

# **Harnessing the Numbers: Potential Use of Gender Equality Indicators for the Performance, Measurement and Promotion of Gender-Based Analysis of Public Policy**

Background paper

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## Introduction

In *Setting the Stage for the Next Century: The Federal Plan for Gender Equality*, the Government of Canada committed itself to “ensuring that all future legislation and policies include, where appropriate, an analysis of the potential for different impacts on women and men” and to “the development of indicators to assess progress made toward gender equality” (Status of Women Canada 1995).

In 1997, the Federal-Provincial/Territorial Ministers Responsible for the Status of Women released *Economic Gender Equality Indicators*. This paper discusses ideas on how those indicators can be used for gender-based analysis in public policy-making.

These indicators did not appear out of nowhere. They emerge from the context of the social indicators movement, criticisms of statistics and indicators from a gender perspective, from the pioneering work on gender indicators and gender analysis in the international development field, and from the need for tools to take gender into account when developing policy.

The effort to “humanize” economic indicators is a response to the fact that the GDP and interest rates do not tell the full story about people's lives and realities. In fact, in 1993, when the American economy grew by 3.1%, social indicators<sup>1</sup> declined in the same year by 1.9% (Miringoff et al. 1996) By the same token, an upswing in the traditional economic indicators cannot necessarily be equated with better opportunities for women.

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The development of gender equality indicators rests on a history decades-long of dissatisfaction with traditional measures in portraying the realities of women. Oakley and Oakley (1979) and others criticised the gender bias in official statistics, in the areas chosen for statistical analysis, concepts employed to organize the statistics, the collection and processing of data, and the presentation of the statistics. Marilyn Waring (1988) challenged our ideas of economic value when she attacked the United Nations System of National Accounts for not including women's unpaid work, and counting environmental degradation as measures of value and production.

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<sup>1</sup> Social indicators characterized by the rising number of children in poverty, rates of child abuse and teen suicide, serious crime, access to health care, access to affordable housing and a growing gap between rich and poor.

Gender indicators have long been used in the international development field. The Canadian International Development Agency (CIDA) develops gender sensitive indicators as a key feature of results-based management, to measure the effectiveness of the Women in Development and Gender Equity Policy at the program and project level (CIDA 1996).

The United Nations Development Programme's Gender Development Index (GDI) takes the UNDP's standard Human Development Index (HDI) measures of life expectancy, educational attainment and income, and compares women and men for each of these measures for each country. As well, the UN uses gender differences in income, professional, technical, managerial and administrative jobs, and percentage of parliamentary seats held by women and men to calculate its Gender Empowerment Measure (GEM) for each country (UNDP, 1995). Young et al. (1994) developed 21 gender inequality indicators based on the United Nations Women's Statistics and Indicators (WISTAT). The Commonwealth Secretariat is developing a Gender Management System Handbook and Resource Kit which will include information on gender-sensitive indicators for gender mainstreaming within government departments (Commonwealth Secretariat 1997).

Canada has made its contribution to this field of gender indicators with the *Economic Gender Equality Indicators* released in 1997. In this paper, the three primary potential applications of these indicators will be explored:

- As an **input**: using the indicators to inform gender-based analysis;
- As a **results** measure: using the indicators to measure the success of gender-based analysis;
- To raise **awareness**: using the indicators as a tool to sensitize policy-makers and the public to the gender gap in order to promote the need for gender-based analysis.

## Definitions

**Gender-based analysis** “takes into account social and economic differences between women and men at every stage of policy development to ensure that:

- the potential differential impacts of policies, programs and legislation on women and men are discovered, and
- existing and proposed policies have intended and equitable results for women and men, boys and girls.” (Morris 1997a)

“An **indicator** is normally defined as summarising a large amount of information in a single figure in such a way as to give an indication of change over time.” (CIDA 1996)

A **social indicator** is a “statistical series, and all other forms of evidence...that enable us to assess where we stand and are going with respect to values and goals...” (Bauer 1966) “Social indicators...illuminate trends, comparative dissimilarities and patterns of inequality.” (Vogel 1997) The unemployment rate is considered a social indicator. The economic gender equality indicators are social indicators, in that they measure progress over time toward the goal of gender equality, and highlight disparities and inequality between women and men.

For the purposes of this paper, **results-based indicators** will refer to indicators which measure the performance of broad policy goals, whereas **outcome indicators** will refer to measuring the performance of a specific program.

Although the economic gender equality indicators are not project-oriented and are useful primarily in developing, measuring and raising awareness of broader policies and potential policies, I have found the long-standing work on gender indicators in the international development field of particular interest and value, and will draw on this excellent work.

## Issues and Questions

### Input

The economic gender equality indicators can inform gender-based analysis, that is, can be used in the development of policies, programs and legislation which take into account their potential impact on women and men. The following are questions to consider:

- How can the gender equality indicators best inform gender-based analysis?

### Providing Information

The indicators provide background data for Canada on women's and men's paid work, unpaid work, total workload, paid and unpaid work patterns by household type, total income, after-tax income, total earnings, university degrees granted, training participation, training hours, and occupational return on education. In addition, most of the data are also provided by province and territory.

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### *Establishing Goals and Priorities*

One can use the indicators as a departure point for policy, for example, choosing an index which shows a high degree of inequality, and concentrate policy efforts in that area.

### *Identifying Problems*

**Indicators can serve as an “early warning system” of a widening inequality gap which may otherwise go unnoticed.**

Some issues emerge from the indicators that are not the focus of current policy, such as the fact that the proportion of women receiving degrees in female-dominated fields is actually increasing, which may suggest men are not entering these fields. In this sense, the indicators can serve as an “early warning system” of a widening inequality gap which may otherwise go unnoticed.

### *Anticipating Effects*

The indicators can be used as a focus for thinking ahead to the policy result or program outcome. One can think about whether a policy might have an impact on any of the gender equality indices. The drawback is that a program that is not broad-based or a policy for a certain target group may not affect any index because of the sheer small numbers of people involved, even though the policy or program may make a great difference in the lives of hundreds of women and their families.

### *Shaping Solutions*

Recognizing women's unpaid workload, for example, may be helpful in developing, strengthening or prioritizing measures such as a caregiver tax credit, home care and respite care.

### *Building it Into the Evaluation Process*

Relevant economic gender equality indicators can be built into proposed government policies, programs and legislation as one of the evaluation measures.

- Can economic gender equality indicators be used as stand-alone tools, or what other tools and resources does one need to perform gender-based analysis?

As a stand-alone tool, the economic gender equality indicators tell you what is going on in certain selected areas of study, but they do not in themselves tell you why. A user of the indicators still needs the background knowledge of gender and public policy in order to understand and interpret the indicators. They are not a “quick fix”.

The appropriate use of the indicators in gender-based analysis is alongside other qualitative and quantitative data to form a full picture of women and men's economic situation.

- Can the indicators be used for simulation models, i.e. for running through proposed policies to gauge their impact on women and men?

Economic simulation models are often used in policy-making, particularly for proposed tax and financial policies. Gender can be incorporated into these models, depending on whether the data being used is disaggregated by gender, and we can see whether women or men “win” or “lose” in a policy.

For example, a gender impact analysis of Employment Insurance legislation found that the revamped program would result in women's total insurance benefits decreasing by 7% and men's by 10% by 2001-02 (HRDC 1996). These data do not tell us anything about the relative context of men and women to begin with. This is where economic gender equality indicators can be useful. For each simulation, we can also add as a factor what effect the policy might have on the relevant indicators, in this case perhaps the total income indicator. Another example is, would a child tax benefit increase affect the after-tax income disparity between men and women? It goes beyond a simple analysis of who will benefit most from a particular policy, to measure in advance the kind of impact it might have on bringing women and men in Canada toward economic equality.

- What are the limitations of the indicators for use in gender-based analysis?

### *Lack of Familiarity*

We are all acquainted with certain indicators, such as the GDP and the unemployment rate. The introduction of a new set of indicators, especially complex ones, may lead to some initial confusion as to what they mean and how to use them. For example, take the index of females to males in female-dominated occupations (F-P/T Ministers 1997: 38). We can see from the indicator that the proportion of women to men in female-dominated occupations has increased, but does this tell us fewer men are going into these occupations, or even more women are entering these fields? Of the women who are entering these fields, have they considered entering male-dominated or neutral occupations but have instead chosen female-dominated ones, or are they women who would once not have planned on a “professional” career at all, but rather remained sales clerks,

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secretaries or homemakers? Therefore, is the increase in the proportion of women in these fields a positive or negative sign? And what can we do with this information?

