

**Data, Language and Policy**  
**Working Paper No. 3**

**Informetrica Limited**  
**August 2009**

Richard Shillington

Michelle Lasota

Mike McCracken: Reviewer

## Table of Contents

1	Objectives .....	1
2	Policy and Language .....	1
2.1	Confusion over Definitions: .....	2
2.2	Confusion over the Use of Statistics: .....	2
3	How to Make Sense of Economic Information.....	4
3.1	Working Poor.....	<b>Error! Bookmark not defined.</b>
3.1.1	Best Practice: .....	<b>Error! Bookmark not defined.</b>
3.2	The Measurement of Unemployment .....	<b>Error! Bookmark not defined.</b>
3.2.1	Best Practice .....	<b>Error! Bookmark not defined.</b>
3.3	Economic Growth .....	<b>Error! Bookmark not defined.</b>
3.3.1	Best practices.....	<b>Error! Bookmark not defined.</b>
4	References .....	4

Working Papers provide a succinct discussion of specific issues that arise throughout the analytical process of poverty measurement. The Metcalf Foundation has funded the overall project.

The research was assisted immensely by the comments and suggestions of a sounding board (Nate Laurie, Brian Murphy, Bob Rainer, Sheila Regehr, Katharine Scott, Sherri Torjman and Armine Yalnizyan). Regardless, the opinions expressed are those of Informetrica Limited staff preparing the papers.

# Data, Language and Policy

## 1 Objectives

This review of how poverty is defined and measured is being conducted through a number of Working Papers. One related issue is addressed in this paper and concerns how economic concepts and data are used in policy research and the public discussion about that research.

This Working Paper concerns the use and misuse of data and provides some suggestions for how this practice can be improved.

## 2 Policy and Language

Policy is discussed, considered, frequently in a political environment, and often data are used in such discussions to support one's point of view. It is a natural observation that individuals prefer data that supports their political outlook.

Without accepted definitions nor a means to enforce fairness in the use of data and terms, there are many opportunities for the selective use of data and terms. The problem, which undermines a clear, transparent and factual discussion of poverty, affects many public policy discussions. Where there is no agreed-upon definitions or standards for presentation (adjustment), there is maximum freedom for political consideration to dominate how data are presented.

Policy research may be primarily an exercise in data analysis, but, before information can be collected, quantitative measures are needed for the policy question being considered. The problem of competing claims about the "data" in policy discussions is not unique to the "poverty" discussion (the main subject of this report). This section discusses the broader problem of how language and data are used in political and policy debates.

The policy discussion about poverty is no different; the discussion is most productive when participants have a common understanding of data and economic terms, or, at least, understand the meaning of terms and data as used by various participants.

The language used in policy and political discussions is not always clear and sometimes this is because clarity is not desired. George Orwell wrote a famous essay in 1946 "Politics and the English Language" deploring the state of language use in the political sphere and traces the root cause to a desire in political discourse for obscurity and obfuscation.<sup>1</sup>

In the fields of economics, data are not always measured in the same way. So, while there is a consensus on how to measure GDP, employment and the labour force, there is still room for

---

<sup>1</sup> Orwell G. (1946): "Politics and the English Language" first published: Horizon Vol. 13 No. 76, GB, London, April 1946.

variations. For example, Statistics Canada has one official unemployment rate but calculates and publishes several variants.

Broadly, there are two sources of confusion about how data are used in public policy discourse. Below we will discuss confusion over definitions (poverty is a prime example) and confusion as well as how data are used.

After this is done, the subsequent sections will discuss a few prime examples of confusion in definitions, examples of which abound:

## 2.1 Confusion over Definitions:

- Being unemployed as per the Labour Force Survey (not working and having searched in the last week) is not the same as collecting unemployment insurance (for which you may or not be unemployed).
- What must governments do to end the “clawback” of the Child Tax Benefit? Ensure that welfare families benefit from increases to the Child Tax Benefit (this would require some agreement over the time period, only contemporary increases to the Child Tax Benefit, or including past increases back to 1997). Or, end the in-and-out nature of the Child Tax Benefit Supplement, whereby any funds received from this benefit are often offset (it varies by province) by dollar-for-dollar reductions in welfare benefits.

## 2.2 Confusion over the Use of Statistics:

- *Percentage change or change in percentage points.* When a figure like the poverty rate increases from 20% say to 22%; some commentators will report a 10% increase; others an increase of two percentage points. Both reports are accurate, but few readers will understand the differences and their meaning. Some policy commentators, bureaucrats, politicians, researchers and advocates will use this confusion to their advantage – often they are not interested in clarity.
- **Ratios.** Ratios can be averaged two ways; ratio of averages versus the averages of ratios. One can report an average income tax rate as the average income tax divided by the average income, or, equivalently, the total taxes divided by the total income. When the microdata are available, the ratio of income taxes to income can be averaged across individuals (or families). These two values can be quite different.
- The impact of a tax change can be presented in dollar terms, dollars as a per cent of income, or dollars as a per cent of the previous tax burden, using individuals or family accounting units. These options can convey very different pictures about whether a tax change is progressive or regressive. With these options for data presentation the following statements could all be made about a tax change (the data are hypothetical); the average value of the tax cut for lower-income Canadians is \$100; is 1% of income; is 50% of their previous tax burden.

