



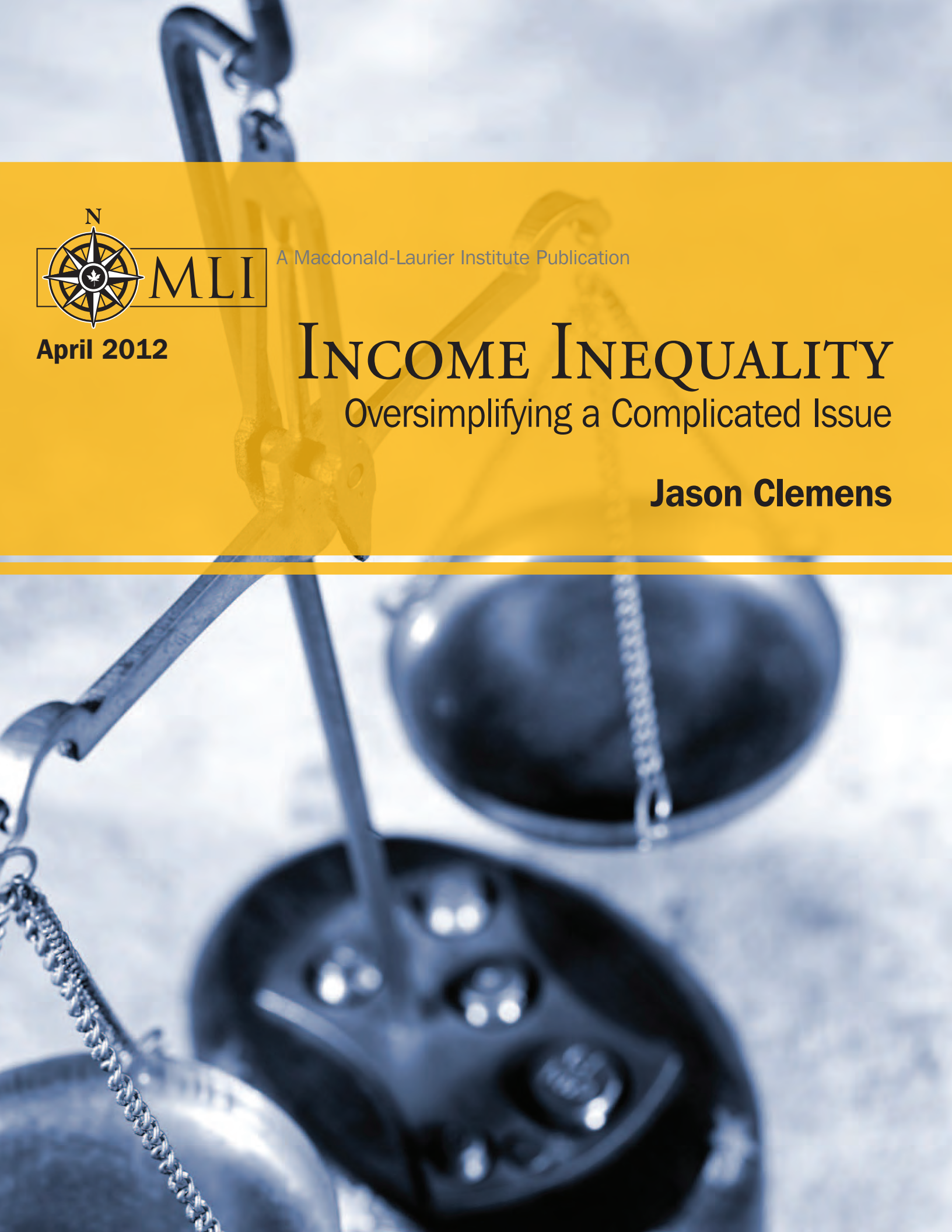
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INCOME INEQUALITY

Oversimplifying a Complicated Issue

Jason Clemens





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EXECUTIVE SUMMARY

As the great writer H.L. Mencken explained, “There is always an easy solution to every human problem that is neat, plausible, and wrong.” There may be no greater contemporary illustration than the discussions and recommended solutions for inequality. This paper argues that we first need to understand the complexity of inequality and the facts regarding it before we leap to solutions.

This paper discusses nine complicating factors that need to be considered when analyzing inequality. Each section is briefly summarized below. Please note that some sections are longer than others due to their complexity and/or importance in understanding inequality.

1) Pre-Tax Versus After-Tax Income

One dimension of inequality that is sometimes ignored is the selection of pre-tax versus after-tax (including transfers) measures of income. Pre-tax measures of income make little sense given that so many mechanisms (tax credits and direct transfers, for instance) exist to both lighten the tax burden and in many cases transfer income to lower-income households.

Examining after-tax income including transfers instead of pre-tax income results in a lower rate of inequality. For example, in 2008, the most recent year for which data is available, pre-tax income indicated inequality between the bottom and top ten percent as 18.0. In other words, the top 10 percent earned 18.0 times what the bottom ten percent earned. This ratio drops to 13.8, a reduction of 30 percent when after-tax income is used rather than pre-tax.

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2) Limitations with Inequality Data

Analyses of income inequality rely on official income statistics as well as surveys. The analysis of inequality is limited by the quality of the income statistics and surveys themselves. What is almost always overlooked when discussing the conclusions (and recommendations) of studies of inequality is the influence of under-reported and unreported income.

Under-reporting Income

Under-reporting of income relates to survey data wherein there is a systematic failure for respondents to fully report certain types of income. One study reports that roughly 20 percent of employment insurance and 40 percent of social assistance income is under-reported. Similarly, between 12 and 24 percent of self-employment income is under-reported.

Unreported Income

A related issue to the under-reporting of income is unreported income. This is distinct from not disclosing the full value or amount of income from certain sources since these incomes go entirely unreported. Unreported income includes both legal and illegal activities. The 2007 estimate for the size of the underground economy in Canada was 15.7 percent of GDP.

International Considerations

The ranges of the size of underground economies in different countries presents a real obstacle for inter-country comparisons, particularly between countries in different stages of economic development. These comparisons contribute to, if not constitute, studies of income inequality.

The range of estimates for the size of the underground economies in developed countries range from 8.5 percent of GDP in Switzerland, which maintains the smallest estimated underground economy, to 30.0 percent of GDP in Mexico, which possessed the largest underground economy. In developing countries, the range was from 12.8 percent in China to 66.6 percent in Bolivia. The range of estimates for the underground economy for transitional countries, largely former Soviet Bloc countries, was 18.1 percent in the Slovak Republic to 65.8 percent in Georgia.

The key lesson for the purposes of understanding international comparisons of inequality, is the enormous range of the size of the underground economy and how it can materially influence our estimates and understanding of inequality. Indeed, the effects of under-reported and unreported income have important implications for both domestic and international comparisons of income and thus our ability to accurately calculate income inequality.

3) Understanding Poverty Versus Income Inequality

The difference between poverty and income equality may seem self-evident; however, groups advocating for solutions to income inequality often either conflate the two concepts or treat them as synonymous. Traditionally, poverty refers to a level of income at which basic necessities, such as food, clothing, and shelter are unattainable or difficult to secure. Income inequality is a distinct concept from poverty. It refers simply to the ratio of one group's income compared to another group's income.

These two approaches yield very different results. In 2006 measures of absolute poverty, poverty thresholds were \$10,314 for a single individual and \$22,852 for a family of four. Low income cut off (LICO), a partial measure of relative poverty, is an income threshold below which households spend 20 percentage points more on necessities such as food, clothing, and shelter than average families. The 2006 LICO for an individual was \$17,570 and \$33,221 for a family of four. Put differently, the relative measure of poverty was almost 70 percent higher for individuals than the absolute measure of poverty.

The enormous range of the size of the underground economy can materially influence our estimates and understanding of inequality.

4) Income Versus Consumption Stats

Another complicating factor in understanding inequality is the question of whether or not income is the appropriate or best indicator of inequality. If the concern is the ability of households to secure basic necessities and other amenities, then measures of consumption are superior to measures of income.

Two important considerations emerge when income inequality is contrasted with consumption inequality. First, consumption inequality is always lower compared to the level of income inequality. Indeed, in 2008, the most recent year of data, consumption inequality was a little over 30 percent less than the inequality calculated using after-tax income.

Second, the observed increase in income inequality is greater than the increase observed in consumption. Specifically, income inequality measured by deciles increases from 11.2 in 1969 to 13.8 in 2008, an increase of 23.2 percent. The increase in inequality measured by consumption, however, only increases 13.1 percent from 8.4 in 1969 to 9.5 in 2008.

5) Changing Households

Another complicating factor to consider is the shifting nature of households, which to a certain extent relates to the causes of changes in inequality. Measures of income and thus income inequality are based on households rather than individuals. One of the main factors to consider in the changing nature of households is the increased rate of single-parent and single-income households. This simple change in the composition of households has the potential to materially affect measuring differences between households.

Consumption inequality is always lower compared to the level of income inequality.

An adjustment to measuring adult equivalences, a better measure of similar households over time, reduces inequality for measures of income and consumption by roughly 30 percent. In other words, the measures of inequality are reduced by almost one-third by simply accounting for the changing nature of households over time.

6) Source of Inequality

The source of inequality is often ignored by those who argue inequality is of no concern. In simple terms there are three broad ways in which to acquire income and wealth. In most industrialized countries, people achieve success and wealth by consistently providing a good or service demanded by customers at a time and price they're willing to pay. Over time, this forces existing companies to constantly innovate and reinvest themselves in order to compete with start-ups and other competitors.

There are less productive ways people can achieve success and wealth, which are dependent on government regulations and intervention in the marketplace. One relates to legal protection that people can secure for themselves or their companies. These can take the form of protective tariffs for a company to protect them from foreign competitors or monopoly rights to protect them from domestic competitors. It can also take the form of exclusive rights to natural resources. While legal, these activities are distinct from the entrepreneurial efforts discussed above.

A final method by which to secure affluence and wealth is through theft facilitated by the state government. Unfortunately in many developing countries, individuals have been able to misallocate large sums of money and resources from the population with little or no repercussions. When inequality is a result of either the second or third forms of wealth accumulation, namely securing special favours from the government or outright theft, inequality should be of concern.

7) Inequality and Mobility

An often implied – but almost never discussed – dimension of inequality is that people are stationary over time. In other words, it is often inferred that those in low income or experiencing poverty today are also those in low income or poverty tomorrow.

Statistics Canada maintains and publishes results from the Survey of Labour and Income Dynamics (SLID), which regularly follows specific individuals over time.

Twenty-five percent of those who started in the lowest quintile in 2008 moved to a higher quintile by 2009. This is slightly less than the comparative number for 1996-97 (27 percent). Upward mobility, meaning individuals who moved up at least one quintile over the course of the year ranged from 19 percent for those in the fourth quintile (meaning they moved to the fifth and highest quintile) to 24 percent for those in the middle quintile. Slightly higher levels of upward mobility were observed for three of the four quintiles compared to 1996-97. (One cannot move upward from the highest quintile.)

Over an extended length of time, the highest level of upward mobility is observed for those in the lowest quintile.

There was also downward movement, the reverse dynamic of the upward mobility. For example, 24 percent of those individuals who started in the highest quintile (2008) moved down into a lower quintile in 2009. The range of downward movement was 14 percent for those in the second quintile to 24 percent for those in the highest quintile. The level of downward mobility was lower for those in the second quintile, the same for those in the third and fourth quintiles, and slightly higher for those in the highest quintile compared to 1996-97.

Over an extended length of time, the highest level of upward mobility is observed for those in the lowest quintile. Forty-three percent of individuals who began the period in the lowest quintile moved into a higher quintile by the end of the five-year period. This is slightly higher than the rate observed in 1993-97 (41 percent). Indeed, a consistent pattern is observed for both five-year periods wherein the highest level of mobility is observed at the lower end of the income spectrum while lower levels of upward mobility are observed at the higher end of the income spectrum. The highest rates of downward mobility for both periods are observed in the highest quintile. Specifically, forty percent of those individuals who began the period (2005) in the highest quintile moved to a lower quintile by the end of the period. The comparable figure for 1993-97 was 39 percent.

8) Exposure to and Escape from Low Income in Canada

While the general issue of mobility is important, given the focus on inequality it is worth understanding mobility for those at the bottom of the income spectrum as well as exposure to low income more broadly.

Using the same SLID data employed in the previous section, which follows specific people over time, we are able to observe exposure to low income (as opposed to poverty).

The percentage of people in low income declined from 12.5 percent in 2000 to 9.6 percent in 2009, which is up slightly from its low point in 2007 (9.2 percent). The rate of seniors in low income (5.2 percent) is much lower than for the working-age population (10.5 percent), although both rates declined over this period. Finally, and quite critically, the rate of people in low income for those headed by a female lone parent was just over twice the rate of the general population (21.5 percent versus 9.6 percent, which is down from 40.1 percent in 2000). However, the critical insight is to recognize that family structure seems quite strongly related to the rate of low income experienced.

Not surprisingly, education influences exposure to low income; 6.2 percent of individuals with less than a high school diploma experience low income consistently for the six years covered by the study. This compares to 4.0 percent for those with high school education, 1.7 percent for those with some post-secondary education, and zero for those with university.

Perhaps most critically for our interests is the persistence of exposure to low income. Using SLID data, Statistics Canada tracked exposure to low income for four separate six-year periods beginning in the early 1990s. The results are quite important in terms of understanding the prominence of low income in Canada.

Between 74.6 percent and 80.0 of individuals, depending on the time period, had no experience with low income in any year of the six years. What could be categorized as a permanent or persistent experience with low income (people experiencing low income for all six years) affected between 2.1 and 3.6 percent of the population.

A final note is to observe that roughly 8 percent of the population was exposed to low income for one year out of six years in all four time periods covered. The interaction of these three data conclusions regarding exposure to low income coupled with the panel data discussed previously leaves a strong impression of a fairly mobile society wherein those exposed to and experiencing low income do so for short periods of time.

9) Income and Taxes: Balanced?

The final complicating factor discussed relates almost solely to the solutions advocated for inequality. A common refrain, particularly with the rise of the Occupy Wall Street movement, has been that the top have not carried their fair share of the tax burden.

High-income earners already pay a disproportionately large share of taxes.

What readers might find startling is that in both the Canada and the United States, top earners contribute more than their fair share. The top 20 percent of earners in Canada received 46.8 percent of total income in 2011 but paid 54.4 percent of the total tax bill. Put differently, only the top 20 percent of earners in Canada paid a tax burden in excess of their proportional income. All other earners paid less in taxes (total) than their proportional income. While this data shows strong progressivity in the Canadian tax system, it cannot answer the subjective question of whether it is “enough.”

What might surprise Canadian readers even more is the burden placed on top earners is more pronounced in the United States than in Canada. The top 20 percent in the United States earned 54.6 percent of income in 2011 but carried 69.7 percent of the total federal tax burden. The top 1 percent earned 16.8 percent of income and paid 25.6 percent of the total tax burden. As in Canada, only the top 20 percent paid proportionately more in taxes compared to their relative income.

Two insights emerge from the analysis above. First, high-income earners in both Canada and the United States already pay a disproportionately large share of taxes compared to their income. Second, and perhaps more interesting, is that the call for progressivity by many reform-minded people in both countries is misleading. An honest argument is that redistribution already exists but advocates prefer even more redistribution.

Conclusion

The aim of this paper has been to explain and document many complicating factors that must be incorporated into our understanding and analysis of inequality. Ignoring important factors such as serious challenges in measuring income, the efficacy of consumption rather than income measures, the role of the underground economy, the source of inequality, the effects of corruption and crony capitalism, and the mobile nature of our societies all result in oversimplifying a complicated social phenomenon. In doing so, we significantly risk prescribing solutions that either don't solve the underlying problem or could very well worsen the situation.