One cardinal rule is that “Indicators should be easy to use and understand.” (CIDA 1996) If they are not, special efforts may be necessary to explain them.

### *Predefined Priorities*

If economic gender equality indicators are used as a starting point, rather than as one of many inputs, this may result in gearing policies toward affecting the indicators. A potential problem with this is that there may be gaps in the indicators, and the structural goals of the indicators may not be what women and men want, nor what is needed.

### *Missing Information*

Most of these indices can be used as a starting point, but must be supplemented with other information in order to form a complete picture. The Training Participation Index, for example, does not examine need or context. Other information is also necessary, such as the quality or type of training. For the purposes of the index, a two-hour computer course to learn the basics of Microsoft Word may be given the same status as one year's paid academic leave to do an MBA. Even the Training Time Index, which compares the number of hours spent in training by women relative to men does not take into account the quality or type of training, nor the issue of who may need the most training, an issue that will be referred to again later in the paper. That is not to say the indices are not valuable. It is to say that anyone wanting to examine the training issue in further detail will need additional information.

### *Results*

There is increasing interest by governments to use indicators to measure their performance. These are not necessarily indicators that are tied to a specific program, such as how many clients in a certain training program went on to get jobs. They begin with targets in areas such as teen pregnancy, unemployment, pollution levels in the air or water, and then structure policy to affect those indicators in the desired directions.

The City of Jacksonville, Florida has developed comprehensive indicators touching on education, economy, public safety, natural environment, health, the social environment, government and politics, culture and



recreation and mobility, with 140 people on nine task forces, one for each set of indicators. They use a gold star and red flag system to mark improvements and dangerous trends (Andrews 1996).

This has led to action taken in areas in which the indicators fall short of the target. For example, a too-high pollution indicator for the local river prompted a push to clean the river, involving the creation of a water quality committee and a telephone hotline to report contamination. One indicator raised public awareness about an unsatisfactory school drop-out rate, which led to a new program credited with improving the retention rate in selected schools (Andrews 1996). In essence, unsatisfactory indicators are taken as unsatisfactory current government and community responses, and action is taken to improve policy and programs in the target area.

Other examples of jurisdictions using indicators in a similar manner are Oregon, Minnesota, the Sustainable Seattle project and Upper Valley 2001 in the Upper Connecticut River Valley. In Canada, the Government of Alberta releases annual performance reports with broad targets such as striving to be the province with the lowest percentage of people reporting a fair or poor health status (Alberta 1997). Many social indicators are released at various levels in Canada, but are not necessarily accompanied by clear targets and plans to improve those indicators.

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- Can the economic gender equality indicators be used as an accountability measure for gender-based analysis performed by governments, or are there variables other than government programming that might affect the rise or fall in the indicators?

The economic gender equality indicators are different in character from one another, ranging from broad policy areas such as the performance of unpaid work, to narrower areas such as training hours. These may encompass in the latter case a combination of government programs, policies and independent private sector initiatives. Government can encourage the private sector to provide more training, provide resources and incentives, or even require the private sector to provide some training. In the case of unpaid work there are factors that are clearly out of government's control. Government can raise awareness about male responsibility for unpaid work and can facilitate through policies (such as encouraging men to take parental leave, portraying men and women in non-stereotyped roles in school curricula), but ultimately cannot force men to perform more unpaid work. Ideology, stereotypes and upbringing play a powerful role that government can chip away at, but that ultimately may prevail for generations to come.

**However, these measures can be used as progress and accountability indicators on gender equality issues for governments and society as a whole, and as a basis for thinking about what action can be taken to reduce gender inequality.**

Factors that might affect the three work indices are boom and bust cycles in which jobs are more available or more scarce, the collapse of or upturn in industries in which men or women predominate, the trend toward in-home care of seniors, sick or disabled dependents, accessibility and affordability of child care, the cost of living which might push some women and men to take on several jobs to make ends meet, availability of after-school programs and recreational facilities for children, etc. Some of these areas touch on the policies and programming of different levels of government, and some of these factors are tied to the global economy and not under the direct control of any government. Should the Total Workload Index widen, this cannot be confidently ascribed to the policies or programs (or lack thereof) of any one government, although one can reasonably speculate on why there has been a change in the index. One cannot say, for example, that “the Total Workload Index has widened, therefore this means the federal government has failed to implement gender-based analysis.” However, these measures can be used as progress and accountability indicators on gender equality issues for governments and society as a whole, and as a basis for thinking about what action can be taken to reduce gender inequality.

- The success of what types of policies could best lend themselves to measurement through gender equality indicators?

We would have to ask ourselves what specific federal and/or provincial/territorial policies might reduce the gender gap in the areas covered by the indicators. The following is not a comprehensive list, but constitute a few examples:

- The Total Income Index may be affected by family benefits policies, child support enforcement measures and pension benefits and policies.
- The Total After-Tax Income Index may be affected by tax measures.
- The Total Earnings Index may be effected by pay equity, affirmative action and other workplace equality measures.
- The Total Workload Index, Paid and Unpaid Work Indexes may be affected by home care programs, early retirement plans, child care services, cuts in health and social services and eventually by gender equality sensitization in schools. Bakker (1994) would argue that economic restructuring and monetary policy affect the gendered division of work.
- The University Degrees Granted Indexes which tracks degrees granted to women and men in fields of study that are female-dominated, gender-neutral or male-dominated may be affected by

scholarship programs for women or men to enter fields of study dominated by the other sex, and initiatives in elementary and secondary schools against occupational stereotyping.

- The Training Participation and Training Time Indexes may be affected by targets of government training programs or incentives to business to provide training to an equal proportion of women and men.
- The Occupational Return on Education Index may be affected by mentorship and recruitment programs in high status occupations.

Many other initiatives and factors may have an indirect impact on various indices, such as portrayal of women and men in the media.

- Is a perfect “1.0” desirable as a target?

The structure of the index, “1.0” being a measure of complete equality between men and women, implies a value judgement that 1.0 is the goal. Certainly, economic inequality has personal consequences for women and children, and implications for tax spending.

But should 1.0 be the goal for all the indices? For example, is it the goal for each of the two training indices that women and men receive an equal number of training hours? What if women need more training? If the index is above 1.0, is this a problem? What if men need more training? Do male-dominated occupations, such as forklift operator, engineer or systems analyst require more training? Educational studies have shown differences in boys' and girls' abilities to learn. Men may or may not be “slower learners” than women. Or more training might be needed for women than for men to move them into higher status occupations. The goal is not necessarily men and women getting the same number of hours of training, it is men and women getting the training they need.

The problem in assuming that 1.0 is the goal is the underlying assumption that women should be exactly like men. It leaves no option for creative solutions and ways of looking at the issue. For example, the goal for some homemakers' organizations may be for the Total Income Index to register 1.0, showing perfect economic equality between women and men, but the Paid and Unpaid Work Indexes remaining the same, showing men do more paid work and women more unpaid work. They could advocate that the difference in income be made up through policy initiatives such as income and asset-splitting and other measures to redistribute income.

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A related consideration is whether women want to perform less unpaid work and if men want to do more. The answer may be yes. Or do women

want to be paid or otherwise valued for this unpaid work or receive pension, tax or matrimonial property benefits for it? These are questions the indicators cannot answer, questions that have an impact on policy options and the acceptance of those options by Canadians. The answer may involve a combination of the above, with some women wanting to achieve financial security and independence through routes not necessarily identical to men's, which would require some creative policy solutions, and others who would be more than happy to turn in their vacuum cleaners for bigger paycheques and real workplace opportunities.

- Can the indicators be used for provincial/territorial comparison, or are there other factors that need to be taken into consideration?

Economic factors may affect one or several provinces and territories, but not others. However, something like training could be affected by government programming, and could alert other provinces or territories to a success story that might otherwise go unnoticed. To be confident that the training figures are being affected by certain programs or initiatives, outcome indicators for these specific programs or initiatives would be necessary to confirm their success. As well, high inequality figures may alert some jurisdictions to problems.

