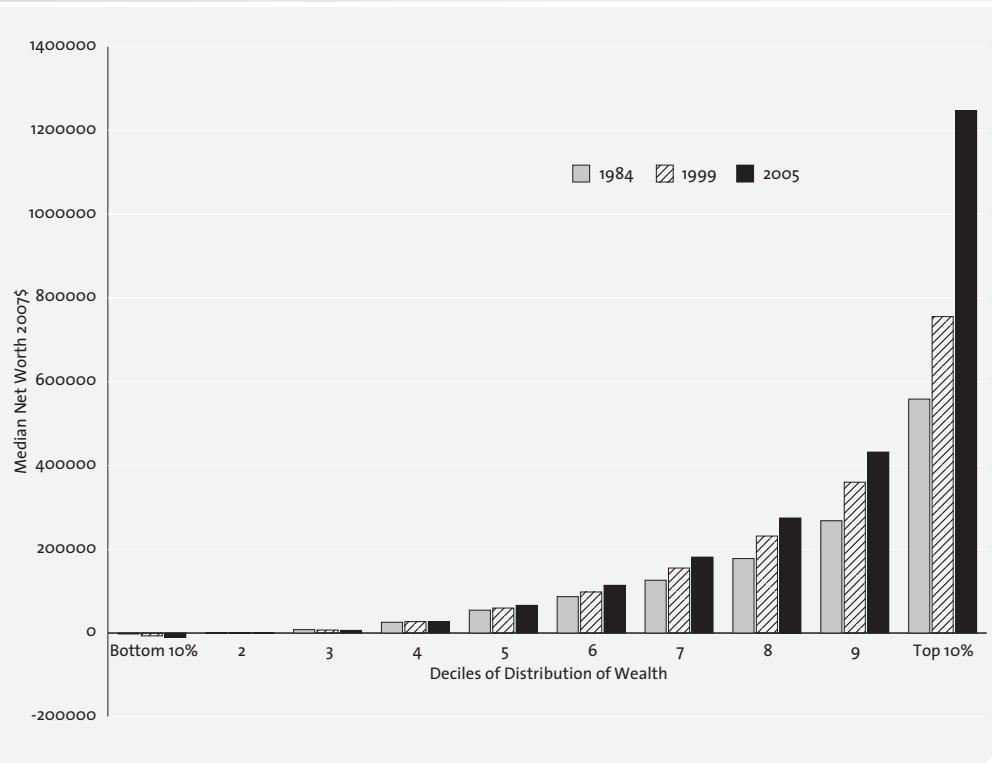
Reliable Canadian surveys of the distribution of wealth are fairly infrequent — Osberg (1981) relied on Statistics Canada surveys done in 1970 and 1977, and although other surveys have been done in 1984, 1999 and 2005, there were none in between. Furthermore, since the billionaires of this world are so few in number, and so likely to refuse to answer questions, the wealth of the very rich is often missed in these

TABLE 5 **Shares of Wealth** The Net Worth of Canadian Family Units, 1970–2005

	1970 share	1977 share	1984 share	1999 share	2005 share
Bottom 10%	-1	-0.6	-0.5	-0.6	-0.6
2	0	0.1	0.1	0	0
3	0.3	0.6	0.5	0.4	0.2
4	1.3	1.7	1.7	1.3	1.1
5	3	3.6	3.5	2.8	2.5
6	5.4	6	5.6	4.7	4.4
7	8.3	8.6	8.2	7.4	6.9
8	11.8	12	11.5	11	10.5
9	17.6	17.5	17.5	17.4	16.8
Top 10%	53.3	50.6	51.8	55.7	58.2

SOURCES “Revisiting Wealth Inequality” by René Morissette and Xuelin Zhang Perspectives on Labour and Income December 2006, Cat.No. 75-001=XIE Statistics Canada Table 3-2 Osberg *Economic Inequality in Canada* Butterworth’s 1981: 36

FIGURE 9 **The Wealth of Canadian Families** 1984, 1999, 2005



surveys (and they do own a lot of wealth). Davies (1979) made a series of very careful adjustments to the data to account for under-reporting, and estimated that the share of the top 10% should be adjusted upward by about 4 percentage points (his estimate that in 1970 57.1% of wealth was held by the top 10% could be broken down

further to 18.8% by the top 1%, 24.1% by the next 4% and 14.2% by the next 5%). The same type of adjustments should very likely be made today.

Nevertheless, the available Statistics Canada data do indicate unambiguously that wealth inequality has increased in Canada. From 1984 to 1999 and from 1999 to 2005, the Gini index of inequality in the distribution of wealth increased from 0.691 to 0.727 to 0.746.²² The wealth of the poorest 40% of the distribution of Canadian families stagnated or actually fell over this 21-year period, but the wealth of the top deciles rose substantially — and the further up one goes, the larger the rate of gain. For example, (measured in constant 2007 dollars) the median net worth of the top 10% was \$1,244,000 in 2005, \$754,000 in 1999 and \$557,500 in 1984 — i.e. an increase of 65% in 2005 over 1999, and an increase of 35% in 1999 over 1984. But as Figure 9 indicates, there was no gain at all in the bottom half of the distribution, indeed the net worth of the bottom 10% of the distribution slipped from -\$2,200 to -\$10,000.

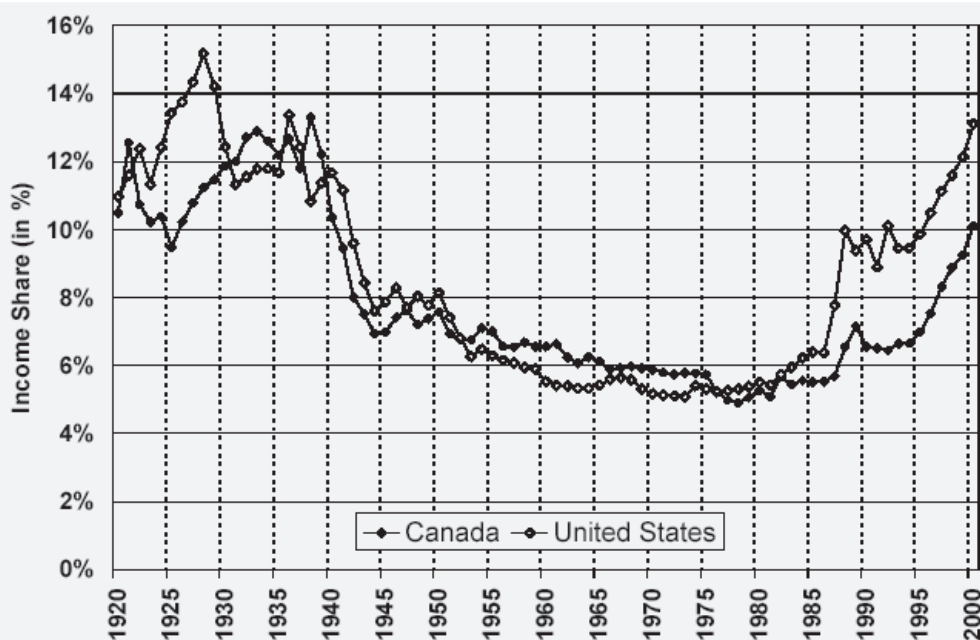
If \$557,000 had been invested in 1984 and had earned each month the current real interest rate on Canadian Treasury Bills, it would have accumulated to \$1,163,000 by 2005. Using the same interest rate, over the same period, a debt of -\$2,200 would only have accumulated to -\$4,800.²³ The logical implication of an era of higher interest rates is for both assets and liabilities to grow to larger magnitudes — which may explain part of the change in wealth for the top 10% and bottom 10%. But for the Canadian middle class, the issue to explain is why the wealth of the middle deciles grew so little.