SOMMAIRE

Comme l'a expliqué le grand écrivain H. L. Mencken : « Il y a toujours une solution facile à chaque problème humain qui est à la fois ingénieuse, plausible et mauvaise. » Il n'y a sans doute pas de meilleure illustration de cet aphorisme que les débats et les solutions qui sont proposées pour résoudre le problème de l'inégalité. La présente étude soutient qu'il faut d'abord comprendre la complexité du phénomène de l'inégalité et les faits qui le concernent avant de pouvoir envisager des solutions.

L'étude se penche sur neuf facteurs qui rendent la situation plus compliquée et qui doivent être pris en considération lorsqu'on analyse les inégalités. Chacune des sections est brièvement résumée ci-dessous. Notez que certaines sections sont plus longues que d'autres à cause de leur complexité et/ou leur importance dans la compréhension de l'inégalité.

1) Le revenu avant impôt versus le revenu après impôt

L'une des dimensions parfois ignorée du phénomène de l'inégalité est la sélection de la mesure du revenu, c'est-à-dire avant ou après impôt (incluant les transferts). Une mesure du revenu avant impôt n'a pas vraiment de pertinence parce qu'il existe de nombreux mécanismes (les crédits d'impôt et les transferts directs par exemple) qui permettent de réduire le fardeau fiscal et, dans bien des cas, de transférer des sommes d'argent aux ménages à faible revenu.

On constate un plus bas niveau d'inégalité lorsqu'on examine le revenu après impôt, incluant les transferts, que lorsqu'on examine le revenu avant impôt. Par exemple, en 2008, l'année la plus récente pour laquelle les données sont disponibles, la mesure du revenu avant impôt indiquait un ratio d'inégalité de 18,0 entre les 10 % des revenus inférieurs et les 10 % des revenus supérieurs. En d'autres termes, les 10 % des personnes les plus riches gagnaient un revenu 18,0 fois plus élevés que les 10 % les moins riches. Ce ratio diminue à 13,8, soit une réduction de 30 %, lorsqu'on utilise plutôt la mesure du revenu après impôt.

2) Les limites des données sur l'inégalité

Les études sur l'inégalité des revenus dépendent des statistiques officielles sur les revenus ainsi que d'enquêtes spécifiques. L'analyse du phénomène de l'inégalité est limitée par la qualité des statistiques sur les revenus et des enquêtes elles-mêmes. On oublie presque toujours de tenir compte de l'influence des revenus non déclarés ou partiellement déclarés lorsqu'on discute des conclusions (et des recommandations) des études sur l'inégalité.

Les revenus partiellement déclarés

Les revenus partiellement déclarés influencent les données d'enquête lorsque les répondants omettent systématiquement de déclarer certains types de revenu. Selon une étude, environ 20 % des revenus d'assurance emploi et 40 % des revenus d'aide sociale sont déclarés en partie seulement. De même, entre 12 et 24 % des revenus de travail autonome sont partiellement déclarés.

Les revenus non déclarés

Un problème connexe est l'existence de revenus non déclarés. Ce problème est distinct des revenus partiellement déclarés en provenance de certaines sources dans le sens où ces revenus ne sont pas du tout déclarés. Les revenus non déclarés touchent autant des activités légales qu'illégales. On estimait à 15,7 % du PIB la taille de l'économie souterraine au Canada en 2007.

Les considérations internationales

L'étendue de l'économie souterraine au sein de différents pays présente un obstacle réel lorsqu'on les compare entre eux, en particulier dans le cas de pays à différents stades de développement économique. Ces comparaisons permettent de contribuer à l'étude de l'inégalité des revenus mais ne sont pas vraiment des études en soi.

Les estimations de la taille de l'économie souterraine dans les pays développés vont de 8,5 % du PIB en Suisse, le pays où elle est la plus restreinte, à 30,0 % du PIB au Mexique, où elle est la plus étendue. Dans les pays en

On constate un plus bas niveau d'inégalité lorsqu'on examine le revenu après impôt.

développement, elles vont de 12,8 % en Chine à 66,6 % en Bolivie. Dans les économies en transition, qui sont en grande partie des pays de l'ex-bloc soviétique, les estimations vont de 18,1 % en République slovaque à 65,8 % en Géorgie.

La principale leçon à retenir pour les fins d'une bonne compréhension des comparaisons internationales de l'inégalité est que la taille de l'économie souterraine diffère énormément d'un pays à l'autre et que ceci influence grandement nos estimations et notre compréhension de l'inégalité. En effet, la présence de revenus partiellement déclarés et non déclarés a des implications importantes à la fois pour les comparaisons domestiques et internationales du revenu, et donc des conséquences sur notre capacité de calculer correctement l'inégalité du revenu.

3) Distinguer la pauvreté et l'inégalité de revenu

La différence entre la pauvreté et l'inégalité de revenu peut sembler évidente; toutefois, les groupes qui plaident pour des solutions à l'inégalité de revenu confondent souvent les deux concepts ou les traitent comme des synonymes. Traditionnellement, la pauvreté réfère à un niveau de revenu qui ne permet pas, ou permet difficilement, d'obtenir des biens de première nécessité comme la nourriture, les vêtements et le logement. L'inégalité de revenu est un concept distinct de celui de pauvreté. Il réfère simplement au ratio du revenu d'un groupe donné sur celui d'un autre groupe.

Ces deux approches donnent des résultats très différents. Si l'on prend des mesures de pauvreté absolue datant de 2006, les seuils de pauvreté se situaient à 10 314 \$ pour un individu vivant seul et à 22 852 \$ pour une famille de quatre personnes. Le seuil de faible revenu (SFR), une mesure partielle de pauvreté relative, est un seuil de revenu

au-dessous duquel un ménage dépense l'équivalent de 20 points de pourcentage de plus qu'une famille moyenne pour des biens de première nécessité comme la nourriture, les vêtements et le logement. Le seuil de pauvreté relative pour un individu vivant seul en 2006 se situait à 17 570 \$ et pour une famille de quatre personnes à 33 221 \$. En d'autres termes, la mesure de pauvreté relative pour les individus était presque 70 % plus élevée que la mesure de pauvreté absolue.

4) Le revenu versus les statistiques sur la consommation

Un autre facteur qui complique la compréhension du phénomène de l'inégalité est la question de savoir si le revenu est l'indicateur le plus approprié pour évaluer l'inégalité. Si notre préoccupation touche la capacité des ménages à obtenir des biens de première nécessité et d'autres biens et services permettant de vivre confortablement, il faut alors conclure que les données qui mesurent la consommation sont supérieures à celles qui mesurent le revenu.

On doit prendre deux importants facteurs en considération lorsqu'on compare l'inégalité de revenu avec l'inégalité de consommation. Premièrement, l'inégalité de consommation est toujours plus basse en comparaison de l'inégalité de revenu. Ainsi, en 2008, l'année pour laquelle nous disposons des données les plus récentes, l'inégalité de consommation était un peu plus de 30 % inférieure à l'inégalité calculée sur la base du revenu après impôt.

La taille de l'économie souterraine diffère énormément d'un pays à l'autre et ceci influence grandement nos estimations et notre compréhension de l'inégalité.

Deuxièmement, l'augmentation observée de l'inégalité de revenu est plus grande que l'augmentation observée de l'inégalité de consommation. Plus spécifiquement, l'inégalité de revenu mesurée par décile est passée de 11,2 en 1969 à 13,8 en 2008, une augmentation de 23,2 %. L'augmentation de l'inégalité telle que mesurée par la consommation n'a toutefois été que de 13,1 %, soit de 8,4 en 1969 à 9,5 en 2008.

5) L'évolution des ménages

Un autre facteur à considérer qui rend la situation plus complexe est la nature changeante des ménages, qui est reliée dans une certaine mesure aux causes de changement sur le plan de l'inégalité. Les mesures de revenu, et conséquemment les mesures de l'inégalité de revenu, sont fondées sur les ménages plutôt que sur les individus. L'un des principaux facteurs à considérer sur le plan de la nature changeante des ménages est le taux de plus en plus élevé de familles monoparentales et de ménages à un seul revenu. Ce simple changement dans la composition des ménages peut influencer considérablement la mesure des différences entre les ménages.

Une mesure ajustée par équivalent-adulte, qui donne une meilleure idée de l'évolution de ménages similaires à travers le temps, réduit l'inégalité selon les mesures de revenu et de consommation d'environ 30 %. En d'autres termes, les mesures d'inégalité sont réduites de presque le tiers simplement en tenant compte de l'évolution des ménages à travers le temps.

6) L'origine de l'inégalité

L'origine de l'inégalité est souvent ignorée par ceux qui soutiennent que l'inégalité n'est pas un phénomène préoccupant. De façon simplifiée, il existe trois principales façons d'acquérir un revenu et de la richesse. Dans la plupart des pays industrialisés, les gens parviennent au succès et à la prospérité en fournissant systématiquement un bien ou un service demandé par les consommateurs au moment opportun et à un prix qu'ils sont prêts à payer. Avec

le passage du temps, ceci force les entreprises existantes à constamment innover et à réinvestir dans leurs processus de production pour concurrencer les nouvelles entreprises et d'autres concurrents.

Sur une longue durée, le taux le plus élevé de mobilité ascendante est observé chez ceux qui se trouvent dans le plus bas quintile.

Il existe des façons moins productives par lesquelles on peut parvenir au succès et à la prospérité, qui sont dépendantes de la réglementation et de l'intervention de l'État dans les marchés. L'une de ces façons a trait à la protection juridique que des personnes peuvent obtenir pour elles-mêmes ou leurs entreprises. Cela peut prendre la forme d'un tarif douanier pour protéger des entreprises de concurrents étrangers ou de droits monopolistiques pour les protéger de concurrents domestiques. Cela peut également prendre la forme de droits d'accès exclusifs à des

ressources naturelles. Bien qu'elles soient légales, ces activités sont distinctes des efforts entrepreneuriaux discutés plus haut.

Une dernière méthode par laquelle on peut parvenir à l'abondance et à la richesse est le vol facilité par le gouvernement. Malheureusement, dans beaucoup de pays en développement, des individus ont pu s'approprier de larges sommes d'argent et de grandes quantités de ressources aux dépens de la population sans que cela entraîne de répercussions notables. Lorsque l'inégalité est le résultat de la seconde ou de la troisième forme d'accumulation de richesse, c'est-à-dire l'obtention de faveurs spéciales de la part du gouvernement ou carrément le vol, l'inégalité devient alors un phénomène préoccupant.

7) L'inégalité et la mobilité

Une position souvent implicite – mais presque jamais discutée – de l'inégalité est que les personnes conservent le même statut à travers le temps. En d'autres termes, on présume que les personnes à faible revenu ou qui vivent dans la pauvreté aujourd'hui sont les mêmes qui auront un revenu faible et vivront dans la pauvreté demain. Statistique Canada met à jour et publie les résultats de l'Enquête sur la dynamique du travail et du revenu (EDTR), qui suit de façon régulière un certain nombre d'individus à travers le temps.

Vingt-cinq pour cent de ceux qui se trouvaient dans le quintile inférieur en 2008 avait migré vers un quintile plus élevé en 2009. Cette proportion est légèrement inférieure à ce qui a été constaté en 1996-1997 (27 %). La mobilité ascendante, c'est-à-dire la proportion d'individus qui se déplacent d'au moins un quintile vers le haut sur une période d'un an, allait de 19 % pour ceux qui étaient dans le quatrième quintile (ce qui signifie qu'ils se sont déplacés vers le cinquième quintile, le plus élevé) à 24 % pour ceux qui étaient dans le quintile intermédiaire. Des taux de mobilité ascendante un peu plus élevés ont été observés pour trois des quatre quintiles en comparaison des données de 1996-1997. (Il est impossible de passer à un quintile supérieur lorsqu'on se trouve dans le quintile le plus élevé.)

On a également observé un mouvement descendant, qui est le mouvement contraire de la mobilité ascendante. Par exemple, 24 % des individus qui se trouvaient dans le quintile supérieur en 2008 avaient migré vers un quintile inférieur en 2009. Le mouvement descendant allait de 14 % pour ceux qui se trouvaient dans le second quintile à 24 % pour ceux qui se trouvaient dans le quintile supérieur. En comparaison des données de 1996-1997, le taux de mobilité descendante était plus faible pour ceux qui se trouvaient dans le second quintile, était similaire pour ceux qui se trouvaient dans les troisième et quatrième quintiles, et était légèrement plus élevé pour ceux qui se trouvaient dans le quintile supérieur.

Sur une longue durée, le taux le plus élevé de mobilité ascendante est observé chez ceux qui se trouvent dans le plus bas quintile. Quarante-trois pour cent des individus qui se trouvent dans le plus bas quintile au début de la période de cinq ans migrent vers un quintile plus élevé à la fin de la période. Il s'agit d'un taux légèrement plus élevé que celui observé en 1993-1997 (41 %). On observe en effet une tendance constante dans les deux périodes de cinq ans : les plus hauts taux de mobilité se manifestent aux échelons inférieurs de l'échelle de revenu alors que des taux plus bas de mobilité ascendante se manifestent aux échelons supérieurs de l'échelle de revenu. Les plus hauts taux de mobilité descendante durant les deux périodes ont été observés dans le quintile le plus élevé. Plus spécifiquement, 40 % des individus qui se trouvaient dans le plus haut quintile au début de la période en 2005 avaient migré vers un quintile inférieur à la fin de la période. Le chiffre comparable pour la période 1993-1997 était de 39 %.

8) L'exposition au faible revenu et la mobilité ascendante au Canada

Bien que la question de la mobilité en général soit importante, compte tenu de l'accent mis sur l'inégalité, il est utile de chercher à comprendre plus spécifiquement la mobilité des personnes qui se trouvent au bas de l'échelle de revenu ainsi que l'exposition au faible revenu de façon plus large.

En reprenant les mêmes données de l'Enquête sur la dynamique du travail et du revenu – qui suit les individus à travers le temps – que nous avons utilisées dans la section précédente, il est possible d'observer l'exposition au faible revenu (par opposition à la pauvreté).

Le pourcentage de personnes à faible revenu a diminué de 12,5 % en 2000 à 9,6 % en 2009, ce qui est légèrement plus élevé que le point le plus bas atteint en 2007 (9,2 %). La proportion de personnes âgées à faible revenu (5,2 %) est beaucoup plus basse que pour la population en âge de travailler (10,5 %), même si les deux taux ont diminué durant cette période. Enfin, et ceci est une donnée critique, la proportion de personnes à faible revenu vivant dans des ménages dirigés par une mère monoparentale était un peu plus de deux fois supérieure à celle qui prévaut au sein de la population en général (21,5 % versus 9,6 %, ce qui est une diminution par rapport au 40,1 % observé en 2000). On doit absolument noter ici le fait que la structure familiale semble très fortement corrélée avec le taux de faible revenu.

On constate un plus bas niveau d'inégalité lorsqu'on examine le revenu après impôt.

On ne sera pas surpris d'apprendre que le niveau d'éducation influence l'exposition au faible revenu : 6,2 % des individus n'ayant pas de diplôme d'éducation secondaire vivent systématiquement dans une situation de faible revenu durant les six années couvertes par l'étude. Ce chiffre se compare à 4,0 % pour ceux qui ont un diplôme d'éducation secondaire, 1,7 % pour ceux qui ont un peu d'éducation postsecondaire, et zéro pour ceux qui ont un diplôme universitaire.