#### Awareness

**“The 1995 UNDP *Human Development Report* makes...statements about the need to bring gender-sensitive indicators to the attention of policy-makers as a first step towards changing policies biased against women. Here gender-sensitive indicators are not ends in themselves but a political tool to be used to challenge the status quo.”**

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- How can the indicators be used to sensitize policy-makers and the public on gender issues, and the need to perform gender-based analysis?

The income indices together tell a story of how women rely on transfer payments and tax measures to bring them a small step closer to economic equality (F-P/T Ministers 1997: 18). This can be an important tool for those interested in gender equality both in and outside of government for example to argue in favour of preserving and enhancing these transfers and progressive tax measures. It is a matter of publicizing the indicators and holding special briefing sessions for policy-makers and NGOs to explain the indicators and how they can be used.

The indicators have already received some attention, for example in a recent *Globe and Mail* article which reported that if all working-age

women and men are included, women earn \$.52 to every dollar made by a man, rather than the traditional \$.73 figure which compares women and men in full-year, full-time work (Matas 1998). The article highlighted the controversy about measuring unpaid work and the realities of women, and paraphrased one official as saying that women could achieve economic equality in one generation if they stopped having children and replicated the work patterns of men, but the equality would last only one generation, and then there would be no people. The indicators have the potential to continue to provoke thought and debate about gender inequality in work patterns.

However, Janine Brodie argues that it is a mistake to think that simply pointing out the gendered nature of economy and economic policy concepts will in itself lead to gender-sensitive policy (Bakker 1994). Ideally, the indicators should be associated with the need for gender-based analysis of public policy and with strategies for action.

- Is it as important to reach out to the public as it is to reach out to policy-makers?

“The only social indicator that appears to be at all familiar to the general public is the unemployment rate...” (Vogel 1997). Vogel argues that in a representative democracy, it is important for the public to have access to the information provided by indicators. Miringoff et al. (1996) confirm this view:

If exports are strong, dividends high, interest rates low, inflation stable, and the GDP and stock market rising, we generally assume this country is on the right track.... Social data...are rarely presented and assessed as a unified body of statistics serving notice of significant improvement or decline. Such information is particularly needed during a[n]...election year when voters require a rational basis to judge where we are as a nation and in which direction we should be moving.

We know that 72% of Canadians believe gender equality is very important, and only 5% believe it is not important (Sullivan and Chalmers 1995). Public support may be necessary to motivate some decision-makers and to move the issue of gender equality and gender-based analysis of public policy higher up on the list of priorities.

- Is there a possibility of resistance to using gender equality indicators as a measure of equality for gender-based analysis?

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General areas of possible resistance include:

- *No buy-in* – What happens if the Canadian public or policy-makers do not agree with the measure of 1.0 as an indicator of success and gender equality, or criticize the indicators? In writing about indicators of social progress, Ross (1996a) commented:

Too often the only response one gets to such social statistics is to be told that they are not reliable measures anyway. Criticisms are trotted out: The data are poor, the stats gatherers are biased, the concepts are inadequate.... Certainly no one in authority starts shifting policy levers when these statistics are reported.

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- *Not able to understand the indicators or how to use them:* If policy-makers and NGOs alike find the indicators confusing, they may not use them. An investment may be needed in explaining and popularizing the indicators.
- *Relevance of the indicators to the work of public policy analysts and to the lives of Canadians:* Most of the indicators provide a “big picture”, which individual public policy analysts working on some aspect of legislation, programs or policy may not see as relevant to their work. The movement to develop community-based social indicators in the US, with full public participation in choosing and prioritizing indicators, may lead to a sustained interest in the indicators and their progress by the public.
- *Lack of agreement on the path toward equality:* Even if one agrees with 1.0 as a measure of equality, understands the indicators and believes them to be relevant, differences in opinion may still arise about how to proceed. Acknowledging a problem may not always point to one type of solution. For example, the government response to the Oregon benchmark for poverty was the establishment of a workfare program (Oregon Progress Board 1994), which is a different response to a high poverty figure than what most anti-poverty organizations would advocate. There is also a danger that current programs to promote equality will simply be listed as a response to criticisms about the gender gap, rather than a re-examination of policy.
- How should gender equality indicators be “packaged” in order to better promote their use?

One can begin by looking at successfully reported indicators, such as the UN's Human Development Index, the unemployment rate, inflation, and so on. Complex data go into calculating some of these indices and statistics, but they are usually reported in a single-figure, simple way that immediately means something to people. Similarly, the economic gender equality indicators could be presented with some fanfare as “closing (or widening) the gender gap”. As the indicators attract attention and growing credibility, more policy analysts and decision-makers will be aware of them and may go beyond the cursory reports to examine them in detail.

## Conclusion

...indicators do not change policy...and change is the goal. “An indicator is nothing more than a signal. After you get the signal you have to dig deeper to see what it really means,”....Only with an action plan, and action, is the indicator likely to move. (Andrews 1996, quoting Marian Chambers, former Executive Director of the Jacksonville Community Council, Jacksonville, Florida.)

- Developing an action plan to use gender equality indicators for gender-based analysis.

There are two types of action plans to discuss. One is a macro-plan, that is, how the Government of Canada and other participating governments can use the indicators to further gender-based analysis. Another is developing a micro-plan – how you as an individual can better use the indicators in the performance and promotion of gender-based analysis. These are a few ideas to consider, reject, adopt as goals to strive for, or simply to stimulate thinking:

- *Access:* Inform social groups and all policy analysts where they can access these indicators. Provide briefings for NGOs on the meaning and uses of the indicators. Provide some explanatory resources, such as a phone number or e-mail address for answers to questions.
- *Practice:* Ensure the economic gender equality indicators form a part of gender-based analysis training within government departments. Ask policy analysts to report how they have used these indicators in developing policy. Use the indicators in annual reports of gender-based analysis implementation within departments.
- *Publicity:* Release the indicators every year, three years or five years with great fanfare and publicity, perhaps on International Women's Day or International Human Rights Day. Run a media campaign.

- *Refinement:* Were the indicators to be refined at some point, ensure widespread public consultations encouraging all Canadians to think about these issues and put forward their priorities. One question that can be asked is, “Women and men will be equal when...” If goals and objectives for the indicators are based on these priorities, they can become a powerful tool not only to inform gender-based analysis, but to measure government and community progress toward gender equality goals that Canadians themselves have defined. Another avenue to pursue in refining the indicators is to ask public policy developers who currently do not use them what indicators would be meaningful to them in their work.

As many questions have been raised in this paper, the author saw fit to conclude with the most important one:

- How will **you** better use the economic gender equality indicators in gender-based analysis, and what elements do **you** think should go into a macro-level action plan for using these indicators?

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# **Social and Economic Indicators: Underlying Assumptions, Purposes, and Values**

Background paper

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## Introduction<sup>1</sup>

Over the past two decades, gender scholars have worked to highlight and understand the realities of women in social, economic and cultural life. Across a variety of disciplines, researchers continue to forge new theories, methodologies, and practices to advance women's equality and to provide insight into the complex processes at work in any society.

Governments have been involved in these efforts as well. The publication of *Economic Gender Equality Indicators* is a recent Canadian contribution to the public dialogue and policy development on gender equality. The goal of this new set of economic indicators is to “help raise public awareness of women's and men's realities, stimulate public policy discussion, encourage a search for explanations and responses, and monitor progress.” (Federal-Provincial/Territorial Ministers Responsible for the Status of Women 1997: 5.) The Symposium on Gender Equality Indicators was held to advance the discussion on gender indicator development raised in *Economic Gender Equality Indicators*.

This paper was developed for the symposium to explore the paradigms implicit in social and economic indicators in order to provide a broader context for discussing gender equality indicators. Our goal is to step back and question the assumptions and values that underlie the current social and economic indicator movement – including efforts to create gender equality indicators. In the first section we look at the emergence of indicators and the critiques that have been directed at them, both in general and in terms of gender issues. Next, we turn to several examples, starting with the long-lived economic measures from the National Accounts and Labour Force Survey. We then look at a recent effort, The Index of Social Health, which broadens the scope of measurement. We conclude the section with a look at several gender-specific indicators. The last section considers future directions for research and suggestions for improving the gender-sensitivity of indicator work.