Over the 1984 to 2005 period, Baby Boomers aged into their peak earnings years and Canada cut important pieces out of its social safety net.²⁴ The private assets of individual households, if available, have always been crucial to well-being in the retirement years and to enabling families to ride out short-term income shocks (like those due to major illness or layoff). Asset accumulation, for most households, is therefore more important now than it might have been in earlier times, since a higher fraction of Canadians are nearing retirement and ‘self-insurance’ against income shocks is now more important than ever, as the social insurance protections of the welfare state have been cut away.

2.3 INCOME SHARES OF THE VERY AFFLUENT

There is an ongoing debate in the economics literature about *why* the income share of the most affluent has increased in recent years — but there is little doubt²⁵ that it has gone up substantially. Piketty and Saez (2001) have used tax data to document how much income gains in the U.S. have been concentrated at the very top of the income distribution; Saez and Veall (2003) extended the methodology to compare Canada with the U.S. Figure 10 is taken from their work and illustrates the fact that the super-concentration of affluence in Canada has lagged that in the U.S. by a few

FIGURE 10 The Top 0.5% Income Share in Canada and the United States 1920–2000



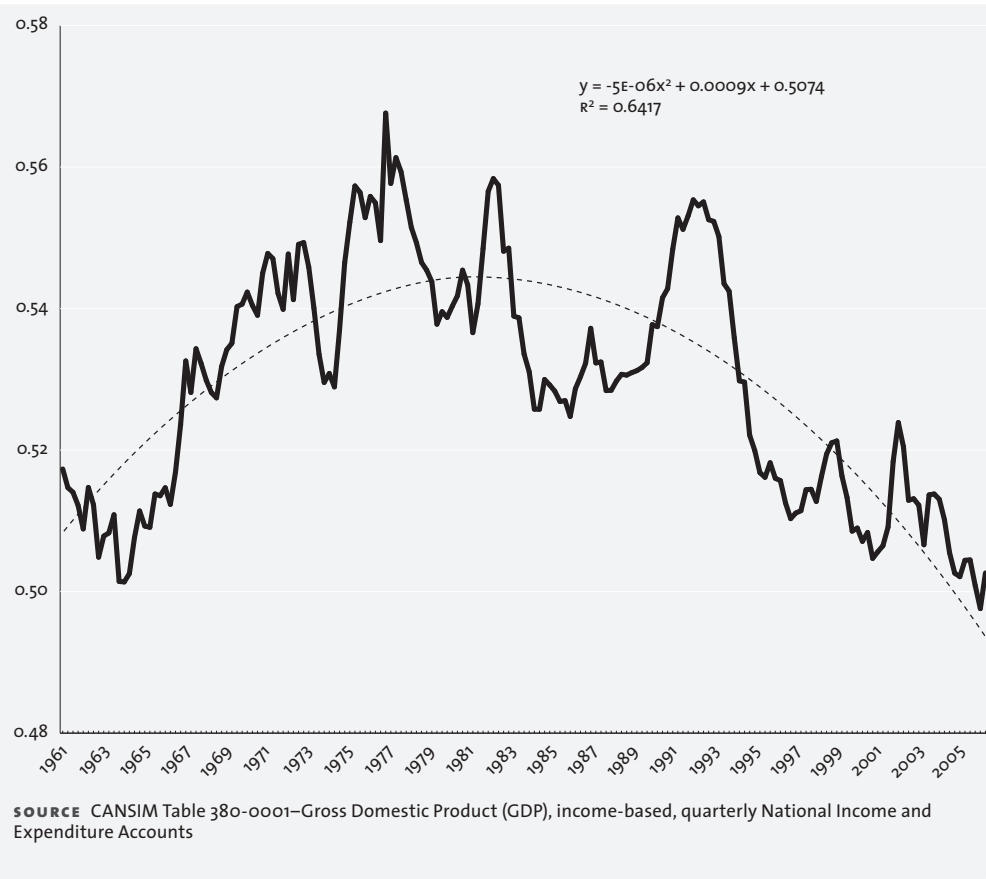
years — only really beginning to accelerate after about 1995 — but with very much the same trend.

Murphy, Roberts and Wolfson (2007) also compare Canadian and American incomes, noting that real incomes at the top of the U.S. income distribution continue to outpace real incomes at a comparable place in the hierarchy of Canadian incomes — to the extent that it is these differences at the very top end that drive the Canada/U.S. difference in average incomes. However, for approximately two-thirds of families (i.e. those at comparable points in the income hierarchy — up to about the 70th percentile), real income in Canada continues to be higher than in the U.S. — and not changing much over time.

In both Canada and the U.S., there are a crucial set of questions. As Table 3 indicated, the big trend of the 1990s for market incomes was the very large increase in income shares of the top 1%, and the even larger increases of the top 0.1% and top 0.01%. In Canada, the income share of the top 1% of individuals increased from 8.6% to 12.2%, with even higher proportionate increases for the top 0.1% and top 0.01%. But *why* have incomes at the top end of the income distribution been pulling away from the rest of the distribution? What's new about modern capitalism? There must have been some changes in capital markets or labour markets that account for these changes in market income shares — but how much is due to capital and how much to labour's share?

If one wants to examine trends in factor shares, a plot of 'wages, salaries and supplementary labour income' as a percentage of Gross Domestic Product (GDP) at

FIGURE 11 Employee Compensation as Share of GDP 1961–2006



market prices will show, as Figure 11 indicates, that the period since 1981 has seen a fall in Canada.

Since profits are very sensitive to swings in the business cycle, there are substantial fluctuations around the trend line, but a simple regression trend line fits the data fairly well and it is clear²⁶ that the share of employee compensation rises steadily from the early-1960s to the late-1970s before beginning a long downward trend. Figure 11 suggests two questions: [1] Can it be just coincidence that the peak share was the last year before the recession of 1981/82, and the advent of inflation-focused monetary policy? and [2] What is the relation between trends in income concentration and returns to capital (i.e. between Figures 8, 10 and 11)?

However, calculating capital's share and labour's share is complex²⁷ — and especially so when considering the income sources of the top 1%.