- Changes in government spending can be presented as increases in dollar terms, dollars per capita or constant dollars per capita, or as a per cent of government spending or as a per cent of GDP. These are all possible, as well sometimes governments will report the change in spending compared to what it would have been otherwise. So for example, 2008 spending could be compared to 2007 or the 2008 spending that was in the last budget.
- To illustrate, consider a discussion about the change in government spending for a program (say, education). As long as there is population growth and inflation, it is easy for governments to claim their spending is at an all-time high. Serious researchers, though, might wish to consider the change in spending after some adjustments are made. One needs to ensure that the spending has been adjusted for any shifts between government departments or levels of government responsible for the spending. More meaningful perhaps would be government spending adjusted for:
  - Population growth;
  - Changes in the age-sex distribution;
  - Price changes.

The distinctions, policy implications and assumptions implicit in the various measures are well known to technical experts, and some politicians. Most journalists are not able to understand the nuances in the day or two usually available to them to write an article about a topical policy question.

Clearly it is possible to make accurate statements, truthful in a narrow sense, that are likely, perhaps even intended, to mislead.

One might note that the accounting profession has standardized how concepts such as profit and assets, liabilities and depreciation are to be determined and reported. There is a set of standard accounting procedures. Similarly, in advertising, misrepresentations are not condoned, even when they are accurate.

Obviously, these guidelines for the reporting of information in accounting and advertising are imperfect and have not eliminated fraud or misrepresentations but they have at least described a standard to which people are expected to adhere.

There are no guidelines for the reporting of research by governments, or independent researchers.

The issue of poverty reduction is receiving some attention from several provinces. The provinces then feel the need to accept some measure of poverty for measuring the progress from the policy initiatives. The policy discussion concerning poverty would likely benefit from some agreement on how it should be measured. This requires some consensus about the meaning of poverty.

Clarity is advanced when there is some agreement on how to measure things. For this reason some improved consensus on how poverty is measured would be welcome, and would contribute to a more transparent discussion of social policy and social progress.

### 3 How to Make Sense of Economic Information

The citizen who wishes to be informed about current events, policy and uses the media, newspapers, radio and T.V. and increasingly the internet for this purpose will often have difficulties interpreting research as reported.

What passes for research can cover a wide range of methods, such as:

- A sample survey of opinions. If used, one needs to be careful about how the population was sampled, was it selected to be representative, was the sample large enough to be reliable; was the questionnaire designed to elicit reliable and valid responses?
- A sample survey, but is sample size sufficient for reliable data? Most listeners do not understand phrases like “This survey is considered accurate within x % points, 19 times out of 20, what is that based on?” As well, often the problems with survey are not with sample size but with bias and respondents not understand the questions.
- A study could be a reworking of public information using a model.
- An interpretation of statistical and economic information. Does the research or the new item give space to the alternative methods for interpreting the data?

This report will illustrate the problems of economic and social policy measurement using indicators with some examples of working poor, unemployment and economic growth.

### 4 References

**Fortin M. (2008):** *How (Un)Healthy Are Poor Working-Age Canadians?* Policy Options Institute For Research On Public Policy, September 2008

**Fleury A. and Fortin M. (2006):** *When Working is not enough to Escape Poverty: An Analysis of Canada's Working Poor* Policy Research Group; Human Resources and Social Development Canada, SP-630-06-06E, August 2006

**HRSDC (2006):** *Low Income in Canada: 2000-2002-Using the Market Basket Measure* Human Resources and Social Development Canada, SP-628-05-06E, Government of Canada; June 2006

**HRSDC (2007):** *The role of family and government financial supports in helping Canadian workers avoid poverty* Myriam Fortin, Human Resources and Social Development Canada, SP-678-04-07E, October 2007

**Opportunities Waterloo Region (2008):** “*Working Poor:*”

<[http://www.owr.ca/workingpoor.htm#Opportunities\\_Waterloo\\_Region\\_](http://www.owr.ca/workingpoor.htm#Opportunities_Waterloo_Region_)> Accessed 2 Nov 2008

**Orwell G. (1946):** “Politics and the English Language” first published: *Horizon* Vol. 13 No. 76, GB, London, April 1946, 252-265.

**Statistics Canada (2008a):** *Methodology of the Canadian Labour Force Survey* Statistics Canada Catalogue no. 71-526-X, June 2008

**Statistics Canada (2008b):** *Labour Force Information – October 12 to 18, 2008* Statistics Canada Catalogue no. 71-001-X

**Statistics Canada (2008c):** *Labour Force Historical Review: 2007* Statistics Canada Catalogue no. 71F0004XCB