**Our goal is to question the assumptions and values that underlie the current social and economic indicator movement.**

## The Development of Social and Economic Indicators

### Linking Knowledge and Public Policy

Indicators reflect or represent complex concepts or conditions. They are statistics or other forms of evidence which attempt to make sense of uncertainty or the unknown by extracting simple ideas out of complex

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<sup>1</sup> This report benefited from comments from Monica Townson, Jane Friesen, and other participants. Remaining errors and inconsistencies are those of the authors, particularly the old guy in the suit.



ones (Innes 1990: 291). Through their use, we attempt to better understand social and economic phenomena. Indeed, they have become a part of our daily lives. It would be almost impossible today to describe the state of our economy, for instance, without referring to the inflation rate (CPI), the Toronto Stock Exchange 300 Index, or the national unemployment rate.

As such, indicators have proven to be a potent tool in program and policy-making as decision-makers seek out evidence to define problems and potential solutions as well as to create common ground for discussion. Today, policy-makers and the public widely subscribe to the view that policy-making should be well informed, that is based on facts and analyses, rather than personal experience, anecdotes or purely political considerations. Indicators play an important role in this process.

**Indicators play an important role in program and policy making.**

Efforts to link knowledge to public policy vis-à-vis the use of indicators are certainly not new. The economic measures of the business cycle in the 1920s were important milestones, not only for the economics profession, but for public and private decision-makers. But the shock of a Depression, followed by the need for mobilization for a war showed how inadequate early measuring systems were.

In the United States, the creation of the National Income Division within the Department of Commerce in the late 1930s marked a significant juncture because it signaled government's commitment to the preparation and dissemination of estimates of national income and product (Block 1986: 771). The work in Canada on the National Accounts began before the end of the war, with publication in the 1945 White Paper on Employment and Income. The driving concern was the post-war reconstruction challenge of maintaining full employment and growing incomes (Statistics Canada 1975: 22).

Since that time, governments have continued to play a central role in the production of economic indicators that not only highlight economic trends, but define the way we understand economic progress.

Interest in social indicators by contrast sprung from demands to assess the well-being of citizens in areas such as health, education, and housing. While work on social indicators dates back to the nineteenth century, the social indicator movement really gained impetus in the 1960s and early 1970s when questions were increasingly being raised about the character of "progress" (Noll 1996). Initially, challenges to the idea that "economic growth equals social development" during the 1950s fueled interest in social indicators, and, in turn, lent support to the introduction of welfare state programs in Canada and elsewhere. At the same time, there was new

**Social indicators seen as key to crafting a more activist social policy.**

faith in more rational models of governing in government circles and the policy sciences. In the early 1970s, the Economic Council of Canada, for example, undertook to explore social indicators in order to broaden the discussion of goals, and proposed a set of indicators for health, housing, and the environment, as well as encouraging the development of the underlying databases (ECC 1974: 62-66). Against this backdrop, the development of social indicators was seen as key to crafting a more activist social policy. The measurement of such change was seen as an important part of government's role in society.

As the development of welfare states in the 1960s marshaled interest in social indicators, perhaps not surprisingly, there has been a resurgence of interest in social indicators in the 1990s as governments dismantle welfare programs. The sources of interest, however, are much different. We identify three here.

First, decision-makers are currently embracing “evidence-based” decision-making in an effort to redefine the role of the modern state. There is a new focus on “outcome” measures within government to understand how well existing policies and programs are meeting their stated objectives, and to determine what activities government should be pursuing in the future. In many cases, decision-makers do not have the information necessary to assess the success or failure of programs – particularly programs which attempt to achieve social goals such as greater equality – and are consequently sponsoring research into indicator development.

**Interest in indicators is linked to the changing relationship between citizen and state.**

The second source of interest in indicators is linked to the changing relationship between citizen and state. At a time when the public is increasingly skeptical about governments (Ekos, Rethinking Government Project), many citizen groups are demanding greater accountability from their public officials. These demands take many forms ranging from public accounting (i.e. value for money) to greater popular participation in setting the goals and limits of state activity (i.e. referenda laws). The celebrated Oregon Benchmarks project is a good example of renewed interest in social indicators within government and by the general public. This project was created with extensive public input to set out long-term social and economic goals for Oregon and to chart progress toward these goals (Oregon Progress Board 1996).

Last, but not least, the voluntary sector and various advocacy movements in Canada have also embraced social indicators as a means of monitoring social progress as governments at the federal and provincial level restructure welfare state programs (Shookner 1997). The concern has been to focus attention on the importance of social life in Canada and the

critical role governments have played in ensuring the well-being of all Canadians – in the form of universal health care, support for families, income replacement during economic recessions, and so forth. Progressive social groups point out that governments have conquered their deficits at the expense of low- and middle-income Canadians. They are using social indicators to make their case that investing in programs like the Child Tax Benefit or child care makes good economic and social sense both in the short term (lower rates/depth of child poverty) and in the long term (improved well-being and productivity of all citizens).

**Social indicators have been embraced as a means of monitoring social progress and in ensuring the well-being of all Canadians.**

These examples of social and economic indicators illustrate how indicators have been developed and used to support and critique public policy – not only by governments but by interest and advocacy groups as well. After almost a century of use, indicators remain powerful tools to describe the world around us.

### **Critiquing Indicators: General Assumptions**

The development of social and economic indicators – even the most recent examples which are detailed later in this paper – is based on a “positivist” conception of knowledge and knowledge use in policy, one that holds up knowledge based on facts as elaborated and verified by the methods of empirical sciences. This particular understanding of knowledge and its links to the policy process are summarized by Judith Innes.

This view assumes that policy-makers should use formal information, such as statistics or the findings of social science, to aid their decisions.... For this view of knowledge to apply, policy-makers must represent unitary interests and be able to make meaningful, deliberate choices. Their task is to choose options that are likely to achieve goals on the basis of criteria, evidence and logic.

What counts as knowledge use in the scientific model is explicit information processing, supportive of identifiable decisions. What counts as knowledge includes facts, statistics, theories, and findings for formal research and analysis. Experts who are unbiased and outside of a political process produce such knowledge ... The process of informing policy is therefore stepwise, with a division of labor where policy makers do the goal setting, experts do the analysis, and policy makers make decisions (Innes 1990: 3).

**The value of indicators resides in the notion that they are grounded in empirical reality.**

This predominant model of social and economic indicators rests on a few fundamental assumptions about what constitutes knowledge and its production. Inherent in the indicator project is the idea that one can *reduce* complex social and economic phenomena (empirical reality) to a single meaningful statement or stylized fact, that there is a *direct* correspondence between an indicator (i.e. unemployment rate) and an experience, event or condition. Indeed, the value of indicators – for policy making in this instance – resides precisely in the fact that they are ostensibly grounded in empirical reality, and *not* in knowledge derived from theory, intuition, or deduction. Indicators and other empirical tools are held up as *value-free* science.

The neutrality or objectivity of social and economic indicators is open to challenge on a number of fronts, three of which we discuss below.

### *Whose Reality Do Indicators Capture?*

**An indicator is a set of rules for gathering and organizing data so they can be assigned meaning. They are not neutral.**

As most would agree, an indicator is “a set of rules for gathering and organizing data so they can be assigned meaning” (Innes 1990: 5). Thus, every indicator starts with some view of how the world works or should work. This is reflected in the data used, the weighting, the time frame analyzed, and choices about method and disaggregation (regional, gender, age, etc.). An indicator highlights certain aspects of a situation at the expense of others, allowing observers to “see” the world through a particular lens, channeling thoughts and actions in particular directions.

In short, *indicators are not neutral statistical constructs*. They validate particular world views and prioritize selected areas of knowledge. The patina of objectivity is compounded if and when indicators are institutionalized. Usage over time tends to reify a particular understanding and measurement of an issue such as unemployment or productivity, making it into an objective reality rather than a social construction that privileges established interests and world views – in government, in business, or in academe.