In general, 'thick' markets with many buyers and sellers operate differently than 'thin' markets, in which a few participants operate. Because there are so few people at the very top of the income distribution, the institutional mechanisms of compensation cannot work in quite the same way, and one implication is that the distinction between income from capital and income from labour can become blurred. Chief Executive Officers and professional hockey players, for example, negotiate

their individual compensation packages with the help of tax lawyers and financial planners — taking income as salary or as capital gains on stock options is one of the choices. Business owners and legal and medical professionals can operate as salaried employees or as individual self-employed service providers or as incorporated entities, so a positive cash flow can be paid out as salary or as dividends, or it can be retained as corporate earnings for later disbursement. Entire firms of professionals are available to assist with tax avoidance — and there are many more options for tax evasion than those open to hourly paid workers.

The problem of dividing the income of the owners of small businesses into a capital and a labour component has bedevilled national income accountants for generations — and it does not get easier when control diverges from ownership, as when the CEOs of large corporations have a degree of control over the executive compensation process to match their effective control over the capital stock, and their rewards depend on the amount of capital they control. Arguably, capital's share in national income should include income that derives from *control over* capital, as well as *ownership of* capital. Gabaix and Landier (2006, 2008), for example, explain the six-fold increase in CEO compensation in the U.S. between 1980 and 2003 as “an equilibrium consequence of the substantial increase in firm size” — differences in individual effort or talent or incentives or qualifications play a minor role.

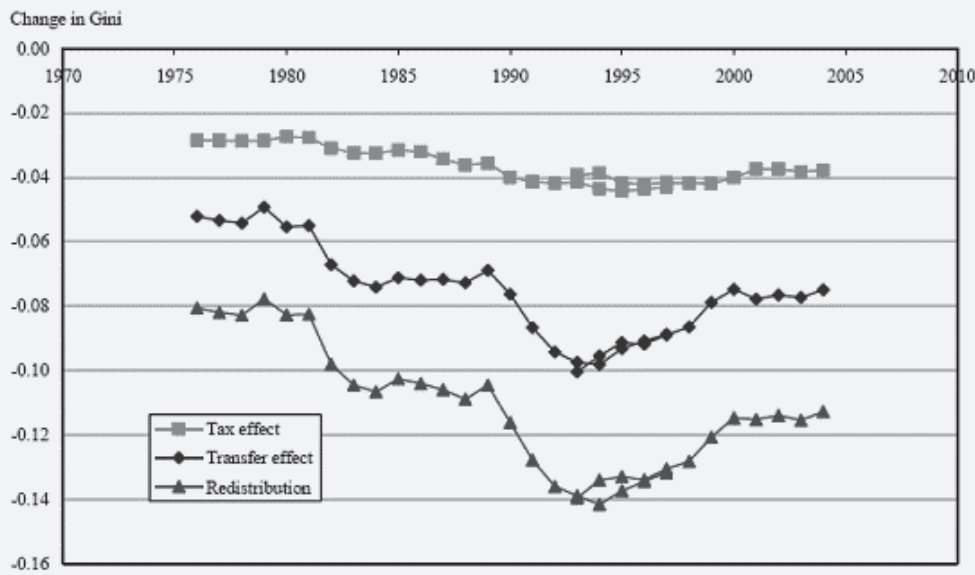
Categorization of the incomes of the very affluent into capital and labour components can thus be problematic — so there is an ongoing debate²⁸ on the relative importance of returns to capital and labour in explaining the recent rapid increase in the incomes of the most affluent.

2.4 TAXES, TRANSFERS AND THE WELL-BEING OF THE MOST DISADVANTAGED

Much more is now known about economic inequality in Canada than was the case a quarter century ago — many new data sets have become available, and the literature on the distribution of income has grown enormously. A major theme of that literature — both in Canada and internationally²⁹ — has been the importance of measurement issues to the perceived level of inequality. If, for example, we contrast the recent work of Murphy, Roberts and Wolfson (2007) summarized in Table 3 and the historic time series data reproduced in Table 1, it is immediately apparent that Table 3 presents much finer detail on the income distribution, which enables the reader to observe in Table 3 how changes in income shares are largely being driven by shifts at the very top of the income hierarchy.

Murphy et al can calculate reliable estimates of income shares in much finer detail because they are using income tax data, which collects millions of records, rather than voluntary survey data, which has far smaller samples and significant problems of non-response.³⁰ We can reasonably expect that the very affluent do file tax re-

FIGURE 12 Direct Effect of Transfers and Taxes on Inequality (Change in Gini Coefficient) All Families, 1976–2004



Sources: Statistics Canada, Survey of Consumer Finances and Survey of Labour and Income Dynamics.

SOURCE Heisz (2007:46)

turns — although there may be substantial variation in how much income tax they end up paying, after taking advantage of available tax planning alternatives (and the incomes that are channelled to corporate entities or foundations are missed entirely³¹). However, the poor (e.g. the homeless) are likely to be over-represented among non-filers of income tax returns, so income tax data provide a poorer picture of the bottom end of the income distribution.

Survey-based data provide the best picture of the ‘big middle’ of the income distribution, not least because surveys can ask the questions (e.g. about education or unemployment) which can help to *explain* inequality trends. The problem is that when the big change in market income trends is the pulling away of the top 1% of incomes, studies based on such surveys will necessarily miss the issue, although they can still provide reasonable estimates of the overall impact of taxes and transfers on inequality. Figure 12 is taken from Heisz (2007) and presents the trend in the impacts of taxes and transfers on the Gini index of inequality in Canada.

The ‘tax effect’ on the Gini index shown in Figure 12 is fairly small, and changes relatively little over the period. Recall, however, that the Gini index is a measure of inequality that is not very sensitive to income changes at the very top end and that the survey data underlying Figure 12 captures the top few percentiles with little accuracy. Figure 12 is consistent with the historical finding³² that, over most of the income distribution in Canada, the redistributive impact of taxes whose rates increase with income (i.e. income tax) has been largely offset by the taxes (e.g. payroll taxes, GST) whose burden falls more heavily on lower income groups. Hence, for most of

the population, the tax system as a whole has about the same total percentage impact over the income range.

However, survey data captures very poorly changes at the very top end. Murphy, Roberts and Wolfson (2007:15) report that while their income share rose by four percentage points, the effective income tax rate of the top 5% of taxpayers fell by an average 6% between 1992 and 2004, especially after the tax changes of 2000/01. Lee (2007) used a more comprehensive analysis of the incidence of the tax system as a whole and concluded: “Canadians in the top 1% of the income distribution saw their total tax rate fall by almost 4 percentage points between 1990 and 2005.” The erosion of the progressively redistributive part of the tax system was greater, the further up the income distribution one looks — for the top 0.01% of individual taxpayers (i.e. an annual income over \$3,008,000 in 2007 dollars) Murphy et al found that the average income tax rate dropped by a quarter, which clearly facilitated the increase in their share of after-tax income.