Ce qui est peut-être encore plus déterminant est la persistance de l'exposition au faible revenu. À l'aide des données de l'Enquête sur la dynamique du travail et du revenu, Statistique Canada a suivi l'exposition au faible revenu pendant quatre périodes distinctes de six ans à partir du début des années 1990. Les résultats sont très importants pour comprendre l'ampleur du phénomène de faible revenu au Canada.

Entre 74,6 et 80,0 % des individus, selon la période étudiée, n'ont eu aucune expérience de faible revenu durant chacune des six années. Ce que l'on pourrait qualifier d'expérience permanente ou persistante du faible revenu (des personnes qui se retrouvent avec un revenu faible durant les six années) n'a touché qu'entre 2,1 et 3,6 % de la population.

On peut observer en terminant qu'environ 8 % de la population a été exposée au faible revenu durant une année sur six pendant les quatre périodes étudiées. L'interaction entre les conclusions tirées de ces trois données concernant l'exposition au faible revenu, auxquelles on peut ajouter les données de panel discutées précédemment, trace un portrait clair d'une société très mobile où ceux qui sont exposés au faible revenu en font l'expérience pour de courtes périodes de temps.

Tout d'abord, les salariés à haut revenu autant au Canada qu'aux États-Unis paient déjà une part disproportionnée des impôts par rapport à leurs revenus.

9) Un équilibre entre le revenu et les taxes?

Le dernier facteur qui complique la compréhension du phénomène de l'inégalité a presque uniquement trait aux solutions mise de l'avant pour s'y attaquer. Le refrain habituel, en particulier depuis l'entrée en scène du mouvement « Occupons Wall Street », est que les plus riches ne contribuent pas une part équitable du fardeau fiscal.

Les lecteurs seront peut-être surpris d'apprendre qu'autant au Canada qu'aux États-Unis, ceux qui obtiennent les revenus les plus élevés contribuent bien plus que leur part équitable. Les 20 % des salariés qui gagnent le plus au Canada ont reçu 46,8 % du revenu total en 2011 mais ont payé 54,4 % du montant total des impôts. En d'autres termes, les 20 % des personnes les mieux payées ont subi un fardeau fiscal

proportionnellement plus élevé que leurs revenus. Tous les autres salariés ont payé proportionnellement moins d'impôt (au total) que leurs revenus. Même si ces données illustrent la forte progressivité du système d'imposition canadien, elles ne permettent pas de répondre à la question de savoir si c'est « suffisant ».

Ce qui surprendra les lecteurs canadiens encore davantage est que le fardeau que doivent subir les salariés qui gagnent le plus aux États-Unis est encore plus lourd qu'au Canada. Les 20 % des plus hauts salariés aux États-Unis ont reçu 54,6 % des revenus en 2011 mais ont dû payer 69,7 % des impôts fédéraux totaux. Ceux qui se trouvent dans le 1 % des plus hauts salariés ont quant à eux reçu 16,8 % des revenus et ont payé 25,6 % du fardeau fiscal global. Tout comme au Canada, seul le groupe des 20 % les mieux payés ont proportionnellement payé davantage d'impôt qu'ils n'ont reçu de revenus.

Deux constatations émergent de l'analyse précédente. Tout d'abord, les salariés à haut revenu autant au Canada qu'aux États-Unis paient déjà une part disproportionnée des impôts par rapport à leurs revenus. Deuxièmement, et cela a sans doute plus d'intérêt, les appels à une plus grande progressivité du système fiscal par les partisans d'une réforme dans les deux pays font fausse route. On peut honnêtement soutenir qu'il existe déjà une redistribution de la richesse, mais ceux-ci souhaitent encore plus de redistribution.

Conclusion

L'objectif de cette étude est d'expliquer et de documenter les nombreux facteurs qui rendent le phénomène de l'inégalité plus compliquée et qui doivent être intégrés à notre compréhension et notre analyse. En ignorant des facteurs importants tels que les défis considérables que pose la mesure du revenu, l'efficacité supérieure des mesures de consommation par rapport aux mesures de revenu, le rôle de l'économie souterraine, l'origine de l'inégalité, les effets de la corruption et du capitalisme de connivence, de même que la mobilité inhérente à nos sociétés, on simplifie indûment un phénomène social complexe. Et en faisant cela, on risque fortement de proposer des solutions qui n'auront aucun effet sur les causes sous-jacentes et qui pourraient très bien empirer la situation.

INTRODUCTION

There is always an easy solution to every human problem that is neat, plausible, and wrong.

—H.L. Mencken

The Occupy Wall Street (OWS) movement coupled with increasing unease over high unemployment and slow economic growth has placed the perennial issue of income inequality front and centre once again.¹ These concerns were further stoked by a major report² by the Organization for Economic Cooperation and Development (OECD) in late 2011.³

Measurements should focus on after-tax income including government transfers.

There are certainly reasons to be concerned about the distribution of income across society.⁴ However, all too often this issue is oversimplified with responsive solutions demanded and sometimes implemented, which often worsen rather than improve the observed problems.⁵ As the always insightful author H.L. Mencken warns in the quote above, there is always a simple solution, which more often than not is incorrect.

This commentary is dedicated to summarizing many of the complicating factors that need to be considered when discussing and debating income inequality and the potential solutions available.⁶ Some of these factors are easily understood and thus presented concisely. Other factors, such as mobility, require a more developed presentation in order to fully understand their implications for understanding inequality. Where applicable, a discussion of how these complexities manifest themselves in an international context is also presented. The discussion of international considerations is important given that so much of the analysis on inequality is presented within an international context.

Although not exhaustive,⁷ the study has included discussions of the following factors connected with understanding inequality in Canada and internationally.⁸

- 1) Pre-Tax Versus After-Tax Income
- 2) Limitations with Inequality Data
- 3) Understanding Poverty Versus Income Inequality
- 4) Income Versus Consumption Stats
- 5) Changing Households
- 6) Source of Inequality
- 7) Inequality and Mobility
- 8) Exposure to and Escape from Low Income in Canada
- 9) Income and Taxes: Balanced?



1) PRE-TAX VERSUS AFTER-TAX INCOME

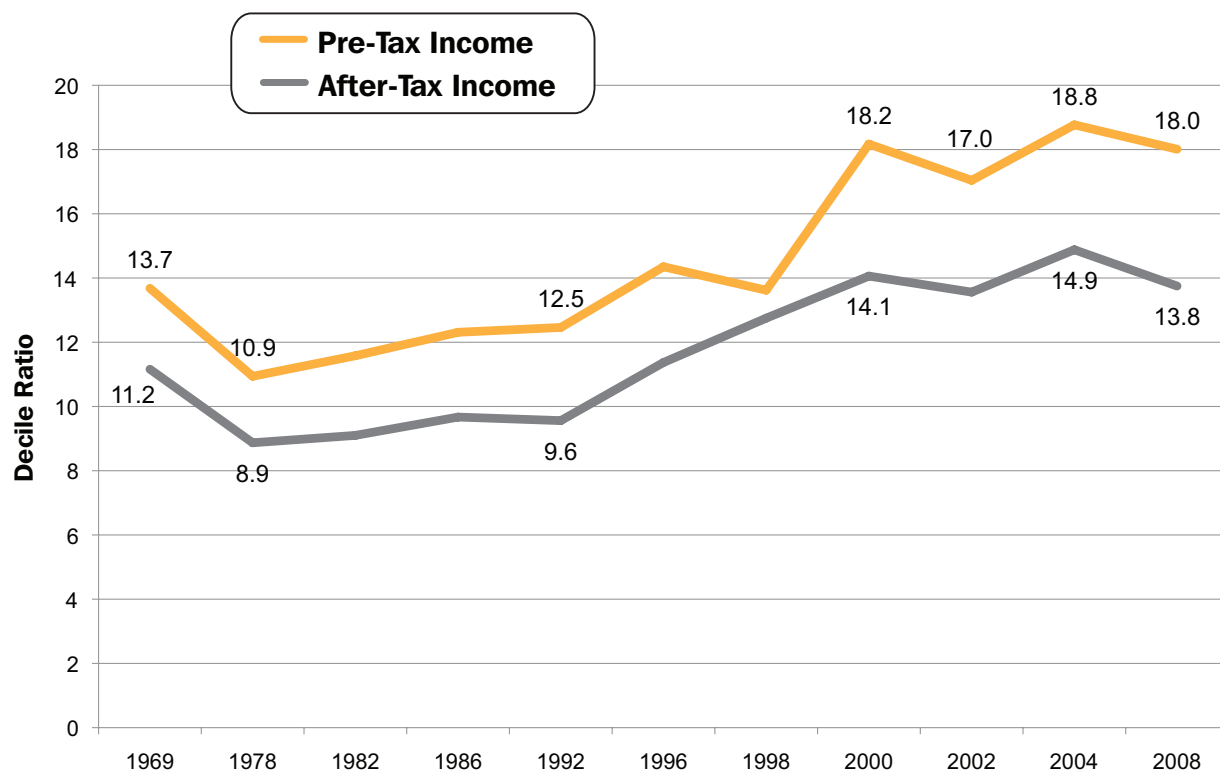
One simple dimension of inequality statistics that is sometimes ignored is the selection of pre-tax versus after-tax measures of income, which includes government transfers. Pre-tax measures of income make little sense given that so many mechanisms exist within the tax system to both lighten the tax burden and in many cases transfer income to lower-income households.

The Working Income Tax Benefit (WITB)⁹, for example, reduces the tax burden for workers by providing a tax credit against taxes owed. However, it also acts as a direct transfer of income to lower-income households. The Working Income Tax Benefit transfers income to some households through its refundability. For households where the value of the tax credit exceeds the tax liability (taxes owed), a direct cash payment to the household is made for the difference. Thus, for lower-income households this type of tax credit becomes a direct cash transfer. In other cases, such as the Goods and Services Tax (GST) credit,¹⁰ there is a direct quarterly payment to eligible households.

These tax credits as well as other mechanisms serve to transfer income to lower-income households. Thus, to accurately ascertain inequality in income, measurements should focus on after-tax income including government transfers rather than pre-tax income in order to include the effects of these mechanisms.

Figure 1 illustrates a measure of the income of the top 10 percent (decile) compared to the lowest 10 percent as a ratio for both pre-tax and after-tax income (including transfers).

FIGURE 1 Decile ratio of income inequality



Sources: Statistics Canada; Family Expenditure in Canada and Survey of Household Spending microdata files. Various years.

Note: Professor Chris Sarlo was contracted to update his analysis (2009) comparing inequality measures based on income and consumption.

The implication of comparing the two measures is that after-tax income results in a lower rate of inequality. For example, in 2008, the most recent year for which data is available, pre-tax income indicated inequality between the bottom and top ten percent as 18.0. In other words, the top 10 percent earned 18.0 times what the bottom ten percent earned. This ratio drops to 13.8, a reduction of 30 percent when after-tax income is used rather than pre-tax. This should not be surprising given the nature of the tax transfers discussed, which can both reduce the tax burden for lower-income families and more importantly act as a direct cash transfer.¹¹

The implication of this insight is that any measure of income inequality that relies on pre-tax income is more than likely over-estimating income inequality by ignoring the effects of these income transfer mechanisms.

2) LIMITATIONS WITH INEQUALITY DATA

Analyses of income inequality rely on official income statistics as well as surveys. Thus, the conclusions of such analyses are limited by the quality of the income statistics and surveys themselves. What is almost always overlooked when discussing the conclusions (and recommendations) of studies of inequality is the influence of under-reported and unreported income.

Under-reporting Income

While related, these two problems in inequality analyses are distinct. Under-reporting of income relates to survey data wherein there is a systematic failure for respondents to fully report certain types of income. For example, in a review of low-income measures, Statistics Canada commissioned a series of papers to examine problems. A paper by Wolfson and Evans concluded that there was considerable under-reporting of certain types of

income.¹² The report singled out the under-reporting of employment insurance income (roughly 20 percent) and social assistance income (40 percent). These two sources of income are particularly important for studies of income inequality since they are concentrated at lower levels of earnings. Thus, to some extent, the existence of inequality may be based on the under-reporting of certain incomes by lower-income households.¹³

The estimated size of Mexico's underground economy was 3.5 times that of Switzerland.

Similarly, Schuetze examined non-compliance by self-employed Canadians in reporting income.¹⁴ He found that between 12 and 24 percent of self-employment income was under-reported.¹⁵ Again the same type of effect discussed previously would be observed from the

under-reporting of self-employment income although it would not necessarily be concentrated at lower levels of income. However, the combination of these insights as well as others into the under-reporting of income necessarily means caution needs to be employed when comparing reported income to calculate inequality.

Unreported Income

A related issue to the under-reporting of income is unreported income. This is distinct from not disclosing the full value or amount of income from certain sources since these incomes go entirely unreported. Unreported income includes both legal and illegal activities.¹⁶

One of the earlier estimates for the size of the underground economy in Canada was provided by David Giles and Lindsay Tedds in their paper for the Canadian Tax Foundation.¹⁷ They estimated the size of the underground economy at 15.7 percent for 1995.¹⁸ A review of the then-existing research on the size of the underground economy in Canada by the Library of Parliament in 2004 indicated a range of 8-16 percent of GDP.¹⁹

Caution needs to be employed when comparing reported income to calculate inequality.

There are also estimates of the size of the Canadian underground from international organizations, like the International Monetary Fund (IMF) and World Bank, which have conducted and continue to conduct research in this area. The IMF, for example, calculated the average size of Canada's underground economy for the 1994-95 and 1996-97 fiscal years at 14.8 percent of GDP and 14.9 percent of GDP, respectively.²⁰

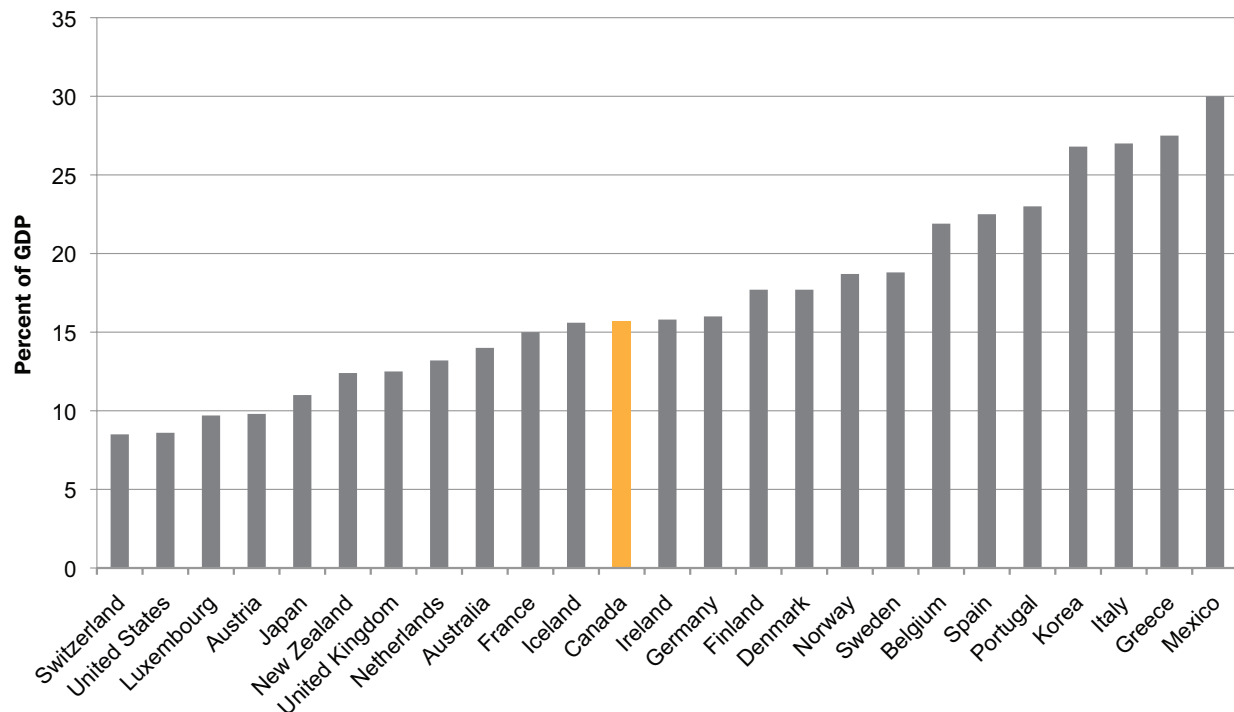
More recently, Friedrich Schneider along with his colleagues updated estimates for the size of the underground economy in developing, transitional, and OECD countries for the World Bank.²¹ The estimate for Canada for 2007, the most recent year of data included in the report was 15.7 percent of GDP (fig. 2). The estimates for Canada over the 1999 to 2007 period, ranged from 16.3 percent of GDP to 15.3 percent of GDP.²²

International Considerations

An important aspect of the international comparisons that normally constitute or at least contribute to studies of income inequality is the relative estimated size of the underground economies in each country. As illustrated below, the ranges of the size of underground economies in different countries presents a real obstacle for inter-country comparisons, particularly between countries in different stages of economic development.