For example, governments as well as scholars have historically expended a great deal of energy developing and monitoring economic indicators such as the GDP, debt ratios, productivity and the like. As a result of this activity, economic indicators have entered common parlance. They now shape the way we think about the economy. By comparison, relatively little attention has been paid to social indicators such as measures of inequality or the vitality of social networks in communities. These facets of social and economic life are arguably as important as the health of the

market economy, yet, because we don't systematically measure them, they are less visible, and, consequently, rendered less important – at least in the public eye.

Another common example of this type of bias in practice is the unemployment rate. Over the years, methods for defining and calculating the rate have changed as the popular and political understanding of unemployment has shifted. For example, certain classes of workers (i.e. female farm workers) were excluded in the past when calculating the unemployment rate. In this instance, women working on family farms were not considered “productive” workers because their work was understood as an extension of their domestic labour. Their reality was clearly not captured in the unemployment rate. More recently, this was changed.

Indeed, the notion of labour force participation is restricted to paid workers and self-employed and those actively seeking paid work. But people maintaining families, learning, taking care of family members who are ill or incapacitated are considered as “not in the labour force”. Statistics Canada is quite clear about the definitions. But the perception that work and employment are the same leads too often to the assumption that those not in the labour force are “at leisure” or not engaged in society. In most cases, this is far from the truth.

**Work and employment are not the same.**

### *What Types of Knowledge Do Indicators Reveal? How are Indicators Constructed?*

Just as indicators are informed by underlying assumptions and values – assumptions and values which belie their purported objectivity – they are also constrained by available methodologies and methods. As noted above, indicators attempt to reduce complex phenomena to simpler ideas or concepts, but the scope and breadth of indicators are always limited at any point in time by what is in fact measurable.

It is not surprising that indicator development is well established in the study of markets where market activity is measured in dollars. The Gross Domestic Product, for example, which estimates national income and product, is used habitually as an indicator of a country's economic activity. Recent critiques by Waring (1988) and others (Anderson 1991, Folbre 1994) have revealed the gender-biased assumptions about what constitutes economic activity that underlie the GDP. Feminist scholars have made progress in challenging national statistical agencies to account for women's work, much of which is unpaid, in the National Accounts. (See the section on feminist critiques of indicators below.)

**Indicator development is well established in the study of markets where activity is measured in dollars.**

**How do you measure the value of childcare, which is integral to the economic health of a society?**

Much of the battle, however, lies in the statistical conventions that govern the construction of the GDP, i.e. the definitions used in data collection, questionnaire design, and implementation issues. One of the reasons that economists have historically defined economic activity exclusively as paid market inputs and outputs is because these commodities share a common unit of value: money. How do you measure the value of child care which is integral to the economic health of a society? Current efforts are focused on estimating the cost of performing unpaid work in the market (replacement value) (Statistics Canada 1995a). The standard is still the market; existing accounting practices continue to constrain discussions about how to measure and value unpaid work.

The debate about the definition of the GDP is a well-known example of a fundamental problem inherent in the development of social and economic indicators. *Indicators measure what is readily measurable.* We know, for example, that crime rates have been going down the past few years in Canada. However, crime rates are based on crimes reported to police departments (which may or may not be systematically recorded). These rates do not capture criminal activity that goes unreported such as domestic violence (Canadian Centre for Justice Statistics 1997). Crime rates are, therefore, imperfect measures of criminal activity.

*Existing Measures Tend to Focus on Individual, Household or Firm Attributes or Outcomes. Is There More to be Measured?*

Social and economic indicators generally focus on individuals, households and firms as the unit of analysis. This orientation implicitly and explicitly holds up the individual as the origin of human activity, the driver of social and economic change.

There is of course great debate across many fields of study around the place of the individual in social and economic activity. In labour economics, for instance, “human capital models” maintain that individual progress in the labour market reflects the education, skills, and health of the person. The market instantly processes this information and ensures the appropriate match between person and job, and proper remuneration for the position. Alternately, “structuralist” explanations focus on institutional barriers such as occupational segregation within the labour market as the reason behind employment location and wage patterns.

Data readily exist to support research into the attributes of individual employees. Many of the large statistical surveys currently available, such as the Labour Force Survey, chart the attributes and outcomes of individual Canadians. It is more difficult to marshal evidence in support

of structuralist hypotheses, those that examine systemic discrimination, for instance, within the context of internal labour markets. Economists in these cases are often forced to turn away from mainstream liberal theoretical explanations and research methods (use of large secondary data sources suited to complex econometric analysis) to more qualitative techniques such as case studies or historical analysis – approaches which are not widely validated in the hard science of economics (MacDonald 1994).

**The information used to identify systemic discrimination is difficult to obtain.**

The individualistic bias evident in existing indicators and sources of quantitative data does have a profound impact on the kinds of analyses that are possible. Recording differences and similarities between men and women as groups, for example, as many of our indicators now do, takes us only so far. Information about the structure of relationships or networks, whether at the family level, the firm level, or the industry, country, or global level is increasingly emerging as a necessary dimension to capture if we are to understand market power, gender relationships or the transmission of new ideas.

Scholars are pushing the envelope, adapting existing indicators and methods to explore precisely these types of questions. It may be that our existing stock of social and economic indicators is not up to the task – in which case we are left with the job of devising new indicators which capture not only individual attributes but structural relationships which shape social and economic life.

### *Conclusion*

These are not arguments against the use of indicators, especially in the process of informing public policy. We cannot get away from institutionalizing some concepts and information as a basis of communication and understanding. But this discussion highlights some of the problematic assumptions inherent in the development of social and economic indicators which obscure the ways in which indicators are constructed and how they in turn construct the world we see.

**There are problematic assumptions underlying social and economic indicators which obscure their construction.**

### *Critiquing Indicators: Gendered Assumptions*

The express intent of indicators is to represent or reflect specific empirical phenomena, to render these phenomena “knowable”. Methodologies and research techniques are developed to capture the “reality” of selected events, conditions or concepts. This immediately raises the questions: “Whose reality is captured?” and “Is reality measurable?”

**A variety of groups have challenged the objectivity of scientific pursuit.**

As argued above, social and economic indicators historically have embodied a positivist conception of knowledge, one grounded in the empiricist tradition of western science. More recently, a variety of groups have challenged the purported objectivity and privileged status of scientific pursuit, notably feminist scholars who have played a key role in challenging scientific positivism and its expressions across disciplines.

Feminist critiques of the humanities and the sciences are varied and diverse, stemming from a number of different theoretical and methodological traditions. Yet, there is agreement on the premise that **gender** is a key organizing principle of social and economic life, distinct from an understanding based exclusively on biological differences between the **sexes**. Here, gender is understood as “the culturally specific set of characteristics that identifies the social behavior of women and men and the relationship between them”. By contrast, sex “identifies the biological differences between women and men” (Status of Women Canada 1996: 3).

**Feminist scholarship is a different lens through which to understand social and economic life.**

In each area, “... feminist scholars have come to understand that what we take to be humanly inclusive problematics, concepts, theories, objective methodologies, and transcendental truths are in fact far less than that. Instead, these products of thought bear the marks of their collective and individual creators” (Harding 1986: 15). As well, they reflect the intellectual and political climates of their times. This is not to say that past theoretical and empirical knowledges are wrong, but rather that they provide a singular, or incomplete, perspective of social and economic life. Feminist scholarship provides a different lens through which to understand social and economic life, a lens which attempts to better capture the diversity of human experience – specifically its gendered dimensions – through new conceptual frameworks and methodological tools.

Much of this work involves excavating the underlying assumptions of dominant theoretical paradigms (what questions are being asked and what information is deemed relevant), methodologies (how one goes about doing research) and methods (techniques for gathering evidence). Below, we pursue our analysis of underlying assumptions of indicators by looking at the ways in which “gender bias” informs economic and social indicators. By gender bias, we mean a bias that operates in favor of men **as a gender** in everyday attitudes and actions, in theoretical reasoning, or in public policy (Elson 1991: Chapter 1). This is not to say that all men are biased against women. Rather, bias is present when asymmetries (i.e. differential wage rates for the same job) are ill-founded or unjustified. In most instances, gender bias stems from the particular ways in which earning a money income or paid work (production) is integrated with having and raising children (reproduction).