Figure 12 illustrates the fact that for most people transfer payments through pensions, unemployment insurance, social assistance and other programs are the main event in reducing income inequality — and between 1975 and 1995 that ‘transfer effect’ played an increasingly large role in offsetting inequality in Canada. However, after 1995 that effect turned around. The increase in interest rates of 1989/90, in combination with the inherited debt loads of federal and provincial governments, had created a deficit crisis — and the response of Canadian governments was to cut transfer payments. After 1995, ongoing changes in transfers rapidly reduced the redistributive role of the Canadian state.

So while the big news of the 1990s for market incomes in Canada was a stagnation of middle incomes and a ‘pulling away’ of top end incomes, Figure 12 illustrates how a big trend for net income (i.e. after taxes and transfers) has been the reduction in transfer income. This hits Canada’s poorest citizens hardest, since the people who are furthest below the poverty line are those (e.g. people with disabilities) who are unable to get any earnings at all while the people at the margin of poverty are more likely to be able to get some work in any given year. Survey data indicate that although there was not much overall movement in the poverty rate between 1981 and 2005, there was a significant increase in the per person poverty gap.³³

If the same broad trend (like the stagnancy of middle incomes) shows up in a variety of data sources, academics can be more confident of their perceptions of change in Canadian economic inequality. However, we also know that residence-based surveys (on which most academic studies of poverty and economic inequality have been based) will under-represent the most deprived segments of Canada’s population. So statistics about the poor must be compared to some of the daily reality checks of ordinary life.

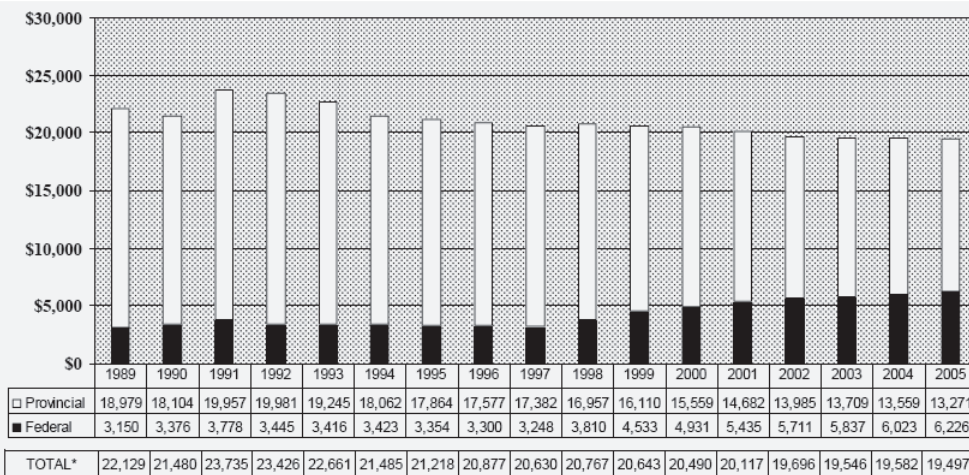
Part of the ‘new normal’ of Canadian urban life is daily observation of beggars at major urban intersections, homeless people on sidewalks and street people collecting bottles. I am old enough to remember that they weren’t always there. So,

like anybody else, when I look at the statistics on how much economic inequality in Canada has increased, and precisely when, I do a “reality check” against my personal experience. In particular, I ask myself: “Just when did the homeless first appear in such significant numbers on the streets of Canada’s cities?”

Because they do not have a residence at which they could be interviewed, the homeless have never been part of our statistical consciousness, so a precise answer is not easy to get. However, it is clear that they weren’t always so commonplace — during the early 1980s, when the Reagan administration had just begun to cut social assistance severely in the U.S., Canadians who traveled across the border would smugly contrast the “kinder and gentler” streets of Toronto or Vancouver to the nastier realities of New York and L.A., and a self-congratulatory Canadian national self-image took root. But that was then and this is now.

This article has summarized a great many statistics on economic inequality, but it is worth remembering that these numbers have a human rights dimension. When the Universal Declaration of Human Rights of the United Nations established a list of basic human rights in 1948, it specified a number of economic and social rights — e.g. Article 25 specifies the right to adequate “food, clothing, housing and medical care”. Because Canada is a signatory to the Universal Declaration and a number of other similar Human Rights Covenants, the United Nation’s Committee on Economic, Social and Cultural Rights periodically evaluates Canada’s human rights performance. In 1998, it concluded: “(24) The Committee is gravely concerned that such a wealthy country as Canada has allowed the problem of homelessness and inadequate housing to grow to such proportions that the mayors of Canada’s 10 largest cities have now declared homelessness a national disaster.”³⁴ In its 2006 report, it “regrets that most of its 1993 and 1998 recommendations have not been implemented” and in particular “notes with concern that in most Provinces and Territories, social as-

FIGURE 13 Alberta Welfare Income, Couple, Two Children 2005\$



sistance benefits are lower than a decade ago, that they do not provide adequate income to meet basic needs for food, clothing and shelter, and that welfare levels are often set at less than half the Low Income Cut-Off.”³⁵

At the same time that incomes at the top of Canada’s income hierarchy have grown dramatically, Canada’s least fortunate citizens have faced a substantially nastier economic reality. Reliable statistics on trends in homelessness in Canada are not available, but the National Council on Welfare has compiled data on the income of social assistance recipients from 1986 to 2005. Although Canada’s real GDP per capita grew by nearly 40% over this period, social assistance recipients in all Canadian provinces now have, after inflation, significantly lower real incomes than comparable individuals did 20 years ago. Figure 13 is taken directly from their 2006 report and presents the case of an Alberta couple with two children.

Much the same picture could be drawn for other provinces, but Alberta is a particularly interesting example. Although the federal government has increased its support of social assistance clients, Alberta — awash in oil and gas royalty revenues — has let inflation erode the real dollar value of its contributions to social assistance payments. For a married Alberta couple with two children, the real value of the provincial component of social assistance has been cut by just over 30% in this 20-year period — a process which still continues. Measured in 2007 dollars, the average poverty gap in Alberta using the before-tax LICO increased by about 25% — from \$4,370 per person in 1985 to \$5,440 in 2005.³⁶

Conclusion

ALTHOUGH IT IS a bit of a puzzle why so much of the literature has focused on trends in earnings in Canada, and so much less attention has been paid to the role of interest rates, the distribution of wealth and the incomes of the very affluent, Canada now has much more knowledge about economic inequality than in 1981 — and some broad conclusions are fairly evident.

In 1981, one could conclude that: “economic inequality has remained roughly constant since the Second World War”, but the same clearly cannot be said now. The last 25 years have seen a substantial increase in both the Gini index of inequality of total money income and the Gini index of inequality of wealth ownership. Both criteria clearly indicate an increase in economic inequality — in terms of after-tax income, primarily over the period 1995 to 2006.