The study for the World Bank, which is the main source for this section of the paper, calculated the sizes of the underground economy for developing, transitional, and OECD (developed) countries. Figure 2 presents the estimates for the size of the underground economy for the 25 OECD countries covered in the study for the period 1999-2007.

FIGURE 2 Size of the underground economy in select OECD countries (1999-2007 average)

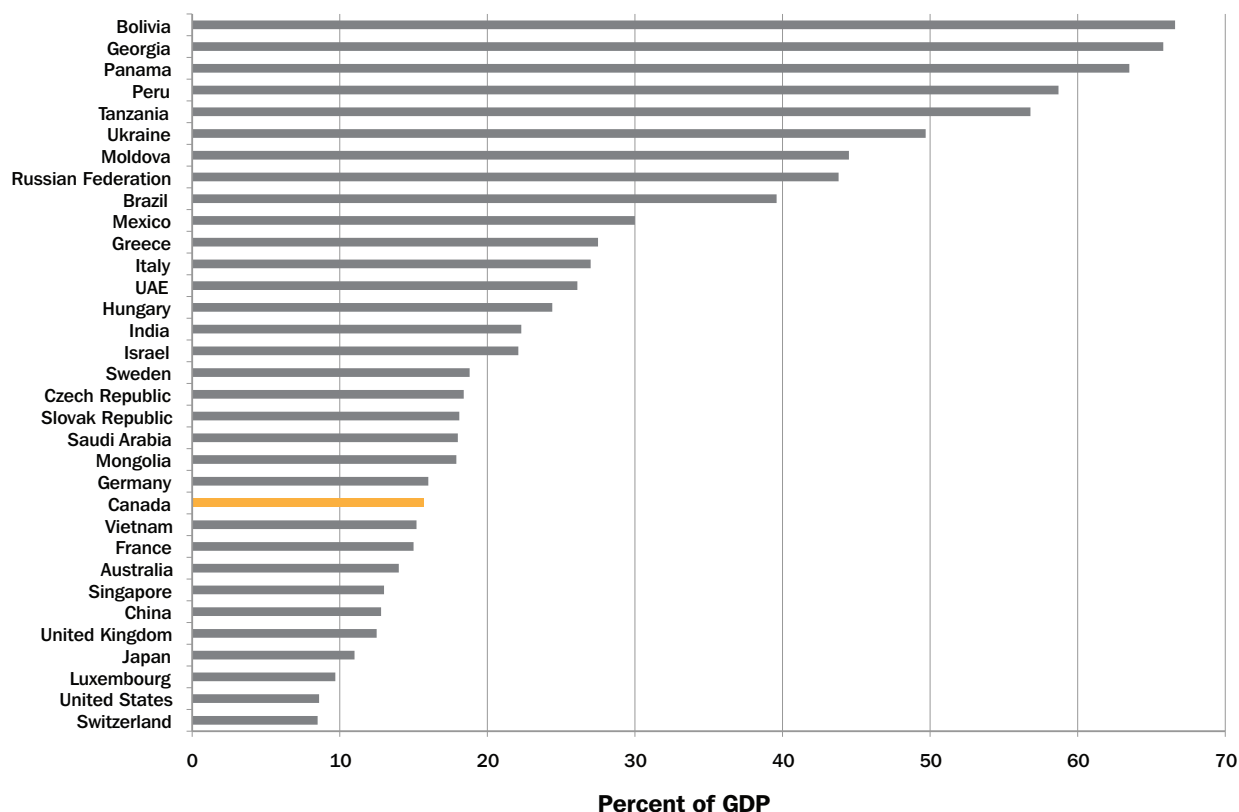


Source: Friedrich Schneider, Andreas Buehn, and Claudio E. Montenegro. 2010. (World Bank Policy Research Working Paper 5356.) "Shadow Economies All Over the World: New Estimates for 162 Countries from 1999 to 2007."

Canada ranked 12th of the OECD countries with an estimated average underground economy of 15.7 percent of GDP over the 1999 to 2007 period. The estimates for the size of the underground economies in the developed OECD countries ranged from 8.5 percent of GDP (Switzerland) to 30.0 percent of GDP (Mexico). Put differently, the estimated size of Mexico's underground economy was 3.5 times that of Switzerland (smallest estimated underground economy).²³

The World Bank study also included calculations for 98 developing countries. The range of estimates for the underground economy in developing countries was from 12.8 percent in China to 66.6 percent in Bolivia.²⁴ It also included a calculation for 21 transitional countries. The range of estimates for the underground economy for these countries, largely former Soviet Bloc countries, was 18.1 percent in the Slovak Republic to 65.8 percent in Georgia.²⁵

FIGURE 3 Size of the underground economy as a share of GDP for select countries (1999-2007 average)



Source: Friedrich Schneider, Andreas Buehn, and Claudio E. Montenegro. 2010. (World Bank Policy Research Working Paper 5356.) "Shadow Economies All Over the World: New Estimates for 162 Countries from 1999 to 2007."

Note: Countries were selected as follows: top and bottom three for the OECD and transition countries, top and bottom four for developing countries, G-7, and several countries of interest.

Figure 3 illustrates the wide range of estimates for the size of the underground economy for select OECD, developing, and transition countries for the 1999-2007 period. There are a number of interesting and important insights to be gleaned from figure 3. However, the key lesson for the purposes of understanding international comparisons of inequality is the enormous range of the size of the underground economy and how it can materially influence our estimates and understanding of inequality. Indeed, the effects of under-reported and unreported income have important implications for both domestic and international comparisons of income and thus our ability to accurately calculate income inequality.

3) UNDERSTANDING POVERTY VERSUS INCOME INEQUALITY

The difference between poverty and income equality may seem self-evident, but all too often groups advocating for solutions to income inequality either conflate the two concepts or treat them as synonymous. Traditionally, poverty refers to a level of income at which basic necessities, such as food, clothing, and shelter are unattainable or difficult to secure. This type of material poverty has also been referred to as absolute poverty.²⁶

Income inequality is a concept distinct from poverty. It refers simply to the ratio of one group's income compared to another group's income. Income inequality is sometimes referred to as relative poverty. To understand the distinction between these two concepts it is useful to use an admittedly extreme example. Suppose we have a group of ten people, nine of whom earn a billion dollars a year while the other earns a million dollars annually. No one would observe anyone in this group as being subject to poverty. Indeed, each of the ten people would be categorized as extraordinarily affluent. However, income inequality in terms of the bottom decile and the top decile would be extreme: 1,000:1. In other words, the top decile earner received 1,000 times the income of the bottom decile. This is an extreme example meant solely to illustrate the differences between poverty and income inequality.

It is therefore critical that a clear understanding of one's concerns be established when discussing poverty or income inequality. The concern about material living standards (poverty) is a distinct and separate concern from income inequality, which measures the relative income of certain groups compared to other groups.

Income inequality is a concept distinct from poverty.

These two approaches, examining absolute poverty levels versus differences in relative income, yield very different results. In 2006, the last time Professor Chris Sarlo of Nipissing University updated his measures of absolute poverty, he found poverty thresholds were \$10,314 for a single individual and \$22,852 for a family of four.²⁷ Sarlo calculates these estimates of absolute poverty by determining the cost of necessities such as food, shelter, clothing, health care, personal care, home furnishings, transportation, communication, insurance, and other basic necessities for various communities across Canada. The poverty thresholds are defined as the income required to secure these basic necessities.

A relative measure of poverty, referred to as LICO (low income cut-off) is calculated annually by Statistics Canada. It is a partial measure of relative poverty. LICO is an income threshold below which households spend a larger share of their income on necessities such as food, clothing, and shelter than average families. Statistics Canada calculates the income level at which a family would spend 20 percentage points more than the average family on these basic necessities. Note that is not calculated based on the income to secure basic necessities but rather as a proportionate share of income compared to average families. The 2006 LICO for an individual was \$17,570 and \$33,221 for a family of four.²⁸ Put differently, the relative measure of poverty was almost 70 percent higher for individuals than the absolute measure of poverty.

4) INCOME VERSUS CONSUMPTION STATS

Another complicating factor in understanding inequality is the question of whether or not income is the appropriate or best indicator of inequality. This complication is highly related to the previous discussion regarding absolute versus relative poverty. Like that question, this complication is focused on whether the underlying concern is related to the ability of lower-income households to secure basic necessities and other amenities or whether the concern relates to the relative income of certain households compared to other households.

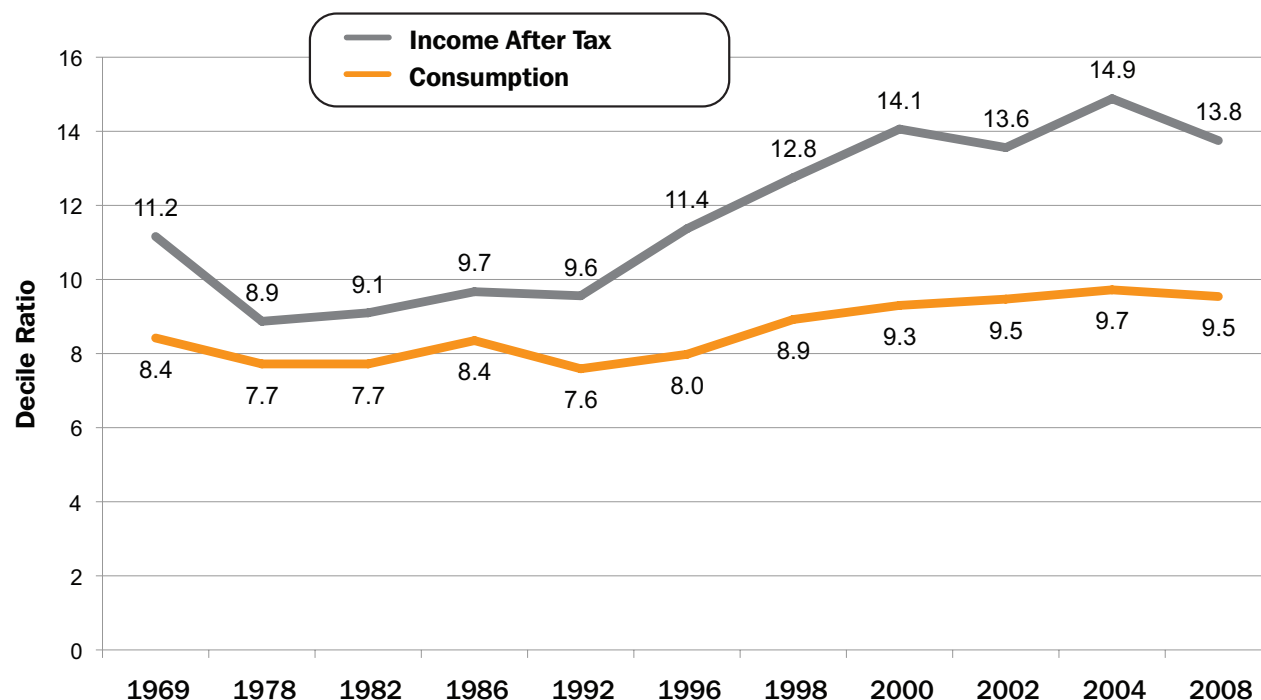
If the concern is the ability of households to secure basic necessities and other amenities, then measures of consumption are superior to measures of income.²⁹ There are two related reasons for the superiority of consumption measures compared to income. First, consumption measures are more closely tied to the material standard of living secured by a household in any particular discrete period of time. Second, and more importantly, households tend to smooth their consumption over time, which means that their consumption varies less than income.³⁰ This means that there are times when households save (consumption is less than income) and other times when households borrow or dis-save (consumption is more than income).³¹

There are a variety of reasons for these fluctuations in income compared to consumption. Most critically is the fact that households don't change their long-term or permanent consumption based on temporary or perhaps cyclical variations in their income. Consider for example a sales-person who enjoys a very strong year and is rewarded with a large bonus. Economic theory (and evidence) tells us that the sales-person's household will not change their level of consumption based on one year's bonus and will likely save a substantial portion of the bonus, perhaps in part to weather future periods when income might decline because of poor sales. Put simply, people prefer a stable, steady level of consumption and therefore adjust savings and borrowing (including dis-saving) in order to finance a stable level of consumption. And as discussed previously, consumption is a more direct and accurate reflection of a person's well-being.

Consumption measures are more closely tied to the material standard of living secured by a household.

To a certain extent some of the effect of the consumption versus income argument was presented in the prior section on challenges in measuring income. The effect recognized in that section related to unreported sources of income such as drawing down a savings account, which means more money available for consumption without changing household income. We observe these types of contradictions on a regular basis when specific household income and consumption are compared and contrasted. For example, in 2004 there were nearly 185,000 households that reported income of less than \$5000 for the entire year while the average reported consumption was almost \$20,000. Another example, again for 2004, is a little over 3500 households with zero reported income but average consumption of \$78,000.³² These examples solidify the real differences that emerge when we examine consumption versus reported income and reinforce the preference for consumption statistics when studying people's economic well-being.

FIGURE 4 Decile ratio for income (after-tax) and consumption 1969-2008



Sources: Statistics Canada; Family Expenditure in Canada and Survey of Household Spending microdata files. Various years.

Note: Professor Chris Sarlo was contracted to update his analysis (2009) comparing inequality measures based on income and consumption.

Figure 4 plots measures of income and consumption inequality³³ starting in 1969 through to 2008 for select years.³⁴ Specifically, the income (after-tax) and consumption levels of the bottom 10 percent are compared (depicted as a ratio) to those of the top 10 percent.³⁵ In 2008, for example, the after-tax income of the top 10 percent was 13.8 times that of the income (after-tax) of the bottom 10 percent. The consumption levels of the top 10 percent were 9.5 times that of the bottom 10 percent (fig. 4 and appendix 1).

There are two important facts emerging from figure 4. First, consumption inequality is lower in every year compared to the level of income inequality. This is a critical consideration since it means that the level of inequality observed, without adjusting for the problems noted in previous sections relating to the measurement of income, was lower in every year when consumption was measured rather than income.