## *Do Women Experience the World as Men Do?*

Feminist scholars have argued for many years that women experience the world in very different ways than men do, and, consequently, that it is necessary to employ gender-sensitive research theory and methodologies to explore the condition and place of women and men in society. This contention strikes at the heart of traditional research which holds that the study of men, just like the usage of “he” as an impersonal pronoun, reveals the experience of both women and men. Although sometimes labeled as “gender neutral”, it might more appropriately be called “gender-invisible”.

Feminist analysis challenges the assumption that everyone is affected by or responds to social and economic life in the same way, and focuses on the diverse social realities, life expectations, and economic circumstances within and between women and men.

Perhaps the classic example of this type of bias in practice is the search for treatments for heart attacks and strokes. Early work in understanding and treating these diseases was based almost exclusively on studies of men and their physiology. Researchers argued at the time that the results of these studies would be equally applicable to both men and women. Using women in these studies would in fact confound the process of identifying the characteristics of the disease, and thus methods for its treatment.

Carol Gilligan makes a similar point in her famous book on moral development *In a Different Voice* (Gilligan 1982). She challenged the traditional philosophical and psychological literature – in particular the work of Lawrence Kohlberg – as advancing **male** notions of justice as the norm for **human** moral development. Kohlberg maintained that individuals pass through six stages of moral development, culminating at the point where they govern their own behavior based on universal principles of justice, reciprocity, and respect for others as individuals. The problem for Gilligan was that girls and women never scored beyond stage three of Kohlberg’s scale. This wasn’t because women were morally deficient, she argued, but because Kohlberg’s conception of morality was simply too narrow to accommodate anything other than the male point of view.

There are examples of this type of gender bias in labour market studies as well. Both existing theory and data are problematic in attempting to capture women’s experiences as paid workers. The area of part-time work is a good example. In surveys, when asked why they are working part-time (less than 30 hours per week in Canada), workers are presented with a list

**Work in the area of moral development has been deemed gender-biased as male notions of justice have been advanced as the norm.**

**Examples of gender bias in labour market studies have also been shown.**

of mutually exclusive options which include: “could only find part-time work”; “going to school”; “did not want to work full-time”; “personal or family responsibilities”. Consequently women, who may very well wish to work full-time yet have demanding family responsibilities, are forced into one slot or the other. In this instance, the survey design is based on typical male patterns of work, and, consequently, does not capture the reality of women’s lives and the restrictions they face in making decisions around paid work.

### *When Women are “Visible”, How are They Defined?*

Gender invisibility is one form of gender bias that is evident in the definition and construction of indicators. In such cases, the roles are not measured or are undervalued. In large part, it stems from how women and their activities have been historically understood and valued.

In Canada as elsewhere, women have been defined largely in relation to their responsibilities as mothers and caregivers in the private home, separate from the male/public realm of employment. The strict sexual division of labour, characteristic of many Canadian families through the early and middle parts of the twentieth century, not only shaped family life, but informed our understanding of individual gender roles and attitudes, our understanding of the ways in which the world works, and our social and economic institutions. This dichotomy between the public world of paid employment and the private realm of the household in effect worked to marginalize women and privilege men’s activity.

This particular gender bias is notably reproduced in income and poverty studies that are based on data sources (i.e. Survey of Consumer Finances) that are organized around the household as the unit of analysis. Individuals within the family are identified by their relationship to the head, defined in most instances as the male breadwinner. Unless women are identified as head of household – that is as unattached or with no spouse present – it is difficult to conduct conclusively a gender-sensitive analysis. These surveys assume that all members of a household pool income, and, in turn, have equal access to family economic resources. This assumption is problematic to say the least as it systematically hides the distribution of income within families. Thus, while we can readily determine the average income of a female-headed lone-parent household, it is much more difficult to draw definitive conclusions about the average income of women in couple households. As a result, it is hard to determine with accuracy the average income of women as individuals or as a group. Women and the value of their work in the household is systematically obscured in these surveys.

**The sexual division of labour through the early and middle parts of the twentieth century not only shaped family life, but also accounted for our understanding of social and economic institutions.**

**The use of the household as a unit of analysis creates a puzzle that must be solved.**

In a family, various members may earn income and make cash contributions into the “pot” of the household. Some members may decide on the allocation of that pot, including the reservation of some part of their initial contribution. Some members may do the actual purchasing of goods and services used by the household, and yet others may consume these same goods and services. Determining “household behaviour” requires delving into these intra-family transactions and decisions.

### *How Has the Notion of Gender Been Used in the Construction of Indicators?*

Indicators have been used extensively in newer studies that focus specifically on the status of women. These efforts attempt to make women visible as social and economic actors. For the most part, empirical studies look at the extent to which women have achieved education, economic resources, or physical and mental health, that is individual attainment. A good example of this type of work is the Statistics Canada publication, *Women in Canada: A Statistical Report* (1995b).

**Newer studies have made efforts to make women visible as social and economic actors.**

A second type of indicators are the traditional disaggregation of information by sex, along with other categories such as province, age, educational attainment, etc. This practice is followed extensively in most modern surveys, allowing for the identification of differences by sex. By using such information for either weighting purposes or as the actual data, it is possible to develop gender-sensitive indicators.

Another body of work, again drawing on indicators, attempts to measure the status of women relative to men. The concern here is whether women have as much education as men, earn as much, or live as long. In this work, measuring the relative status of men and women serves as an empirical method of determining the degree to which there is equality between the sexes, i.e. gender equality. The wage gap between men and women is a well-known indicator of gender equality; studies which document women’s over-representation in occupations like teaching and nursing compared to men fall into this category as well (Sugarman and Straus 1988: 230-233).

Taken together, this body of empirical research has advanced our understanding of the position of women and men in our society. More recent research into measures of gender equality is taking us beyond measuring the individual attributes of women or men, to understanding how gender relations are embedded in our social and economic institutions like the family or the labour market.

**The measures of gender equality take us beyond measuring the individual attributes of women and men.**

Yet, this work is informed by certain assumptions as well, notably, that gender equality means that women will be equal with men when their status or position in society is the same (i.e. when they earn as much as men do and are represented in equal numbers within each occupational group). In this construction of equality, men are held up as the “standard” against which to measure progress. There is little scope in existing measures to accommodate or value women’s different patterns of life. To take this example to its extremes, one could argue that women will be equal with men when they have similarly high incarceration rates.

### *Conclusion*

The thorny issue of measuring the status of women in society in all of its dimensions is compounded by the many assumptions that underlie existing social and economic indicators. The assumptions, purposes and values that we have discussed lead to some basic questions about indicator development. Is it relevant to pursue indicator development at all given the problems inherent in selecting specific indicators, establishing what they mean, and what knowledges can be measured? Is it possible to work with existing indicators to look at questions such as women’s equality, based on the gendered and individualistic assumptions built into many of these same indicators? Is it enough to add sex as a variable to be analyzed?

Clearly, efforts continue to push ahead in developing gender-sensitive indicators. We believe that this work, albeit fraught with problems, is useful in describing the position of women in Canada, in its diversity, and in advancing efforts to achieve greater gender equality. Yet this discussion of the underlying assumptions of social and economic indicators suggests caution in developing and using indicators. Indicators are not neutral windows on the world. We must return again and again to the assumptions behind old and new measures of social and economic life.

### **Indicators in Use**

**Here, five prominent social and economic indicators are examined.**

In this section, we examine some prominent social and economic indicators and their underlying assumptions, specifically as they relate to gender. We have chosen five well-known social and economic measures. The first set of indicators we review is the System of National Accounts (Gross Domestic Product (GDP) and real disposable income per capita or per household). Next, we turn to labour market data, specifically the headline indicators from the Labour Force Survey. Third, we look at a broad social indicator, the Index of Social Health. We then examine the Human Development Index (HDI) and its variant, the Gender-Related Development Index or GDI, as well as the Gender Empowerment Measure

(GEM), both produced by the United Nations. Lastly, we review the Economic Gender Equality Indicators (GEI) produced for the Federal-Provincial/Territorial Ministers Responsible for the Status of Women.

### Real Disposable Income Per Household, GDP (CSNA)

The System of National Accounts, including Gross Domestic Product (GDP), consumption, real disposable income, and productivity (output per person) underpin most macroeconomic analysis today. National accountants are quick to point out that they are not measuring social welfare, but rather the market-based activity in a society and the allocation of resources among major uses (Statistics Canada 1975: 28).