However, any single index number of inequality (such as the Gini) must aggregate together changes at all points in the income hierarchy. If one examines trends at each point in the income distribution, a more subtle picture emerges. For roughly the middle 90% of Canadian families, the remarkable aspect of the quarter century from 1981 to 2006 is how little change there has been in the real value of family money income.³⁷ This implies that among this broad majority, the level of money income has been roughly constant, even as the top end of the income distribution has pulled away, particularly since the mid-1990s. Because incomes at the very top have risen strongly, while incomes elsewhere have stagnated, the income *share* of the top 5% of families rose by about a fifth,³⁸ and by even more, the higher one goes in the income distribution (e.g. by 44% for the top 1%).

In one respect, this last quarter century was a historic transition for Canadian society. Over the 1981 to 2006 period, the life experience of most Canadian families changed — the ‘new normal’ has been that entering cohorts of young workers earned less in real terms than their parents’ generation did at a comparable age. But in ‘local’ comparisons to others nearby in the income distribution, the relative constancy of real income among the middle 90% meant there was no great disruption of historic local differentials. In most of the income distribution, the fortunes of individuals rose and fell but the churning of rankings occurred within a fairly stable local structure of relative advantage. Murphy et al (2007) calculate, for example, that in 1982 \$69,000 was the income that divided the bottom three quarters and the top quarter of Canadian families — and in their 1992 data, the number was exactly the same.³⁹

In the distribution of income of all Canadian families, the increasing incomes of the top end have been driving trends in both average income and income inequality, and the farther up the distribution one goes, the greater the percentage increase. Explaining this trend is one issue, but understanding its implications is probably more important.

The economic debates on the distribution of income of 25 years ago sought to explain a perceived relative constancy of income shares. Some analysts argued for a ‘political economy’ perspective which emphasized the idea of an implicit social contract, in which both capital and labour could find advantages. Keynesian macro-economic stabilization gave capitalists a stable market demand while workers got full employment. Capitalists got security against expropriation while workers got social insurance via the welfare state. Against this ‘political economy’ perspective, there was the argument that the income shares were directly determined by the nature of the production function of firms — so a purely ‘economic’ model was sufficient.

Current debates on economic inequality have some of the same flavour. But they have a harder problem, since now one must account for both the timing and the magnitude of changes in income shares — and purely ‘economic’ explanations also have to explain why outcomes in different countries have diverged, at a time when the rapidity of communications and the globalization of markets would have been expected to produce roughly similar changes in technology across nations. In these debates, the inequality of earnings has received most of the attention, and there is vigorous discussion about the relative importance of ‘skill-biased technical change’, institutional trends (such as the decline of unionization) and the importance of globalization and demographic change — and on whether U.S. results can be generalized to the Canadian case.⁴⁰ But as Levy and Temin (2007) emphasize, looking at the importance of individual institutional factors on a ‘one at a time’ basis may miss the point. Declining unionization, a lower minimum wage, higher unemployment, less social insurance protection and more openness to international competition probably interact strongly in their impacts on inequality. If so, they should be viewed as a ‘policy package’, to contrast with the policy package of the period before 1980.

This essay has argued that the trend in concentration of wealth and in capital's share has received far too little attention in the Canadian debate — despite the fact that in 2006 about 49% of GDP did *not* go to employee compensation. It has also argued that the key issue to explain in Canada is the 'pulling away' of the very top end of the income distribution, particularly since the mid-1990s. It has mentioned briefly the competing 'political economy' and 'economic' hypotheses, without attempting to adjudicate between them.

However, whether or not the 'political economy' perspective is an accurate diagnosis of the causes of Canada's rising inequality, it is clear that the increase in inequality will affect Canada's political economy — to the extent that attitudes to acceptance of inequality outcomes change. As Figure 10 (and much other data) indicates, the trends to greater inequality, and a 'pulling away' of the most affluent, have been going on longer, and to a greater degree, in the U.S. than in Canada — which implies that there has been more time for income differences to widen and for U.S. attitudes to inequality to change.

Changes in public attitudes are likely to be affected by the fact that the level of annual income at the top of the distribution is changing, year by year, by absolute dollar amounts that are astoundingly large, from the point of view of most citizens. In Canada, Murphy et al (2007:Table 4) report that between 1992 and 2004 the average taxable income of the top 0.1% of families rose from \$1,270,000 to \$2,650,000 (measured in 2007 dollars). This doubling of family income of the top 0.1% reflects a compound rate of growth of 6.12% per annum. Continuation of this rate of income growth would imply that by 2007, the top thousandth would have had average real incomes of \$3,166,000 — an increase of \$516,000 in annual income in just three years. When incomes grow by rates like 6.1 % per year from a large base, and when those increases compound year after year, the dollar magnitude of *increases* rapidly becomes many times larger than most people's *total* income — five more years of 6.1% increases would imply another \$1,090,000 *increase* in annual income (i.e. by 2012).⁴¹

Although the rich may, much of the time, live separate lives from ordinary people, the sheer size of their income increases, year after year, creates the 'problem' of how to spend it all. If incomes elsewhere in the income distribution were growing at comparable rates, the gap between lifestyles might not be as noticeable, but that is not what is happening. Canada's observable social reality is one of ever larger monster homes, and an increasingly glaring contrast with the homeless who clutter the sidewalks, as the consumption patterns of the New Rich diverge increasingly from the living standards of most citizens. Can this be a sustainable long run trend?

In international comparisons of attitudes, the U.S. has been noteworthy for the polarization of its population between those who believe that earnings should be much more equal and those who believe that the status quo is 'fair' (Osberg and Smeeding, 2006). This bimodality of attitudes implies that the majority position can shift substantially, if a relatively few individuals change their positions — and there is some evidence that American attitudes to inequality have shifted in recent years. Table 6 is taken from Allen (2007).

TABLE 6 More See Social Divide in America, Fewer See Themselves on Top

	1988	2001	2007
Is America divided into “haves” and “have-nots”?			
Yes	26%	44%	48%
No	71%	53%	48%
Don't know	3%	3%	4%
If you had to choose, are you in the...			
Haves	59%	52%	45%
Have-nots	17%	32%	34%
Neither	24%	16%	21%

SOURCE Allen, J.T. (2007)

The message of Table 6 — that U.S. attitudes to economic inequality are shifting substantially — is even stronger in the analysis of Kohut (2007). Evidently, many Americans are coming to reject the proposition that the benefits of economic growth should be received entirely by the top few percentiles of the income hierarchy. Comparably recent Canadian data on attitudinal changes is not available — but it seems reasonable to expect similar developments in Canada, both because Canadian attitudes are likely to respond similarly to similar events and because the exposure of Canadians to U.S. media implies that American attitudinal and political shifts tend to influence trends north of the border.

Forecasting is difficult — it is much easier to see major economic shifts with the clear vision of hindsight. Viewed in retrospect, it is clear that my 1981 book on economic inequality in Canada was written at a time when the macroeconomic and social policy environment was about to change significantly. Nonetheless, that book did end with a conjecture that if economic growth were to slow or stop, there might be political pressure for changes in distributive shares, and it was not clear what that would produce. Would pressure for more redistribution be successful (maybe moving Canada towards a ‘Scandinavian’ model)? Would elites react repressively (perhaps pushing Canada in a ‘Latin American’ direction)?