Second, the increase observed in income inequality in figure 4 is greater than the increase observed in consumption. Specifically, income inequality measured by deciles increases from 11.2 in 1969 to 13.8 in 2008, an increase of 23.2 percent. The increase in inequality measured by consumption, however, only increases 13.1 percent from 8.4 in 1969 to 9.5 in 2008.

5) CHANGING HOUSEHOLDS

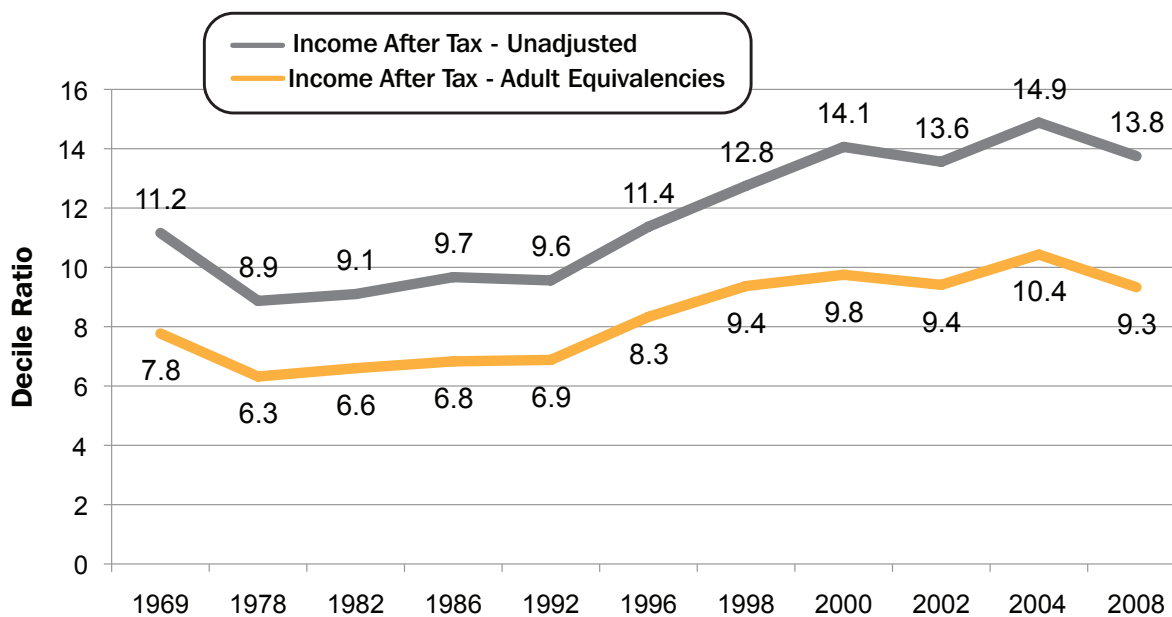
Another complicating factor to consider, and one that to a certain extent relates to the causes of changes in inequality is the shifting nature of households. This section focuses simply on how the changing nature of households influences the measurement of inequality.

It is first important to recall that the measures of income and thus income inequality are based on households rather than individuals. One of the main factors to consider in the changing nature of households is the increased rate of single-parent and single-income households. This simple change in the composition of households has the potential to materially affect measuring differences between households. A standard approach is to adjust the statistics for households to reflect adult equivalencies. Adjusting the data to reflect adult equivalencies is not simply compensating for the number of people in a household. It requires adjusting both income and consumption statistics to better reflect the reality of households.

Figures 5A and 5B present the adjusted inequality measures for both income (after-tax) and consumption based on adult equivalents.

Measures of inequality are reduced by almost one-third by simply accounting for the changing nature of households over time.

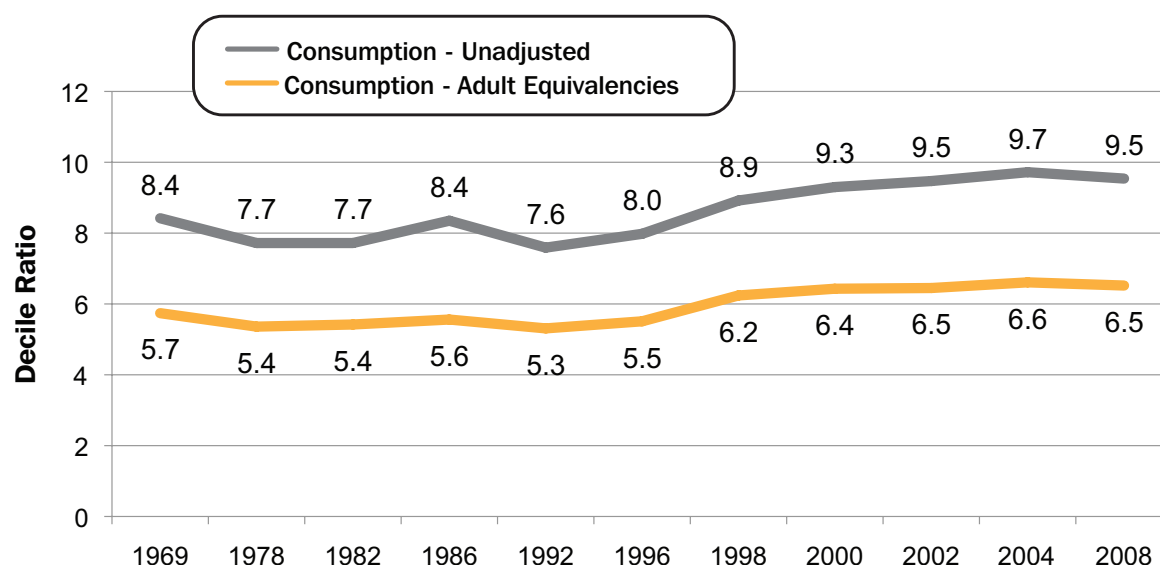
FIGURE 5A Inequality in adult equivalent income (after-tax), 1969-2008



Sources: Statistics Canada; Family Expenditure in Canada and Survey of Household Spending microdata files. Various years.

Note: Professor Chris Sarlo was contracted to update his analysis (2009) comparing inequality measures based on income and consumption.

FIGURE 5B Inequality in adult equivalent consumption, 1969-2008



Sources: Statistics Canada; Family Expenditure in Canada and Survey of Household Spending microdata files. Various years.

Note: Professor Chris Sarlo was contracted to update his analysis (2009) comparing inequality measures based on income and consumption.

This simple adjustment to better measure similar households over time reduces the inequality, both for measures of income (fig. 5A) and consumption (fig. 5B) by roughly 30 percent.³⁶ In other words, the measures of inequality are reduced by almost one-third by simply accounting for the changing nature of households over time. This is again another important complicating factor in understanding inequality over time. Specifically, by ignoring the changing nature and composition of households over time, analyses of inequality could mistake changing households for changing inequality.

6) SOURCE OF INEQUALITY—IT'S NOT THE SAME EVERYWHERE

The source of inequality is often ignored by those who argue inequality is of no concern. In simple terms there are three broad ways in which to acquire income and wealth. In most industrialized countries, people achieve success and wealth by consistently providing a good or service demanded by customers at a time and price they're willing to pay. Over time, this forces existing companies to constantly innovate and reinvest themselves in order to compete with start-ups and other competitors.

There are less productive ways by which people can achieve success and wealth, which are dependent on government regulations and intervention in the marketplace.³⁷ One relates to legal protection that people can secure for themselves or their companies. These can take the form of protective tariffs for a company to protect them from foreign competitors or monopoly rights to protect them from domestic competitors. It can also take the form of

exclusive rights to natural resources in countries with resource endowments.³⁸ In all of these cases, individuals have been able to secure income and wealth by protecting their business interests and other endeavours using the power of government. While legal, these activities are distinct from the entrepreneurial efforts discussed above. Put differently, the wealth derived from these activities is based on special favours from the government rather than satisfying the wants and needs of customers.

A final method by which to secure affluence and wealth is through theft facilitated by the state government. Unfortunately in many developing countries, individuals have been able to misallocate large sums of money and resources from the population with little or no repercussions. When inequality is a result of either the second or third forms of wealth accumulation, namely securing special favours from the government or outright theft, such inequality should be of concern.

No country purely maintains one system where all of the economic activity is characterized by one of the three profiles provided above. Canada, thankfully, is generally characterized by entrepreneurs and businesses that are successful by servicing customers. However, like many industrialized countries, Canada protects certain industries and companies, which results in higher-than-normal income and wealth accumulation for those individuals lucky enough to be in those protected companies and sectors. Similarly, there are entrepreneurs in many of the countries identified as corrupt trying to achieve success by servicing their fellow citizens rather than securing privilege through the state.

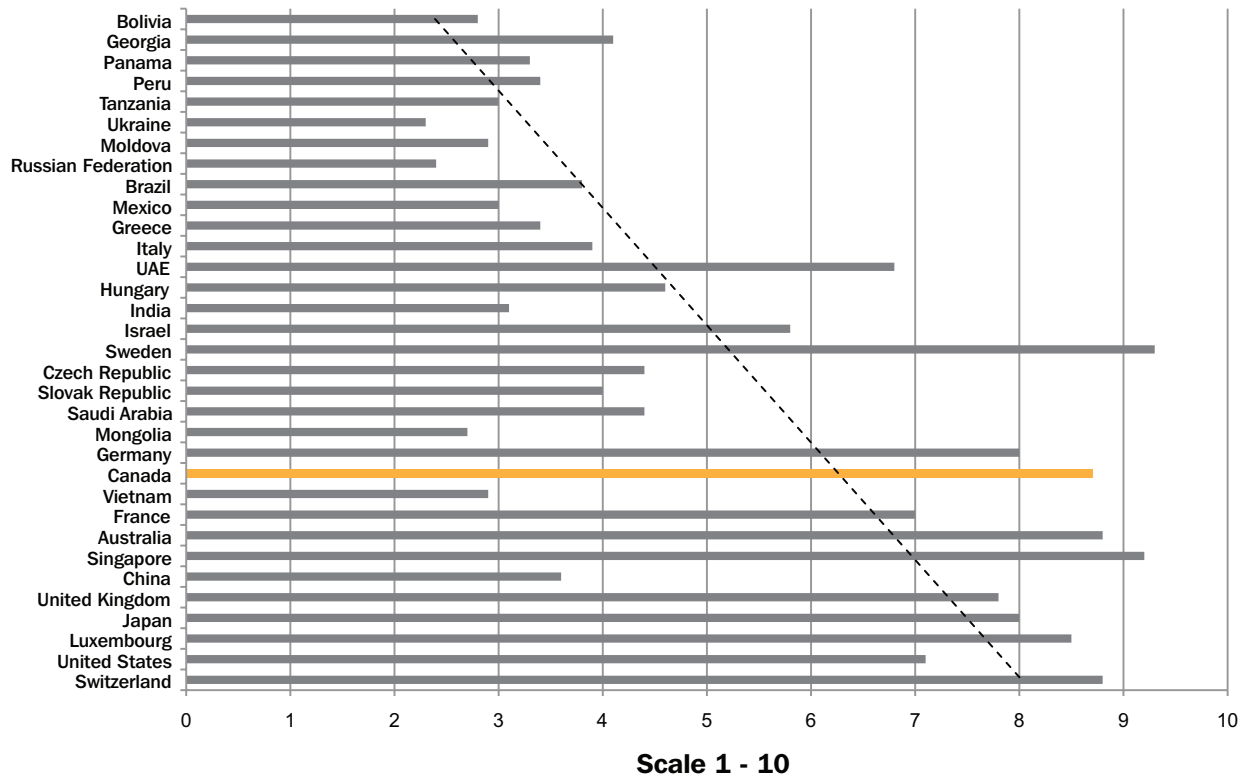
It should be a concern when inequality is a result of securing special government favours or outright theft.

The income inequality that emerges in these different countries should not be treated as if it all derives from the same source. The benefits from entrepreneurial activities are distributed broadly across society. For example, the initial success of Research in Motion (RIM) in Canada benefited millions of people by improving the products they had access to, making workers more productive, and reducing the time and cost to communicate and acquire information, not to mention the direct and indirect jobs created by the success of RIM. This experience is profoundly different than one in which an individual or family is able to secure monopoly rights in a country through political patronage, influence, or lobbying. In these cases, the overwhelming benefits of the activities are retained by the individuals or families controlling the monopoly. Equating the income inequality that emerges from these two diverse sets of economic activities is not only distorting but fundamentally misleading. The income inequality from an entrepreneurial system is much less worrying, if at all relative to the latter type of inequality, which is disconcerting.

The latter two types of methods by which to acquire income and wealth are somewhat related to the level of corruption observed in a country. Transparency International³⁹ is dedicated to educating and providing information regarding corruption in the public sector globally. Their annual Corruption Perceptions Index is an important source of comparative information.⁴⁰

Figure 6 illustrates the index scores for a select group of countries based on Transparency International's 2011 report on corruption.

FIGURE 6 Corruption index scores for select countries, 2011



Source: Transparency International. 2011. Corruptions Perception Index 2011.

The higher the score illustrated in figure 6, the lower the level of perceived corruption in the public sector in the country. Countries like Sweden, Singapore, Switzerland, Australia, and Canada are deemed to have very low levels of corruption (as indicated by their high scores). On the other hand, countries such as Ukraine, Russia, Mongolia, Bolivia, Vietnam, and Mexico are considered quite corrupt (as illustrated by a low score).

Figure 6 also illustrates the complexity of understanding corruption and its influences. The size and scope of an underground economy is often linked to corruption. The countries presented in figure 6 are the same group (in the same order) depicted in figure 3, which shows the estimated size of the underground economies for a select group of countries.

In many cases we see a relationship between the size of the underground economy and the level of perceived corruption. Countries with large estimated underground economies are presented at the top of figure 6 while countries with smaller underground sectors are depicted lower on the chart. This indicates a correlation: Countries listed at the top also score a low value in their corruption and countries list at the bottom score highly on the corruption index.

There are, of course, exceptions where countries with large underground economies have low corruption, such as the UAE, and where countries with small underground economies have high corruption, such as Mongolia, Vietnam, and China.

The thin dotted line in figure 6 represents the correlation, or relationship between the score on corruption and the size of the underground economy. In a simple statistical sense, there is a strong positive relationship between the level of corruption and the size of the underground economy.

All countries possess some level of corruption in the public sector.

More importantly for the purposes of this paper, figure 6 illustrates how all countries, even well developed countries like Canada, possess some level of corruption in the public sector. It is this corruption that lays the foundation for individuals and businesses to be able to extract income and wealth from society without necessarily serving it by providing demanded goods and services in a timely manner. Indeed, this form of business has rightly been criticized as crony capitalism and should be a concern for its direct effects and the income inequality it can facilitate.

7) INEQUALITY AND MOBILITY

The next two topics discussed introduce the dynamic nature of labour markets and society into the mix of factors that need to be considered when thinking about income inequality. An often implied but almost never discussed dimension of inequality is that people are stationary over time. In other words, it is often inferred that those in low income or experiencing poverty today are also those in low income or poverty tomorrow.

Thankfully, the opposite is true. Canada and most industrialized countries⁴¹ enjoy fair degrees of income mobility, which means the incomes earned by individuals and households change from year-to-year. The following section explains the conceptual dimensions of mobility as well as some of the available data for Canada.