The litany of shortcomings of GDP are well-documented and widely discussed (Eisner 1994). For a start, the GDP and other measures derived from the National Accounts are gender invisible. Only market-based transactions are counted or imputed based on market analogs. Moreover, real disposable income per household is used as a proxy for economic welfare, while no information on intra-household division is possible.

National accountants are working on a number of these issues, such as: the problems of unmeasured household production; the valuation of leisure time; estimating environmental damage; and resource depletion accounting. Yet much remains to be done, especially in taking gender into account.

Gender-sensitive National Accounts pose particular problems, with the difficulty of disentangling production by firms and consumption by families on a meaningful gender basis. There is some hope that an estimate of real disposable income could be developed by gender, although all of the problems that arise in income distribution work by gender would confound the analysis here. Indeed, it is important to remember that the National Accounts are essentially a synthesis of a large number of surveys of firms, governments, and people, as well as administrative records. Thus each of these building blocks would need to take gender into account before the Accounts could be made gender-sensitive.

### Labour Force Indicators

This long-standing survey of labour market conditions provides detailed disaggregation by a number of variables, including sex, age, region, and industry. As a result, the Labour Force Survey (LFS) serves as a ready source of indicators of individual attainment of women as a group (e.g.,

**The GDP and other measures derived from the National Accounts are gender invisible.**

**Gender-sensitive National Accounts pose particular problems such as with the difficulty in disentangling production of firms.**

female employment rate) and by sub-group (e.g., labour force participation rates by age and sex groupings), as well as gender equality indicators (e.g., ratio of female to male unemployment rates).

The development of the LFS occurred at a time when the attainment of full employment was a primary goal for governments, where increases in female participation rates were rapid, and new entrants from the post-war baby boom were increasing the growth of the source population. Not surprisingly, most of the effort involved in improving the LFS was directed to better understanding these phenomena.

The survey is based on several gendered assumptions about the nature of economic participation – that is employment in the paid labour force – and work patterns generally. Strict distinctions are made between those who are economically active (the employed and unemployed) and those “not in the labour force”. Male employment patterns are understood as the model against which to measure all labour force participants and their activity.

#### Index of Social Health (Canadian Variant of Fordham Index)

The Index of Social Health (ISH) is published each year by the Institute for Innovation in Social Policy at Fordham University in Tarrytown, New York. Marc Miringoff has developed this Index as a method for monitoring social well-being in the United States. It is comprised of socio-economic indicators covering 16 different social issues which cover all stages in life.

**Each indicator used in the ISH is a relative measure over a time period.**

Each indicator is measured in comparison to its own best and worst performance over a given time period. The best performance is scored at 10 and the worst is set to 0. All other observations are scored within this 0 to 10 point scale, based on the relative performance of that year. The scores derived for each indicator are averaged and expressed as a percentage to reach an overall score. If all individual scores for one year were the best scores over the time period, the Index would be 100. Declining performance on one or more measures results in a lower Index score. The Institute charts the yearly Index scores against GDP per capita in order to compare social and economic progress.

Satya Brink and Allen Zeesman have employed this methodology to chart social change in Canada between 1971 and 1994, adapting this American model to social life in Canada. According to the authors, Canada experienced its best years for the Index of Social Health in the latter half of the 1970s. The Index sharply declined between 1980 and 1983, after which it remained fairly stable until 1989, and then declined again for two years. The Index recovered briefly in 1992 and flattened out at the level

experienced in the 1970s (Brink and Zeesman: 8). The authors also calculated the Index for different age groups, drawing on age-specific indicators, and for each province.

The Fordham Index of Social Health is a conceptual model governed by demographic considerations. It employs a relative methodology for converting social variables into units on a common scale. The scale is linked to the reality of a country's performance over time. All items are weighted equally in the final Index score.

The Index for Social Health is a gender-invisible measure. It assumes that the determinants of social health are the same for men and women. While it is possible to disaggregate each indicator by gender, this raises the question about the individual components of the index. Is there a distinction to be made between men's social health and women's social health? Do the indicators used in the Index capture those things that are important to women's social health? Teen suicide is clearly a key measure of youth health. Because boys are much more likely than girls to successfully commit suicide, they make up a much higher proportion of reported suicides. Yet, we know that depression is very prevalent among teen girls. Is this the best indicator then to capture mental health for teen boys and girls?

The other major assumption underlying this model is that it is based on individual or family-type attributes. It does not capture relational dimensions of social health. And as a result of its methodology, which charts change based on the best and worst years in a given time period, we would only be able to compare the social health of women over time, and not between women and men.

### HDI and GEM (UNDP)

The United Nations Development Program (UNDP) has published the human development index (HDI) each year since 1990. The HDI compares 175 countries on three basic measures: longevity, educational attainment; and standard of living.

In 1995, the *United Nations Human Development Report* introduced a modification of their HDI to reflect gender differences, creating a Gender-Related Development Index (GDI) (UNDP 1995: Chapter 3). This measures achievement in a similar manner to the HDI, but with disaggregation or adjustments for differences between men and women. One of the major innovations is a "penalty" for inequality, such that the GDI rises when the achievements of men and women increase, or when

**The Index of Social Health is another gender-invisible measure.**

**Human Development Index has been modified to reflect gender difference by creating the Gender-Related Development Index.**

the inequality between them is reduced. Equally important, this penalty is explicit and transparent in that others can raise or lower the penalty and recalculate the measures.

The underlying model is of the “human capital” type, with improvements in literacy, health, and Gross Domestic Product per capita reflecting “progress”.

**The Gender Empowerment Measure (GEM) was also introduced, concentrating on economic, political and professional participation.**

At the same time as the GDI was published, an additional indicator was introduced, the Gender Empowerment Measure (GEM). This index concentrates on participation – economic, political, and professional. The components are per capita income, the share of parliamentary seats, and the share of employment in the occupational classes of administrative/management and technical/professional. Penalties for low shares of women are applied to all components.

Anyone familiar with the functioning of parliament may question whether access equates with power. Similar observations would be appropriate regarding Boards of Directors of private companies and organizations. But the United Nations is constrained in developing measures for which the data can be obtained for most of the countries in the world.

The GEM is reflective of an underlying model of “structural” barriers, although the choice of occupation may contain a strong element of human capital as well.

#### *Economic Gender Equality Indicators (F-P/T Ministers)*

*Economic Gender Equality Indicators* represent the results of a study commissioned by the Federal-Provincial/Territorial Ministers Responsible for the Status of Women. These indicators attempt to provide a comprehensive picture of the economic standing of women in Canada. The project is designed to inform public dialogue and policy development, and to promote the goal of greater gender equality.

Indicators are divided into three groups: income, work, and learning. Under each heading, indicators were developed that included aspects of women’s economic realities that are often overlooked, valued both differences and similarities between women and men, and linked economic and social aspects of life. All indicators were derived for Canada and the provinces and territories and show averages for women and men over time. They are based on the individual attributes of men and women. Where possible, they attempted to reflect the situation of women with different age, education, occupation and employment characteristics, and those with young children.



The gender equality indicators are all expressed as indexes using the ratio of women to men, where 1.0 represents equality. Ratios either below or above 1.0 indicate inequality or imbalance for that indicator. For example, the total workload index examines the extent of gender equality in overall workload defined as hours spent doing both paid market work and unpaid work of economic value (i.e. child-oriented work, providing help to relatives, performing household work, volunteering). In 1992, the average workload for Canadian women was 8.9 hours per person per day, and 8.3 hours per person per day among men. The workload index is 1.08 (dividing the time for women by the time for men). In this case, the gender gap was 0.08 where women performed the larger share of total work.

The economic gender equality indicators are an innovative attempt to better understand gender equality in Canada. Working within the confines of existing data sets and definitions, they provide a broad set of indicators that measure the relative economic standing of women and men. The indicators are designed to specifically move away from the limitations inherent in focusing exclusively on the individual attributes to the relationship between individual men and women. They highlight the quantitative dimensions of economic status and do not attempt to measure other more qualitative or subjective dimensions. The vision of equality embedded here is clearly one predicated on the equal or “same” status of individuals.