As things turned out, the end of growth in real incomes (i.e. for most of the middle 90% of Canadians) has produced surprisingly little political fallout. One possibility for the future is that the last 25 years has been an aberration and we will soon see a resurgence of strong growth in average real wages.⁴² However, if future trends continue along the path of the last quarter century, most Canadians will continue to see income stagnancy. The political question for the future is whether or not their quiescence will continue. The inevitable logic of the compounding growth of high incomes is the increasingly conspicuous consumption of the elite, as incomes at the very top end pull ever farther away. And the basic question remains relevant — in which direction will Canada then choose to go?

Notes

1 Lars Osberg *Economic Inequality in Canada*, Butterworth Publishing Co., Toronto (1981), 236 pages

2 See CANSIM v480567, v466668, v742084-6, v742092-4

3 In Cambridge, USA the Solow balanced growth model and Cobb-Douglas production functions were popular — in Cambridge, UK, Kaldor’s models of unstable growth and Joan Robinson’s class conflict approach dominated.

4 More exactly, this paper examines trends up to the start of 2006, because 2005 is often the last full year of data available. To avoid ‘inflation-illusion’ dollar figures cited in the text have been adjusted using the Consumer Price Index CANSIM v735319 Canada; All-items (1992=100) and expressed in April 2007 dollar values.

5 There is a huge literature. A still-classic article is Atkinson (1970). Chapter 2 in Osberg (1981) discussed measurement issues in a Canadian context — Osberg (2001) revisited the issue; for a recent survey of the complexity of international trends, see Förster and d’Ercole (2005).

6 Figure 1 does not plot income changes for the bottom 20% of the distribution. Taxable Income for income tax purposes omits some income sources (e.g. social assistance payments) that can be important for low income households. As well, most analysts of economic inequality delete observations with negative incomes because such incomes can only occur when declared capital losses outweigh any income from other sources (which can only happen to a taxpayer with significant initial assets — e.g. stockbrokers — whose life situation is not one of deprivation). As Table 2 indicates, this was not done by Murphy et al. Very few people actually have negative incomes, but if a small number of people have large losses, it can outweigh the small incomes of the rest of the bottom decile. Hence, Figure 1 does not

plot income changes for the bottom 20% of the distribution — and the corresponding entries in Tables 2 and 3 should be interpreted cautiously.

7 In Table 2, the bottom 10% change from a negative to a positive family income between 1982 and 2004, but see note 5 above.

8 It is easy to check that 1992 clearly “Lorenz-dominates” 2004 in Table 3 — so all statistical measures of inequality (Gini, Theil, CV, etc.) will agree that in 1992 there was less inequality in Canada than in 2004.

9 See Osberg (1981, Chapter 2) or Jenkins (1991) for discussion of the properties of inequality indices.

10 See Statistics Canada *Income distributions by size in Canada* Catalogue 13-207, 1982 Table 1

11 The Senate report advocated the implementation of a Guaranteed Annual Income with a basic guarantee equivalent to 70% of their poverty line (in 2007 dollars, \$19,850 for a four person family) financed and administered by the Government of Canada. They also considered “that ‘full employment’ must be the prime objective and responsibility of government fiscal and monetary policy”. To put this in context, in October 2007 the minimum wage in Canadian provinces varied between \$7.25 (New Brunswick) and \$8.00 (BC, Alberta, Ontario, Quebec) per hour — implying an annual income somewhere between \$13,593 and \$15,000 (before any taxes or payroll deductions) for 50 weeks of work at 37.5 hours per week. However, at the time some staff researchers judged these recommendations insufficiently strong and resigned to author *The Real Poverty Report*.

12 Expressed in 2007 dollars, the median total income of all economic families in Canada in 1980 was \$64,600 — and twenty years later in 2000, it was virtually unchanged at \$64,950. The shifting proportion of unattached individuals and families meant that the median real income of all *family units* actually fell — from \$52,700 to \$48,560 — between 1980 and 2000. Elderly families saw increasing median incomes — but under 65 family types saw small losses. For example, over this 20 year period, married couples with one earner saw median total real income fall by 2.3%, while for two earner couples it fell by 1.3% (CANSIM Tables 202-0411 and 202-0403).

13 As a consequence, in Canada the median income has fallen substantially as a percentage of the average — for economic families, from 92% to 82.9% of the average. For family units, average income rose by 10% and median income declined as a percentage of the average from 89.4% to 77.4%. CANSIM Tables 202-0411 and 202-0403

14 An equivalence scale assigns to each household a number of “Equivalent Adults” N_{EA} which is some function of the number of household members N and, where Y_f is total household income, then calculates the equivalent income Y_i of each household member as $Y_i = Y_f / N_{EA}$. The question being asked is: “If a person were living alone, what income would be *equivalent* to their actual wellbeing, living in their actual household with its actual income (and assuming that all household income is shared equally)”. In the international literature, $N_{EA} = N^{0.5}$ is the common assumption, which Heisz (2007) adopts.

15 See, for example, those in Green and Kesselman (2006)

16 If the increase in unexplained variation just meant that the R^2 in economists' earnings regressions has fallen over time, it would have little significance for human welfare. But if it reflects an increase in the inherent uncertainty and instability of earnings which individuals can anticipate in future — as Cunha and Heckman (2007) have recently argued — this greater individual insecurity means workers are worse off. Osberg and Sharpe (2006) have argued that increased insecurity depressed economic well-being over the 1981–2005 period in Canada — notably due to the cuts in social insurance programmes after 1995 — but their data did not enable consideration of the welfare costs of greater individual uncertainty in offered wages.

17 see, among others, Helliwell (2002), OECD (2006), Osberg (2004), Lindert (2003)

18 The Canadian Treasury Bill rate peaked at 20.85% in August 1981 — CANSIM v122484.

19 The Bank of Canada Act of 1934 states that the Bank of Canada is “to regulate credit and currency in the best interest of the economic life of the nation, to control and protect the external value of the national monetary unit and to mitigate by its influence fluctuations in the general level of production, trade, prices and employment, so far as may be possible in the scope of monetary action, and generally to promote the economic and financial welfare of Canada.” Adoption of inflation control as *the* target of monetary policy is based on the belief that: “Experience in Canada and around the world has taught us that preserving confidence in the value of money is the unique contribution that monetary policy can make” Jenkins (2006).

20 See the chapters by McCracken and Kneebone in Osberg and Fortin (1996).

21 CANSIM: v498076 Wages, salaries and supplementary labour income/v498074 Gross Domestic Product (GDP) at market prices

22 René Morissette and Xuelin Zhang (2006) “Revisiting wealth inequality”, *Perspectives on Labour and Income* December 2006 Statistics Canada — Catalogue no. 75-001-XIE.