The concept of income mobility is fairly straightforward.⁴² It suggests that over time people experience variations in their income for a variety of reasons, many of which are naturally part of one's life-cycle. Take for example the case of Jane, who is an average middle-class teenager. She lives at home, studies hard, and has a part-time job. Her earnings are minimal given both the limited number of hours she is able to work coupled with her limited skill set and experience. Jane works her way through school and acquires a post-secondary degree. She is able to secure employment right out of school given the demand for her position. Her earnings are higher than before based on a combination of her education and full-time work status. However, her earnings are still modest given her limited experience.

Jane meets Bob and eventually they marry. Both now experience a pronounced increase in their standard of living since all of their fixed costs, like rent, utilities, and so on are now shared expenses. At the same time, Jane has continued to work hard at her job and obtained some additional formal training. The work experience coupled with additional training has resulted in promotions and higher pay.

Soon Jane and Bob decide to start a family, and consider Jane taking some time off work to raise their young children. Bob's salary increases and promotions have meant they can weather the reduction in Jane's pay for a couple years. As both children (statistically, 2.1 children) approach school-age, Jane returns to work on a part-time basis. Once both children are in school, Jane is able to return to full-time status.

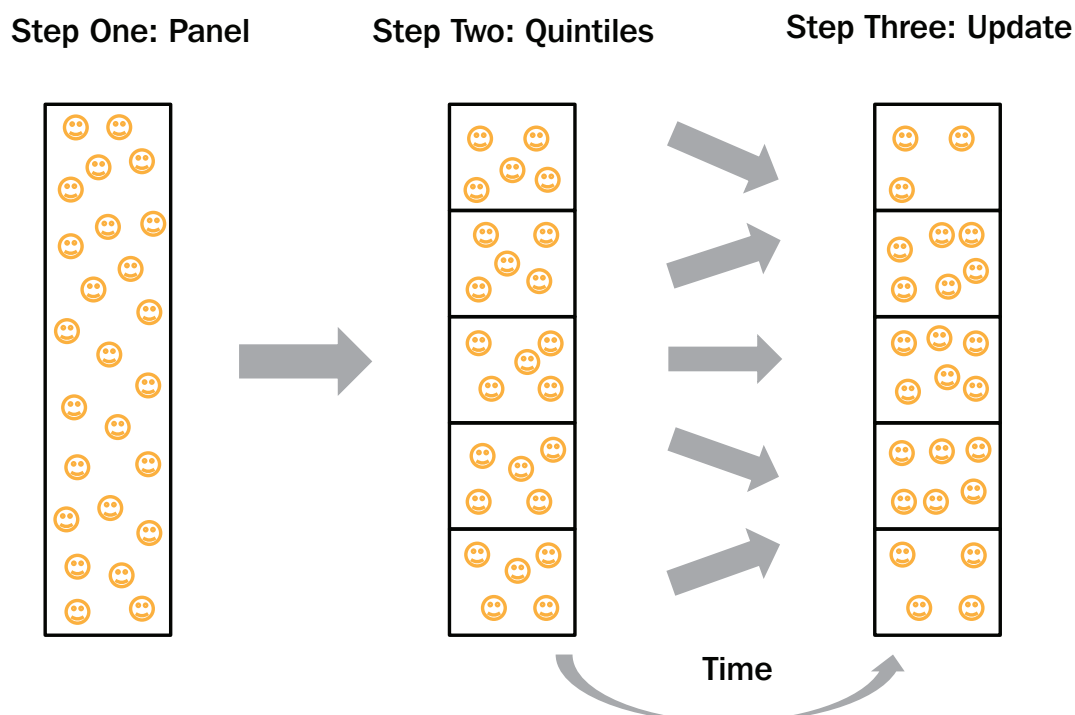
Canada enjoys a fair degree of income mobility.

After a few years of getting up-to-speed on changes in the industry in which Jane works, as well as generally re-establishing herself in the company and sector, Jane returns to her pre-children career path. Eventually the children grow up and head off to school. As Jane and Bob approach retirement age, they both start to decelerate their careers and transition to part-time work. Both decide to stop working and pursue other endeavours when they reach retirement age.

More details and examples of natural changes in the income of Jane (and Bob as a household) could have presented, including Jane or Bob losing their job and relying on unemployment insurance during the period between employment. The point, however, is that there is a natural life-cycle that occurs with respect to income based on education, experience, family status, and a host of other factors. This life-cycle means individuals and households move up and down the relative income ladder throughout their lives.

Statistics Canada maintains and publishes results from the Survey of Labour and Income Dynamics (SLID), which regularly follows specific individuals over time.⁴³ This type of data, referred to as panel data, allows us to capture and analyze changes in the income and labour status of people over time. Put differently, it allows us to understand the level and depth of mobility in Canada. Figure 7 presents a simplistic framework for how such panel data is collected.

FIGURE 7 A simplified conceptual framework of how mobility is measured



First, a group or panel of people are identified. Statistics are collected for each individual within the group such as their gender, age, family composition, working status, and so forth. Next, the group is separated into five equal groups or quintiles based on earnings. At regular intervals over time, Statistics Canada checks in with members of the group to assess changes. In terms of our particular interest, the focus is on how the earnings of the individuals changed over time.

The most recent publication by Statistics Canada with panel data from SLID is *Income in Canada, 2009* published in 2011.⁴⁴ Table 1 presents data for the one-year period between 2008 and 2009. It also includes comparative data from 1996-97. The individuals covered by SLID are divided into quintiles. Table 1 presents the movement from one quintile to another, both upwards and downwards. Specifically, the first column of data presents the percent of individuals who started in that quintile and moved up to a higher quintile during the one-year period. The second column is the opposite. It measures the percentage of individuals who moved down to a lower quintile over the course of the year. Finally, the third column calculates the total mobility for each quintile by combining the values of those moving up and down.

TABLE 1 One-year relative income mobility

	2008-2009			1996-97		
	Proportion of persons who moved into a higher quintile (Percent)	Proportion of persons who moved into a lower quintile (Percent)	Total Mobility (Percent)	Proportion of persons who moved into a higher quintile (Percent)	Proportion of persons who moved into a lower quintile (Percent)	Total Mobility (Percent)
Lowest Quintile	25	0	25	27	0	27
Second Quintile	26	14	40	22	17	39
Third Quintile	24	20	44	23	20	43
Fourth Quintile	19	23	42	16	23	39
Highest Quintile	0	24	24	0	22	22
Overall Average	19	16	35	18	16	34

Source: Statistics Canada. 2011. *Income in Canada, 2009*. Ottawa, ON: Statistics Canada.

Twenty-five percent of individuals who started in the lowest quintile in 2008 moved to a higher quintile by 2009. This is slightly less than the comparative number for 1996-97 (27 percent). Upward mobility, meaning individuals who moved up at least one quintile over the course of the year ranged from 19 percent for those in the fourth quintile (meaning they moved from the fourth quintile to the highest quintile) to 24 percent for those in the middle quintile. Higher levels of upward mobility, albeit only slightly higher were observed for the three of the four quintiles with upward mobility compared to 1996-97. (One cannot move upward from the highest quintile.)

There was also downward movement, which given the conceptual framework outlined previously would be expected. For example, 24 percent of those individuals who started in the highest quintile (2008) moved down into a lower quintile in 2009. The range of downward movement was 14 percent for those in the second quintile to 24 percent for those in the highest quintile. The level of downward mobility was lower for those in the second quintile, the same for those in the third and fourth quintiles, and slightly higher for those in the highest quintile compared to 1996-97.

Finally, it is worth noting that the averages presented in table 1 as calculated by Statistics Canada are a bit misleading since they include the zero values for people moving upward from the highest quintile and downward from the lowest quintile (recall that one cannot move up from the highest quintile or down from the lowest quintile). Once these zero values are excluded, we observe an average upward mobility of 23.5 percent and a downward average movement of 20.3 percent over the course of 2008-09. Simply put, the figures for 2008-09 as well as for 1996-97 reflect a fairly mobile society where individuals move up and down the income ladder.

Statistics Canada also presents longer-term panel data that covers an extended length of time. Table 2 presents similar mobility data as included in table 1 except that it covers a five-year period from 2005 to 2009, as well as a comparative period from 1993-97.

TABLE 2 Five-year relative income mobility

	2005-2009			1993-1997		
	Proportion of persons who moved into a higher quintile (Percent)	Proportion of persons who moved into a lower quintile (Percent)	Total Mobility (Percent)	Proportion of persons who moved into a higher quintile (Percent)	Proportion of persons who moved into a lower quintile (Percent)	Total Mobility (Percent)
Lowest Quintile	43	0	43	41	0	41
Second Quintile	41	20	61	38	20	58
Third Quintile	34	29	63	33	27	60
Fourth Quintile	24	38	62	25	34	59
Highest Quintile	0	40	40	0	39	39
Overall Average	28	25	53	27	24	51

Source: Statistics Canada. 2011. Income in Canada, 2009. Ottawa, ON: Statistics Canada.

The highest level of upward mobility is observed for those in the lowest quintile. Forty-three percent of individuals who began the period in the lowest quintile moved into a higher quintile by the end of the five-year period. This is slightly higher than the rate observed in 1993-97 (41 percent). Indeed, a consistent pattern is observed for both five-year periods wherein the highest level of mobility is observed at the lower end of the income spectrum while lower levels of upward mobility are observed at the higher end of the income spectrum.

The range of upward mobility for this five year period is 24 percent (fourth quintile) to 43 percent (lowest quintile). The rates of upward mobility for the 2005-09 period are higher than observed for the 1993-97 period, albeit only slightly higher for the bottom three quintiles. The upward mobility rate for the fourth quintile is slightly lower: 24 percent versus 25 percent.

There is also downward mobility, which is basically the reverse dynamic of the upward mobility. The highest rates of downward mobility for both periods are observed in the highest quintile. Specifically, forty percent of those individuals who began the period (2005) in the highest quintile moved to a lower quintile by the end of the period. The comparable figure for 1993-97 was 39 percent.

Those who experience inequality today are not those who will experience it tomorrow.

Interestingly, the rates of downward mobility in the 2005-09 period are either the same (second quintile) or higher (third, fourth, and highest quintiles) than the comparable numbers for the 1993-97 period. This slightly higher level of downward mobility may have been influenced by the pronounced recession of 2007-2009.

Finally, it is again important to adjust the average mobility numbers calculated by Statistics Canada since they include zero values. Making this adjustment results in average upward mobility of 35.5 percent and average downward mobility of 31.8 percent for the period 2005 to 2009. Put differently, 67.3 percent or over two-thirds of the individuals covered by the data found themselves in a higher or lower quintile in 2009 compared to where they started in 2005, which reflects a high degree of income mobility in society.

It is important to reiterate why one should be concerned about mobility when discussing inequality. Simply put, when 25 percent of the population moves to a higher level of income from the lowest level (measured by quintiles) over a one-year period, and 43 percent move from the lowest level to a higher level of income over five years, it's clear that over time, the people who are experiencing low income change and thus inequality changes quite dramatically. In other words, those who experience inequality today are not those who will experience it tomorrow. Thus, a critical component of any reform measure as well as a necessary step in understanding the nature of inequality is to acknowledge and quantify the degree of mobility in society and avoid any policies that would impede such mobility.

8) EXPOSURE TO AND ESCAPE FROM LOW INCOME IN CANADA

While the general issue of mobility is important, given the focus on inequality it is worth spending some time to better understand mobility for those at the bottom of the income spectrum as well as exposure to low income more broadly.

First, it is helpful to reiterate the mobility data from the previous discussion for those in the lowest quintile. According to the data for 2005 to 2009, 43 percent of individuals who began the period in the lowest quintile moved to a higher quintile by the end of the period. The results were slightly better than those observed for the five-year period from 1993-97. Put simply, we observe a fair degree of mobility out of the lowest quintile on a consistent basis.

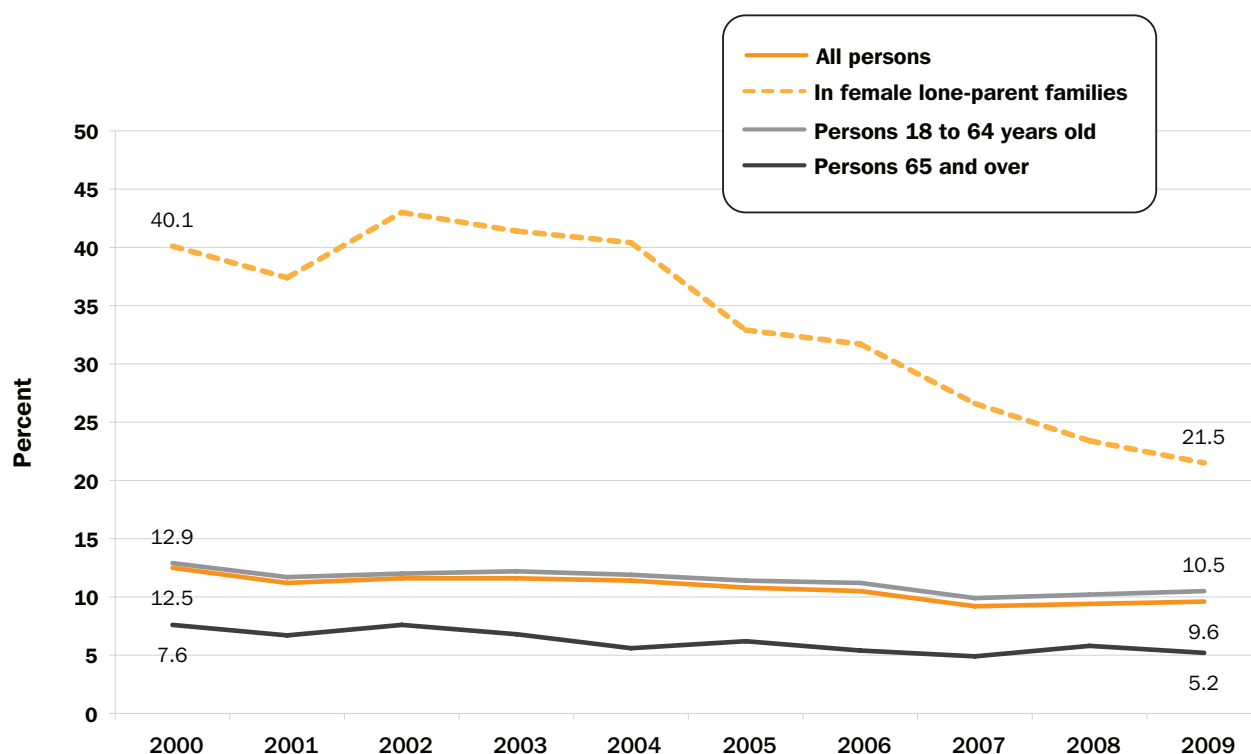
A leading researcher at Statistics Canada, Rene Morissette, who along with several colleagues has completed important research examining income and related factors over time described the experience with low income as follows:

Some believe that the same people have low incomes year after year. According to this view, the population with low income is static, exhibiting little, if any, turnover. However, while living with low income is the long-term reality for some, considerable movement into and out of this takes place over time.⁴⁵

Using the same data employed in the previous section, namely SLID, which follows specific people over time, we are able to observe exposure to low income. Please recall, however, that we are employing a measure of low income rather than poverty (see section 3 for more details).

Figure 8 illustrates the percent of people experiencing low income using after-tax income as the indicator of income and LICO⁴⁶ as the measure of low income. Several facts are observable from figure 8, which covers 2000 – 2009. First, the percent of people in low income declined from 12.5 percent in 2000 to 9.6 percent in 2009, which is up slightly from its low point in 2007 (9.2 percent).