23 These are not intended as ‘realistic’ calculations, because poor Canadians do not get to borrow at the Treasury Bill rate, because rich Canadians can easily earn a higher rate of return on their assets, and because current savings add to wealth accumulation while current consumption subtracts from it. The point is just to indicate how much of top end wealth accumulation could potentially be explained by changes in the risk free rate of financial return.

24 A commonly used indicator of the availability of (un)employment insurance benefits is the B/U ratio — i.e. the number of regular UI/EI beneficiaries as a percentage of the number of unemployed. In 1989/90, this ratio was 0.74 but by July 1997 it had been cut to approximately 0.38, where it has stayed, up to July, 2007.

25 See http://economistsview.typepad.com/economistsview/2007/01/thomas_piketty_.html for the online debate, in which Piketty persuasively rebuts critics.

26 Labour's share of *Net* Domestic Product shows a much less stark trend from 1981 to 2006 (still down, but less so). The difference between *Net* and *Gross* Domestic Product is primarily Capital Consumption Allowance, but *should* that be netted out before Capital's share is calculated? For most analytic purposes, GDP is the appropriate measure of the total value of current economic activity which generates factor incomes — and retained depreciation

allowances remain under corporate control. Arguably, if we are examine only net capital income (i.e. net of depreciation), we should compare that with net labour income (i.e. net of depreciation of human capital) — but this is not done.

27 In aggregate, when one thinks of ‘Labour’s share’, should one add in the ‘Net income of non-farm unincorporated business, including rent’ on the grounds that part of the income of the self-employed is due to their labour? This adjustment would blur, but not reverse, the time trend of Figure 11 but the division of self-employment income between capital and labour returns has long been problematic.

28 See also Wolff and Zacharias (2007).

29 See, for example, Atkinson and Brandolini (2001).

30 These differences in methodology also imply subtle differences in income concept (taxable income versus total monetary income) and in recipient unit — but these are of secondary importance, at least for the top end.

31 Footnote 6 in Murphy et al (2007) notes: “An unknown number of high-income individuals and families receive business income through a corporation, and may hold investments in corporations, trusts, or charitable foundations. These are used in sophisticated tax planning and are not considered in this analysis because of data limitations.”

32 See Gillespie (1976, 1980); Osberg (1981; Chapter 12).

33 The Survey of Consumer Finance was replaced by the Survey of Labour and Income Dynamics after 1998. Statistics Canada does not publish a ‘poverty line’ estimate, but it does publish a “low-income cut-off” — the LICO, which others commonly use as a poverty line. There are two versions — ‘before-tax’ and ‘after tax’. By either criterion, the poverty rate in 2003 was exactly the same as in 1980 (11.6% by the after-tax criterion, 16.0% by the before-tax line). By both criteria, the *rate* of poverty declined 2003–2005 (by 0.8% and 0.7% respectively). But the average poverty gap per poor individual increased by 11% — measured in 2007 dollars, from \$4490 in 1980 to \$4,770 in 2003 and \$4920 in 2005 (before tax LICO — similar trends for after tax LICO). See CANSIM v25746686, v25746677, v1560773 to v1560776.

34 [http://www.unhchr.ch/tbs/doc.nsf/\(Symbol\)/E.C.12.1.Add.31.En?OpenDocument](http://www.unhchr.ch/tbs/doc.nsf/(Symbol)/E.C.12.1.Add.31.En?OpenDocument)

35 See <http://www.ohchr.org/english/bodies/cescr/docs/E.C.12.CAN.CO.5.pdf> which lists some 33 specific human rights inadequacies.

36 See CANSIM v25746884, v1562218.

37 This is *not* to say that their economic well-being has remained unchanged — over the same period, families have increased their supply of paid labour hours and Canada’s income security programmes have been cut dramatically, so the attendant losses in utility due to decreased leisure time and increased economic insecurity should be calculated as reductions in well-being. See Osberg and Sharpe (2005).

38 The income share of the top 5% increased by 4.2 percentage points between 1992 and 2004, from 19.9% to 24.1% — which is approximately the *entire* income share of the bottom quintile. Most of that (3.4 percentage points) was received by the top 1%, who increased their share from 7.8 to 11.2% — see Table 3.

39 Indeed, their Table 2 indicates that the maximum change between 1982 and 1992 in income thresholds for any percentile below the 90th was \$3,000. From 1992 to 2004, there were upward shifts in income ranges — the fourth quintile of families, for example, spanned the range \$49,000 to \$77,000 in 1992, and the range from \$55,000 to \$88,000 in 2005 — but the changes for percentiles below the 90th were small compared to those above — e.g. increase in the threshold for the top 0.1% (from \$546,000 to \$1,045,000).

40 See, for example, Autor, Katz and Kearney (2005), Burbidge, Magee and Robb.(2002), Card and DiNardo (2002).

41 The 1992–2004 rate of increase in annual incomes for the top 0.01% was higher — 7.36% per annum. With a higher rate of increase on a considerably larger base (i.e. \$8,966,000 in 2004), the implication is that their average real taxable annual income would have *increased* by over \$2million per year by 2007, and will *increase* by another \$6.9 million by 2012.

42 Rising real wages could come from a scenario in which demographic decline in labour supply encounters a resource-boom based surge in demand for labour, and rises in real wages are not choked off by monetary policy. However, this would probably require a change in the inflation targets of the Bank of Canada, which seems unlikely to occur.

References

- Allen, J.T. (2007) "A Nation of "Haves" and "Have-Nots"? Far More Americans Now See Their Country as Sharply Divided Along Economic Lines" Pew Research Center for the People & the Press, <http://pewresearch.org/pubs/593/haves-have-nots>.
- Atkinson, A.B. (1970) "On the measurement of inequality". *Journal of Economic Theory* 2: pages 244 to 263.
- Atkinson, A.B. and Andrea Brandolini (2001) "Promise and Pitfalls in the Use of "Secondary" Data-Sets: Income Inequality in OECD Countries as a Case Study" *Journal of Economic Literature* Vol. 39, No. 3, pp. 771–799.
- Atkinson, A. B. (2003) "Income Inequality in OECD Countries: Data and Explanations" *CESifo Economic Studies*, Vol. 49, 4/2003, 479–513 Ifo Institute for Economic Research, Munich.
- Autor, D., L.F. Katz and M.J. Kearney (2005) "Trends in U.S. Wage Inequality: Re-Assessing the Revisionists" MIT Department of Economics Working Paper No. 05-21; Harvard Institute of Economic Research Discussion Paper No. 2095.
- Beaudry, P. and D.A. Green. (2000). "Cohort Patterns in Canadian Earnings: Assessing The Role of Skill Premia in Inequality Trends." *Canadian Journal of Economics*. 33(4):907–936.
- Brandolini A. (1998) A bird's-eye view of long-run changes in income inequality. Mimeo, Research Department, Bank of Italy, August.
- Burbidge, J.B., L. Magee and A.L. Robb. 2002. "The Education Premium in Canada and the United States." *Canadian Public Policy*. 28(2):203–217.

- Card, David and John E. DiNardo (2002) Skill-Biased Technological Change and Rising Wage Inequality: Some Problems and Puzzles *Journal of Labor Economics*, 2002, vol. 20, no. 4.
- Cunha, Flavio and James J. Heckman (2007) *The Evolution of Inequality, Heterogeneity and Uncertainty in Labor Earnings in the U.S. Economy* NBER Working Paper No. 13526.
- Förster, Michael and Marco Mira d'Ercole (2005) "Income Distribution and Poverty in OECD Countries in the Second Half of the 1990s" OECD Social, Employment and Migration Working Papers, No. 22 DELSA/ELSA/WD/SEM 1.
- Frenette, Marc, David A. Green, Kevin Milligan (2007) "The tale of the tails: Canadian income inequality in the 1980s and 1990s" *Canadian Journal of Economics*, Vol. 40, No. 3. 734–764.
- Gabaix X, and Landier A (2006, 2008) Why Has CEO Pay Increased So Much? NBER Working Paper No. 12365 *Quarterly Journal of Economics*, forthcoming.
- Green, D.A. and J. Kesselman (2006) (ed) Dimensions of Inequality in Canada, UBC Press, Vancouver.
- Heisz, Andrew (2007) *Income Inequality and Redistribution in Canada: 1976 to 2004*. Ottawa, Statistics Canada, Business and Labour Market Analysis Division. ISSN: 1205-9153, ISBN: 978-0-662-46027-5.
- Helliwell, John F. (2002) *Globalization and Well-Being* UBC Press, Vancouver.
- Jenkins, Paul (2006) *What Monetary Policy Can and Cannot Do*
- Remarks by Paul Jenkins, Senior Deputy Governor of the Bank of Canada to the Canadian Institute of Actuaries Ottawa, Ontario. www.bankofcanada.ca/en/speeches/2006/spo6-11.html.
- Jenkins, Stephen. (1991) "The Measurement of Income Inequality." Pp. 3–38 in L. Osberg, ed., *Economic Inequality and Poverty: International Perspectives*. New York: M.E. Sharpe.
- Kohut, A. (2007) *Trends in Political Values and Core Attitudes: 1987–2007* Pew Research Center for The People & The Press <http://www.people-press.org>.
- Lee, Marc (2007) *Eroding Tax Fairness: Tax Incidence in Canada, 1990 to 2005* Canadian Centre for Policy Alternatives, Toronto.
- Levy, Frank and Peter Temin (2007) Inequality and Institutions in 20th Century America Working Paper 13106 National Bureau of Economic Research, <http://www.nber.org/papers/w13106>.
- Lindert, P. H. (2003) Why the Welfare State Looks Like a Free Lunch, Working Paper 9869 <http://www.nber.org/papers/w9869> National Bureau of Economic Research, 1050 Massachusetts Avenue Cambridge, MA 02138.

- Morissette, René and Zhang, Xuelin (2006) "Revisiting wealth inequality", *Perspectives on Labour and Income*, Pages 5 to 16, Statistics Canada—Catalogue no. 75-001-X1E.
- Morissette, René and Anick Johnson (January 2005) "Are Good Jobs Disappearing in Canada?" Analytical Studies Branch research paper series Research Paper No. 239 11F0019M1E—ISSN: 1205-9153 ISBN: 0-662-39124-1.
- Murphy, Brian Paul Roberts and Michael Wolfson (2007) "High-income Canadians" *Perspectives on Labour and Income*—Pages 5 to 17, Statistics Canada Cat No. 75-001-X1E.
- National Council of Welfare (2006) *Welfare Incomes 2005*, Ottawa, Summer 2006, Revised October 2006 http://www.ncwcnbes.net/documents/researchpublications/Research-Projects/WelfareIncomes/2005Report_Summer2006/ReportENG.pdf.
- OECD (2006) *Employment Outlook: Boosting Jobs and Income* Paris 2006.
- Osberg, Lars (1981) *Economic Inequality in Canada*, Butterworth Publishing Co., Toronto, 236 pages.
- (1997) "Economic Growth, Income Distribution and Economic Welfare in Canada 1975–1994," *North American Journal of Economics and Finance*. Vol. 8, No. 2, pp. 153–166.
- (2001) "Inequality"—Pages 7371 to 7377 in N. J. Smelser and Paul B. Baltes (editors), *International Encyclopedia of the Social & Behavioral Sciences*. Pergamon, Oxford.
- (2003) "Long Run Trends in Income Inequality in the USA, UK, Sweden, Germany and Canada—A Birth Cohort View" *Eastern Economic Journal* Vol. 29, No. 1, Pp.121–142.
- (2004) "Room for Differences? Social Policy in a Global Economy" Pages 75–97 in *The Sterling Public Servant: A Global Tribute to Sylvia Ostry*. Edited by Jacob Rytten, McGill-Queen's University Press; also , *Working Papers of the Institute for Social and Economic Research, paper 2007-9*. Colchester: University of Essex.
- Osberg, Lars and Pierre Fortin (1996) *Unnecessary Debts*, James Lorimer Publishers, Toronto.
- Osberg, Lars and Andrew Sharpe (2005) "How should we measure the 'Economic' Aspects of Well-Being?" *The Review of Income and Wealth* Series 51, Number 2, Pp. 311–336.
- (2006) *New Estimates of the Index of Economic Well-Being for Canada* Paper presented at the annual meeting of the Canadian Economics Association, Concordia University, Montreal, Quebec, May 26–28, 2006—available at www.csls.ca.
- Osberg, Lars and Tim Smeeding (2006) "Fair" Inequality? Attitudes to Pay Differentials: The United States in Comparative Perspective" *American Sociological Review*, Vol. 71 (450–473).

- Piketty, Thomas and Emmanuel Saez (2003) "Income Inequality In The United States, 1913–1998," *Quarterly Journal of Economics*, v118 (Feb 1), 1–39.
- Russell, Ellen and Matthieu Dufour (2007) *Rising Profit Shares, Falling Wage Shares* Canadian Centre for Policy Alternatives, Ottawa.
- Saez, Emmanuel and Michael Veal (2003) "The Evolution of High Incomes in Canada, 1920–2000", NBER Working Paper No. 9607. www.nber.org/papers/w9607.
- United Nations, Committee on Economic, Social and Cultural Rights (2006) Consideration of reports submitted by states parties under articles 16 and 17 of the Covenant; *Concluding Observations of the Committee on Economic, Social and Cultural Rights—CANADA*, Geneva, Thirty-sixth session 1—19 May 2006. <http://www.ohchr.org/english/bodies/cescr/docs/E.C.12.CAN.CO.5.pdf>
- Wolff, E.N. and A. Zacharias (2007) "Household Wealth and the Measurement of Economic Well-being in the United States" mimeo.
- Yalnizyan, A. (2007) "The Rich and the Rest of Us" Canadian Centre for Policy Alternatives, Ottawa, March 2007.