FIGURE 8 Percentage of people in low income, 1992
(based on after-tax income LICO)



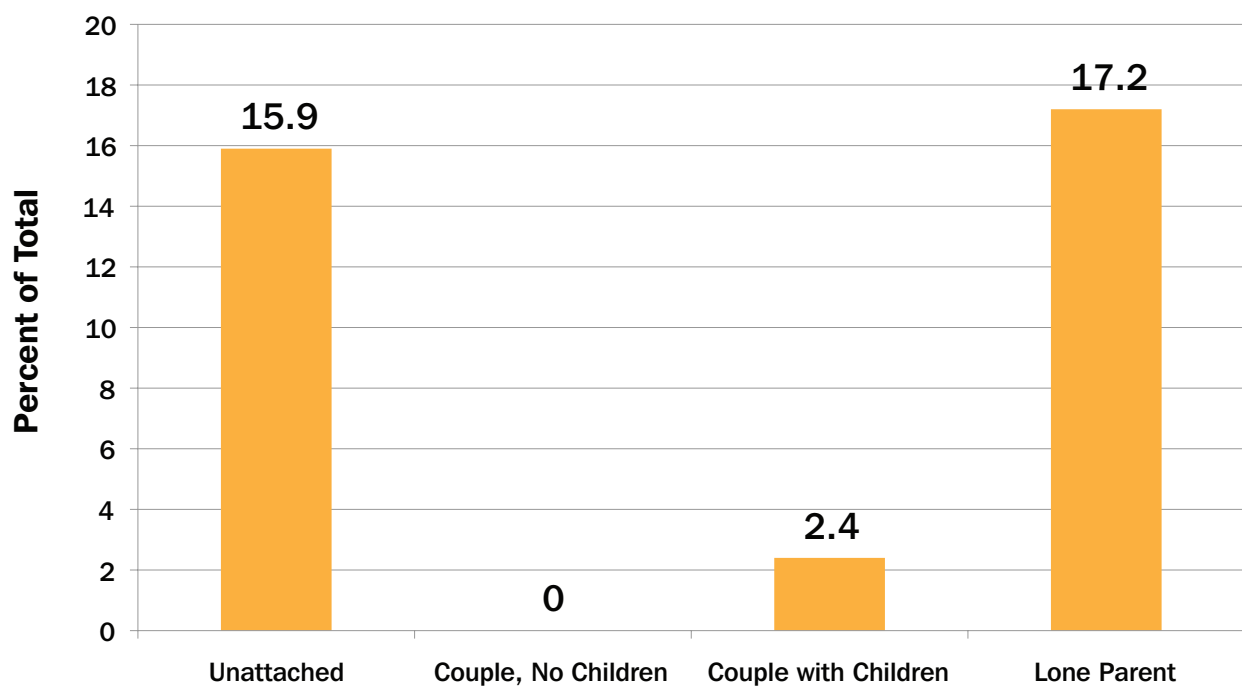
Source: Statistics Canada. 2011. Income in Canada, 2009. Ottawa, ON: Statistics Canada.

Second, the rate of people in low income for seniors is much lower than for the working-age population, although both rates declined over this period. In 2009, for example, 10.5 percent of people ages 18 to 64 were in low income compared to 5.2 percent of seniors.

Finally, and quite critically, the rate of people in low income for those headed by a female lone parent was just over twice the rate of the general population (21.5 percent versus 9.6 percent). The rate of low income for female lone-parent families declined over this period, quite dramatically in fact from 40.1 percent in 2000 to 21.5 percent in 2009. However, the critical insight is that family structure seems related quite strongly with the rate of low income experienced.

Indeed, work by Morissette and his colleague Zhang demonstrate how different family compositions are related to the likelihood of experiencing low income.⁴⁷ Figure 9 shows the percent of individuals consistently experiencing low income based on family composition for the six years covered by the study.

FIGURE 9 People 16 and over experiencing low income for six years, by family composition, 1993-1998

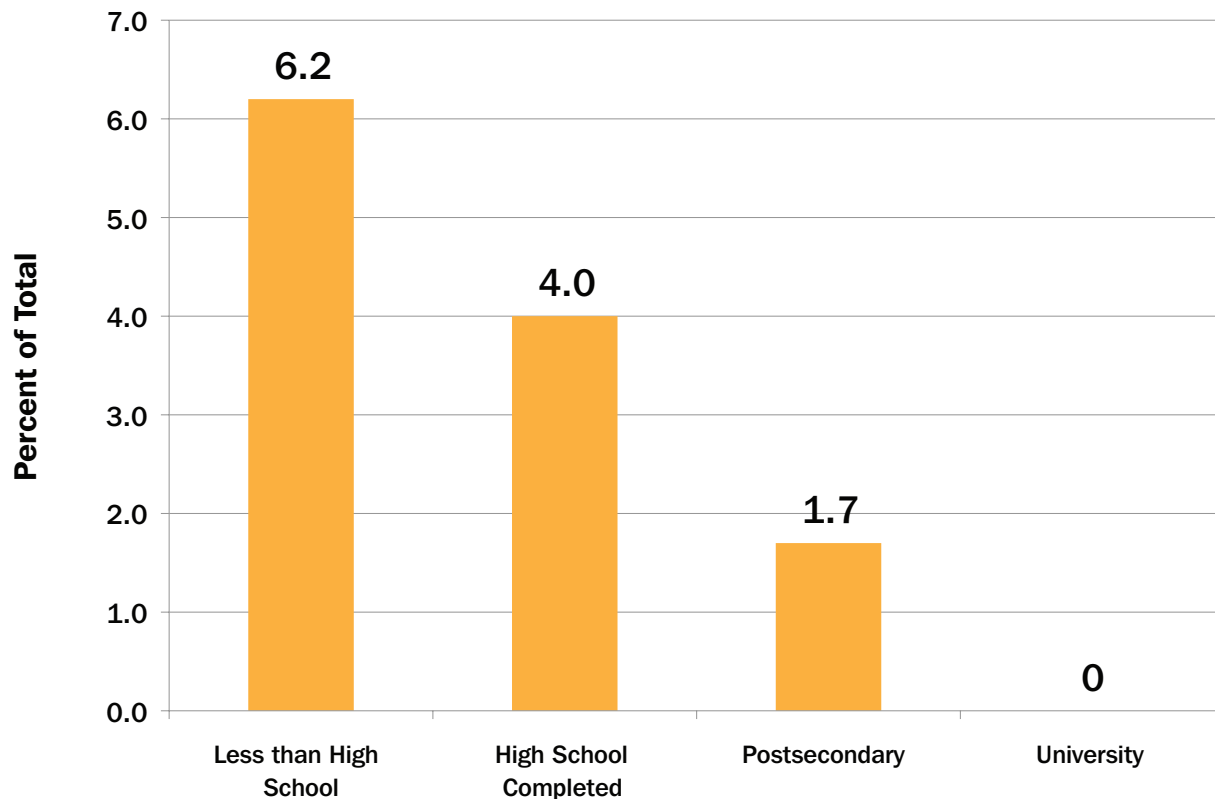


Source: Rene Morissette and Xuelin Zhang. 2001. Experiencing Low Income for Several Years. Statistics Canada, Perspectives. Ottawa, ON: Statistics Canada. Catalogue No. 75-001-XPE.

The results are striking. Over the period covered, 17.2 percent of lone parents experienced low income compared to zero for couples with no children and 2.4 percent of couples with children.

Another finding from the Morissette and Zhang work, which corroborates previous research⁴⁸ is that education influences exposure to low income (fig. 10).

FIGURE 10 People 16 and over experiencing low income for six years, by education level, 1993-1998



Note: Postsecondary includes both partial as well as completed.

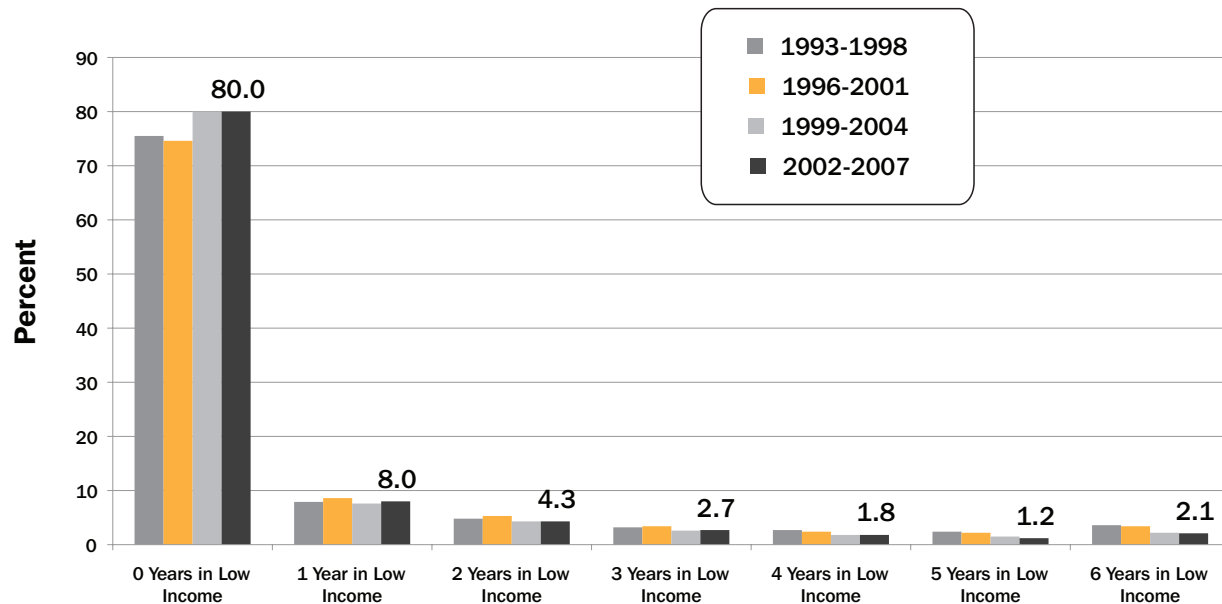
Source: Rene Morissette and Xuelin Zhang. 2001. Experiencing Low Income for Several Years. Statistics Canada, Perspectives, Summer 2001. Ottawa, ON: Statistics Canada. Catalogue No. 75-001-XPE.

For example, 6.2 percent of individuals with less than a high school diploma experience low income consistently for the six years covered by their study. This compares to 4.0 percent for those with high school education, 1.7 percent for those with some post-secondary education, and zero for those with university.

To reiterate, these findings for the relationship between family composition and educational attainment are presented for two reasons. One, they reinforce the fact that such factors influence the likelihood of experiencing low income, which has effects with respect to the broader issue of inequality. Second, and related to the first, is that any attempt to solve inequality must consider these factors and at the very least not encourage decisions that will likely lead to higher exposure to low income.

Returning to the main issue of exposure to low income, data is presented measuring the persistence of low income over time using four different time periods. Figure 11 illustrates the percentage of people exposed to low income for between zero and six years over four different six-year periods. The four periods covered in the analysis were 1993-98, 1996-01, 1999-04, and 2002-07.

FIGURE 11 Persistence of low income



Source: Statistics Canada. 2011. Income in Canada, 2009. Ottawa, ON: Statistics Canada.

There are two key findings for us to consider with respect to low income and its relationship with inequality. First, between 74.6 percent and 80.0 of individuals, depending on the time period, had no experience with low income in any year of the six years. Indeed, the rate of people not experiencing low income increased over the four time periods analyzed from 75.5 percent in the 1993-98 period to 80.0 percent in both the 1999-04 and 2002-07 periods (fig. 11).

Second, the percent of people experiencing low income for all six years was between 2.1 percent and 3.6 percent, depending on the time period. The percent of people experiencing low income declined over the four time periods covered in the study, from 3.6 percent in 1993-98 to 2.1 percent in 2002-07. Put more directly, what could be categorized as a permanent or persistent experience with low income affected between 2.1 and 3.6 percent of the population.

Up to 80 percent of individuals had no experience with low income during the six-year period.

A final note is to observe that roughly 8 percent of the population was exposed to low income for one year out of six years in all four time periods covered. The interaction of these three data conclusions regarding exposure to low income coupled with the panel data discussed previously leaves a strong impression of a fairly mobile society wherein those exposed to and experiencing low income do so for short periods of time. Put differently, the experience with low income tends to largely be a transitional occurrence, which has serious implications for both our understanding of and responses to perceived inequality.

9) INCOME AND TAXES: BALANCED?

The final complicating factor discussed relates almost solely to the solutions advocated for inequality. A common refrain, particularly with the rise of the Occupy Wall Street movement, has been that the top have not carried their fair share of the tax burden. Even scholars have made pointed attacks on top-earners for not contributing their fair share of the tax burden.⁴⁹ Without journeying too far into the proposed solutions for observed inequality, it is worthwhile to understand the actual tax burdens placed on different households relative to their incomes.

What readers might find startling is that in both Canada and the United States, top earners contribute more than their fair share.⁵⁰ Before we delve into the data, a conceptual note is required. Fairness has traditionally meant equality before the law and equal treatment.⁵¹ That is, no particular individual or group should be advantaged by the laws, their interpretation, or enforcement.

Tax fairness, or what has been referred to as tax equity, has two dimensions. The first dimension is horizontal equity. This principle of taxation requires that households with similar incomes face similar or comparable tax burdens.

The second principle associated with tax fairness is vertical equity. This principle requires that as a household's income increases, their tax burden increases. It is related to the basic principle of taxation that requires the tax liability to be related to a household's ability to pay. Simply put, as a household's income increases, so too should their tax burden.

The requirement for vertical equity has morphed into the principle of progressivity. Progressivity requires that the tax bill of an individual or household not only increase as their income increases, but that it increase disproportionately

There is no objective way to determine whether the existing level of progressivity is enough.

compared to income. In other words, progressivity requires that the tax bill for an individual or household increase faster than their income so that as one earns more, one contributes a higher share of their income to taxes.

These principles lead to two tests that help us to better understand the “fairness” of the tax burden placed on different groups based on their income. The first test is a simple objective one: is the tax burden imposed on a group proportional to their income? The second test is subjective, and is the one most often applied by those advocating for larger burdens for upper-income households. This test asks whether the level of progressivity is sufficient. Simply put, there is no objective way to determine whether the existing level of progressivity is enough.

As the following data will show, in both Canada and the United States low-income and even middle-income earners pay much less in taxes than their income would predict while upper-income earners carry a tax burden disproportionate to their income. In Canada, for example, the bottom 20 percent of earners received 4.7 percent of cash income in 2011 and paid 2.0 percent of the total tax bill (table 3).⁵² The middle 20 percent of earners received 15.5 percent of total cash income but paid slightly less, 13.9 percent, of total taxes. For all four of the quintiles from the bottom to the top fourth, the tax burden imposed on them is less than their income. Only the top 20 percent of earners in Canada paid more in taxes as a share of the total than their income shares. Specifically, the top 20 percent of earners in Canada received 46.8 percent of total income in 2011 but paid 54.4 percent of the total tax

bill. Put differently, only the top 20 percent of earners in Canada paid a tax burden in excess of their proportional income. All other earners paid less in taxes (total) than their proportional income. While this data shows strong progressivity in the Canadian tax system, it cannot answer the subjective question of whether it is “enough”.

TABLE 3 Average cash income and total tax bill in each quintile, 2011*

Quintile	Distribution across quintiles			
	Average Cash Income	Average Total Tax Bill, \$	Cash income	Tax
1	\$18,513	\$3,336	4.7%	2.0%
2	\$39,324	\$12,035	10.1%	7.1%
3	\$60,731	\$23,645	15.5%	13.9%
4	\$89,751	\$38,562	22.9%	22.7%
5	\$183,046	\$92,393	46.8%	54.4%

Note: Quintiles group families from lowest to highest incomes with each group containing 20 percent of all families. The first quintile, for example, represents the 20 percent of families with the lowest incomes.

*Preliminary estimates by the Fraser Institute, provided on request based on their macro model of the distribution of taxation.

What might surprise Canadian readers even more is that the burden placed on top earners is more pronounced in the United States than in Canada. For comparative purposes, table 4 presents information similar to table 3, but for the United States. The bottom 20 percent in the United States earned 3.7 percent of income in 2011 and paid 0.2 percent in total federal taxes.⁵³ Put differently, the bottom 20 percent in the United States earned slightly less than their Canadian counterparts but incurred almost no tax burden.

The top 20 percent in the United States, however, earned 54.6 percent of income in 2011 but carried 69.7 percent of the total federal tax burden. The disproportionate burden is even more pronounced for the top 1 percent: They earned 16.8 percent of income and paid 25.6 percent of the total tax burden (table 4).

TABLE 4 Share of US federal taxes by income quintile, 2011

	Share of Total					
	Cash Income	Individual Income Tax	Payroll Tax	Corporate Income Tax	Estate Tax	All Federal Tax
Lowest Quintile	3.7	-2.4	3.3	0.7	0.1	0.2
Second Quintile	8.5	-2.6	9.8	2.0	0.1	2.7
Middle Quintile	13.5	4.7	17.1	3.6	0.1	9.3
Fourth Quintile	19.9	15.4	25.5	6.3	0.3	18.1
Top Quintile	54.6	85.0	44.1	86.6	98.9	69.7
All	100.0	100.0	100.0	100.0	100.0	100.0

Source: Tax Policy Center. 2011. "Share of Taxes Paid Under Current Law, by Cash Income Percentile, 2011." (T11-0114, May 19, 2011). Table in The Numbers. Washington, DC: Tax Policy Center.

Notes:

(1) Tax units with negative cash income are excluded from the lowest quintile but are included in the totals. Includes both filing and non-filing units but excludes those that are dependents of other tax units. For a description of cash income, see <http://www.taxpolicycenter.org/TaxModel/income.cfm>. The cash income percentile classes used in this table are based on the income distribution for the entire population and contain an equal number of people, not tax units. The breaks are (in 2011 dollars): 20% \$16,812, 40% \$33,542, 60% \$59,486, 80% \$103,465, 90% \$163,173, 95% \$210,998, 99% \$532,613, 99.9% \$2,178,886.

(2) The amount for Individual Income taxes are after tax credits (including refundable portion of earned income and child tax credits).

(3) The total for payroll taxes includes both the employee and employer shares of Social Security and Medicare tax.

(4) All Federal Taxes excludes customs duties and excise taxes.

(5) Data are for the calendar year 2011.

(6) Analysis was completed based on current tax laws.

The results from the US data show a similar overall pattern as observed in Canada. Earners outside of the top 20 percent paid less in tax compared to their income levels. Only the top 20 percent paid proportionately more in taxes compared to their relative income. Again, however, this data cannot answer the subjective question of the sufficiency of the progressivity, which is clearly present in the US system.

Two insights emerge from the analysis above. First, high-income earners in both Canada and the United States already pay a disproportionately large share of taxes compared to their income. Second, and perhaps more interesting, the call for progressivity by many reform-minded people in both countries is misleading. After all, the tax system in both countries is already highly progressive, meaning that as one's income increases, the burden of taxation placed on the individual increases disproportionately. The demands are not actually for progressivity since it already exists but rather for even greater progressivity. Thus, an honest argument is that redistribution already exists but advocates prefer even more redistribution.

CONCLUSION

The aim of this paper has been to explain and document many complicating factors that must be incorporated into our understanding and analysis of inequality. Ignoring important factors such as serious challenges in measuring income, the efficacy of consumption rather than income measures, the role of the underground economy, the source of inequality, the effects of corruption and crony capitalism, and the mobile nature of our societies all result in oversimplifying a complicated social phenomenon. In doing so, we significantly risk prescribing solutions that either don't solve the underlying problem or indeed could very well worsen the situation.

ENDNOTES

- 1 For an overview of many of the different aspects of inequality, see: Green, David A. and Jonathan R. Kesselman, eds. 2006. *Dimensions of Inequality in Canada*. Vancouver, BC: University of British Columbia Press. Available at http://books.google.ca/books?id=pgPBMVYO8DoC&pg=PA9&lpg=PA9&dq=pendakur+consumption+inequality&source=bl&ots=VGYYDDoX6dj&sig=xMHRNGmWl7BAK3Vgx-HCqAX118c&hl=en&ei=FMjiTvfsDqnL0QGNvNjgBQ&sa=X&oi=book_result&ct=result&resnum=10&ved=0CGcQ6AEwCQ#v=onepage&q=pendakur%20consumption%20inequality&f=false.
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- 5 For a discussion of the relationship between societal preferences and income inequality please see a recent NBER paper: Kerr, William R. 2012. "Income Inequality and Social Preferences for Redistribution and Compensation Differentials." National Bureau of Economic Research Working Paper #17701. Available at <http://papers.nber.org/papers/W17701>.
- 6 For an excellent overview of the arguments in support of concerns regarding income inequality, see: Macleod, Colin M. and Abigail Eisenberg. 2006. "Normative Dimensions of Equality." In *Dimensions of Inequality in Canada*, edited by Green and Kesselman. Vancouver, BC: UBC Press.
- 7 There are certainly other complicating factors to consider when examining income inequality. For example, Herbert Grubel, retired economics professor from Simon Fraser University has argued that immigration has effects on income inequality. For more information see: Grubel, Herbert. 2011. "The untold tale about income inequality." *Vancouver Sun*, December 18, 2011. Available electronically at <http://www.immigrationreform.ca/english/view.asp?x=899&id=81>.
- 8 One issue to consider in the US context, which does not affect Canadian statistics or most industrial countries, is the accounting treatment of health care spending. Costs associated with employer-provided

- health care benefits to American workers are not included as taxable income in the United States. Some have argued this oversight in the data explains some of the observed changes in inequality over time. See: Cannon, Michael. 2012. "Is Income Inequality Increasing? Only If You Don't Count Health Benefits." *Cato@Liberty*, January 3, 2012. Available at http://www.cato-at-liberty.org/is-income-inequality-increasing-only-if-you-dont-count-health-benefits/#utm_source=Cato+Institute+Emails&utm_campaign=a5e1a43d1d-Should_the_Government_Require_Insurance_1_24_2012&utm_medium=email; in addition, the Cato Institute's *Regulation Magazine* (<http://www.cato.org/pubs/regulation/regv34n4/v34n4-6.pdf#page=10>) includes summaries of two recent studies (page 10) examining the effect of health care costs and inequality statistics: Warshawsky, Mark J. 2011. "Can the Rapid Growth in the Cost of Employer-Provided Health Benefits Explain the Observed Increase in Earnings Inequality?" (September 2011). *SS RN #1932381*; and Burkhauser, Richard V. and Kosali I. Simon. 2010. "Measuring the Impact of Health Insurance on Levels and Trends in Inequality." *NBER #15811* (March).
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 - 11 The same result holds if we examine quintile data (appendix 1). The ratio of income inequality by quintile for 2008 was 9.8 based on pre-tax income. The ratio drops to 7.9 when after-tax income is used, a reduction of almost 20 percent.
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 - 24 Schneider, Friedrich, Andreas Buehn, and Claudio E. Montenegro. 2010. (World Bank Policy Research Working Paper 5356.) *Shadow Economies All Over the World: New Estimates for 162 Countries from 1999 to 2007*. Table 3.3.2: Ranking of 98 Developing Countries According to the Size of the Shadow Economy. Available at http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2010/10/14/000158349_20101014160704/Rendered/PDF/WPS5356.pdf.
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for a technical explanation and evaluation of Friedman's theory of consumption, see: Hall, Robert E. 1978. "Stochastic Implications of the Life Cycle-Permanent Income Hypothesis: Theory and Evidence." *Journal of Political Economy*, 86(6): 971-987. Available at http://www.victoria.ac.nz/staff/martin_berka/teaching/Econ413/Hall1978.pdf.

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- 33 Please note that two sources of information are used for the consumption data in Figure 4 and similar charts. For the years 1969 through to 1996, the Family Expenditure in Canada Survey (FAMEX) was used. FAMEX was replaced with the Survey of Household Spending, which was used for the years after 1996.
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- 35 Complete information for this figure is available in appendix 1, including measures of both pre-tax and after-tax income as well as quintile and Gini coefficient measures of inequality.
- 36 A different way to think about the changes in value for inequality measures is the ratio of the adjusted figure for adult equivalencies compared to the unadjusted figure. For both income (after-tax) and consumption, the adult equivalencies adjustment represents roughly 70 percent of the unadjusted figure. The specific range is 69.3 percent to 73.5 percent for income (after tax) and between 66.6 percent and 70.0 percent for consumption.
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- 39 See www.transparency.org for information on Transparency International.
- 40 Transparency International. 2011. *Corruptions Perception Index 2011*. Study is available at the main portal page of Transparency International (<http://cpi.transparency.org/cpi2011/>) which also includes a video summarizing the index and the effects of corruption. It also includes an interactive world map with information for each country: <http://cpi.transparency.org/cpi2011/results/>.
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- 46 For information on Statistics Canada's Low Income Cut Off (LICO) see <http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=13-551-XIB&lang=eng>.
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- 53 Please note that these statistics relate to total federal taxes in the United States, which includes personal income taxes, payroll taxes, corporate income taxes, and estate taxes. The discussion in the United States often relates to the burden of personal income taxes exclusively, which ignores the distribution of other federal taxes.

APPENDIX 1 Tracking Inequality in Canada: 1969-2008

Household Income and Consumption

		Gini			Quintile ratio			Decile ratio		
Year	File	Income Before Tax	Income After Tax	Consumption	Income Before Tax	Income After Tax	Consumption	Income Before Tax	Income After Tax	Consumption
1969	Famex	0.3481	0.3216	0.2971	7.57	6.39	5.25	13.68	11.16	8.42
1978	Famex	0.3305	0.3043	0.2908	6.64	5.50	4.99	10.94	8.87	7.72
1982	Famex	0.3466	0.3169	0.2951	7.07	5.75	5.05	11.58	9.10	7.72
1986	Famex	0.3696	0.3370	0.3147	7.62	6.16	5.48	12.31	9.67	8.35
1992	Famex	0.3694	0.3258	0.3102	7.61	6.04	5.13	12.46	9.56	7.59
1996	Famex	0.3963	0.3527	0.3190	8.47	6.79	5.23	14.35	11.37	7.98
1998	SHS	0.3873	0.3606	0.3244	9.32	7.33	5.73	13.62	12.75	8.92
2000	SHS	0.4159	0.3777	0.3328	9.85	7.77	5.93	18.17	14.06	9.30
2002	SHS	0.4067	0.3659	0.3238	9.43	7.63	6.02	17.04	13.56	9.47
2004	SHS	0.4016	0.3739	0.3492	10.04	8.14	6.11	18.77	14.88	9.72
2008	SHS	0.3929	0.3865	0.3241	9.84	7.86	5.94	18.01	13.75	9.54

Sources: Statistics Canada; Family Expenditure in Canada and Survey of Household Spending microdata files. Various years.

Note: Professor Chris Sarlo was contracted to update his analysis (2009) comparing inequality measures based on income and consumption.

APPENDIX 2 Tracking Inequality in Canada: 1969-2008

Adjusted Adult Equivalencies: Household Income and Consumption

Year	File	Gini			Quintile ratio			Decile ratio		
		Income Before Tax	Income After Tax	Consumption	Income Before Tax	Income After Tax	Consumption	Income Before Tax	Income After Tax	Consumption
1969	Famex	0.3317	0.3009	0.2662	6.03	5.01	3.99	9.62	7.77	5.74
1978	Famex	0.3071	0.2765	0.2543	5.28	4.34	3.81	7.86	6.32	5.36
1982	Famex	0.3207	0.2880	0.2594	5.62	4.52	3.86	8.43	6.60	5.42
1986	Famex	0.3266	0.2927	0.2657	5.74	4.59	3.97	8.76	6.83	5.56
1992	Famex	0.3385	0.2894	0.2627	5.90	4.61	3.84	9.03	6.88	5.31
1996	Famex	0.3507	0.3160	0.2718	6.55	5.15	3.89	10.69	8.33	5.51
1998	SHS	0.3688	0.3227	0.2780	7.15	5.53	4.24	12.39	9.37	6.24
2000	SHS	0.3695	0.3262	0.2853	7.37	5.70	4.35	12.94	9.75	6.43
2002	SHS	0.3593	0.3192	0.2891	6.96	5.52	4.38	12.04	9.41	6.45
2004	SHS	0.3650	0.3285	0.2910	7.41	5.91	4.45	13.31	10.43	6.61
2008	SHS	0.3740	0.3288	0.2813	7.22	5.70	4.36	12.25	9.33	6.52

Sources: Statistics Canada, Family Expenditure in Canada and Survey of Household Spending microdata files, various years.

Note: Professor Chris Sarlo was contracted to update his analysis (2009) comparing inequality measures based on income and consumption.



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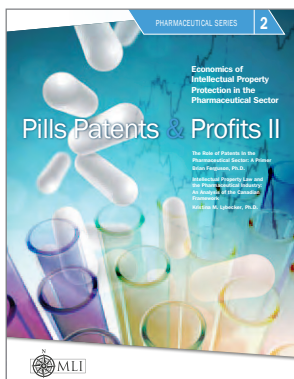
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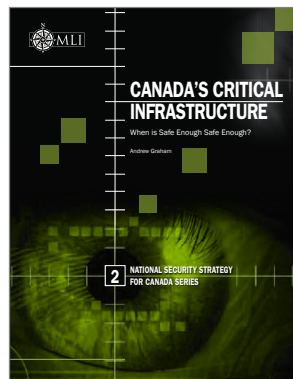
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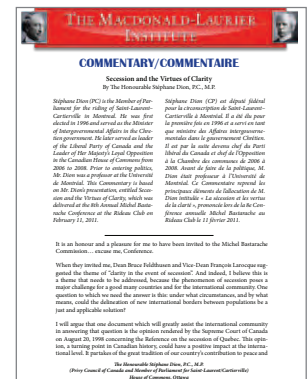
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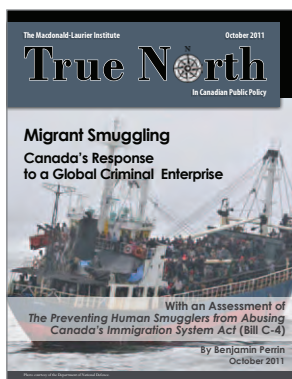
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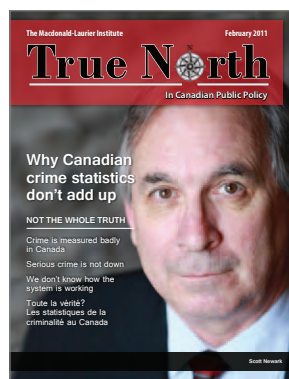
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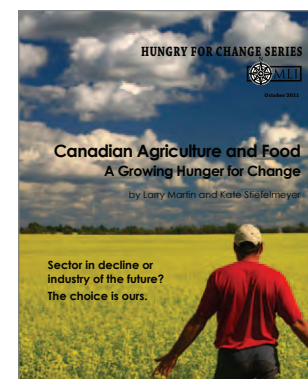
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