## Producing Good Indicators

As a byproduct of preparing this paper, we have synthesized a list of criteria for good economic and social indicators (including the incorporation of a gender dimension). This draws on the work of Anderson (1991: 49 ff.), Carvalho and White (1994: 13), and a recent CIDA study (Beck and Stelcner 1997).

### How Should an Indicator be Put Together?

This first group of criteria are mainly technical matters, around the general theme of “quantification”. We note below the desire for more qualitative dimensions, but the tools need to be developed for their inclusion in social and economic indicators.

- A quantitative measurement – with properties that include unambiguity, consistency, and sensitivity.
- Specificity or focus – measures the problem to be fixed or the feature to be improved.

**The use of economic gender equality indicators as a measure of the relative economic standing of men and women is an innovative way to better understand gender equality in Canada.**

**There are a number of criteria for developing good economic and social indicators.**

- Clarity of definition – sufficiently well-defined that reproducible measurement is possible over time and across regions by different people.
- Technical soundness – data should be reliable, timely, and well-documented.
- An important measure in its own right or reflective of something that is important; for example, a measure of a major problem.
- Relevance – appropriate to the needs of the users.
- Disaggregation – all data should be disaggregated by sex. As well, disaggregation by age, ethnicity, and socio-economic grouping is desirable. Emphasis on various gender roles is also desirable (marital status, family makeup, occupations, etc.).
- Capable of also measuring different geographical areas, societal groups, etc. so that its distribution as well as the level or change is measurable.
- Participation – collected in a participatory fashion, with inputs from all stakeholders.
- Forward-looking – measuring past trends, and highlighting concerns that may not appear to be immediately important or even apparent.

#### How to Minimize the Resources Used in the Construction of an Indicator

These criteria are particularly appropriate for those with few resources.

- Already available or easily measured from existing information.
- The number of components chosen should be small.
- Be selective – focus on a relatively small number of priority indicators reflective of the major problems or significant dimensions in a society.

It is hoped that some organizations will continue to push the frontier by ignoring these criteria. Otherwise little genuine progress will be made on upgrading the quality of the indicators in use.

## How to Communicate the Story of the Indicator

Having an indicator is just part of the effort. Its purpose is to influence others. Thus it must be communicated, through the media, in reports, and through normal conversation. To that end, the following criteria should be kept in mind.

- Comprehensibility – easy to understand.
- Short time lag between date of occurrence and availability (timeliness).
- International comparability is desirable.
- Adaptability – usable for different countries and circumstances.

## Additional Considerations

Indicators that are based on **ordinal** versus **cardinal** ordering may be less sensitive to the underlying data on quantities and prices (spatial and inflation dimensions), methods used to adjust for size of families and economies of scale in households, the existence of rationing, and the breadth of the basket used (Hentschel and Lanjouw 1996: 3).

Measures may adjust household expenditure (or other aggregate concepts) for the number of people or their “needs” by applying “equivalency scales” to standardize the number. This approach implicitly assumes that less consumption by a member of a household reflects less relative need within that household. But it could reflect patterns of discrimination **within** the household, unrelated to actual “needs” (Hentschel and Lanjouw 1996: 32).

If disaggregation by sex is not enough, then what is required? Although gender is any grouping of data, it usually connotes a relationship or role between the parts. For example, gender roles may differ by family composition (single, divorced or separated, or married, with and without children, etc.). Gender measures may relate to multiple spheres or categories of activity or time use. Paid work, unpaid work, child care, and leisure time would be a more complete picture than measures that only look at paid work.

What if it is not possible to disaggregate by sex or by gender category? Measures may refer to aggregation across different units of observation, for example, individuals, families, firms, or communities. There may be an unknown mix of male and female respondents or members within the units responding to the survey.

Nevertheless, some adjustments can be made for gender differences. For example, the UNDP uses wage differentials and labour force participation rate differences to develop a relative labour income proxy, which, in turn, is used to adjust GDP per capita. Of particular interest is the use of a “penalty function”, which can weight differentially gender variations, depending on the importance to be attributed to gender equality (UNDP 1995, Chapter 3).

## Directions for Improved Indicators

At the Symposium there was a fruitful discussion of the issues raised in this paper. We first summarize some of the main issues raised during the Workshops. We have also extended the set of recommendations from the first draft of the paper to include additional suggestions from the Workshops.

### Workshop Issues

There are a number of implicit models underlying social and economic indicators. Some focus on individuals – their incomes, their human capital, and their health. But gender is about the “collective” or the roles of males and females. The framework or model needs to consider these relationships specifically. As well, the configuration of institutions and how they behave is important.

A “gender-equality” model focuses on both the levels and rates of change of the components. For example, rising income is a positive outcome if both sexes participate in it; more rapid growth of the lower income level is also desirable, implying a move towards convergence.

Measurement of market-based activity alone is not enough. Inclusion of the informal sector, the household sector, and a broader view of society is necessary to reflect the activities of both sexes.

The decision to be measured is not something to be taken lightly. In the aboriginal communities there is a serious debate of whether to be documented or not. This is particularly heightened when the measurement is for purposes that are not necessarily in their interest as a group or in support of decisions in which they do not participate. This too is a “gender” issue.

Indicators are not “neutral”. They are meant to be used to heighten awareness, to quantify in order to be part of the “game” of evidence-based decision-making. They can also measure a gap between the desired level

or state and current conditions. It is preferable if the view of the desired state can be developed in a fully participatory fashion. The proliferation of indicators should be seen as a sign of dissatisfaction with current measures.

A distinction should be made between “customers” and “citizens” in thinking about users of statistical data. There is a problem when the statistical agency treats people as revenue sources through “user pay”, while society is expecting them to represent their views in political debates. Should data be made available to citizens at no cost?

**Should people be treated as revenue sources through user pay initiatives?**

Current projects of indicator development tend to be dominated by the values of the market system, the transactions in marketable resources rather than on those that deal with relationships. They also tend to exclude concern with gender-related issues and with women’s realities. They focus heavily on quantitative data and tools, and involve little development of qualitative data. Also lacking are efforts at systematic validation of indicators.

### Recommendations for Statistical Agencies

We have grouped the recommendations from the Theme II Workshops and synthesized others from the initial draft under five major headings, based on who is responsible for following up on the recommendations. Please look through the full set to gain some sense of the current inadequacies that we all wish to overcome to improve the quality of indicators and their capacities to include the gender dimension.

The central statistical agency has the largest number of recommendations directed to its attention. This reflects its strategic importance in providing the underlying databases for most analysis. As well, as one of the sponsoring organizations it is not unexpected to “hear from the participants”. But everyone should remember that statistical agencies respond to expressed needs. As users or producers of Indicators it is extremely important that we speak up frequently, loudly, and through as many channels as possible. Otherwise, changes will happen only slowly.

- Household surveys should be fully disaggregated by sex and by gender roles. (World Bank 1995: 63 ff., Elson 1993: 244 ff.)
- Greater priority should be given for gender-disaggregated analysis of existing data sets.
- Data on how people use health and education services should be collected routinely as part of national consumption and expenditure surveys.

**There are several recommendations that can be directed to the central statistical agencies.**

- Broaden the national income accounting framework to include the value of unpaid work and to reduce it by environmental depreciation.
- Collect more data from individuals on consumption and assets to obtain a better understanding of the allocation and control of resources within households.
- More information on men's and women's access to credit and information services should be collected.
- There should be increased emphasis on panel data (time series for individuals) to facilitate more detailed analyses of household behaviour over time.
- Income measures should be developed that are sensitive to the distinctions between money income that is paid or earned, spent, and subject to discretionary power.
- Develop social and environmental accounting and audits to link indicators for group and other organizations to the broader indicators (Anderson 1991: 94-95).
- A substantial portion of Statistics Canada's budget should be devoted to implementing gender-based analysis (GBA) and integrating it into on-going statistical activities.
- Statistics Canada should engage in meaningful consultations involving diverse groups of women, including aboriginal groups, about gender-based analysis and the needs of these groups for information. Results of these consultations should be published.
- Statistics Canada should include NGOs in its data liberation initiative. This will help users of data in the voluntary sector become better informed.

An even more extensive list of suggestions has been provided by Birgitta Hedman, of Statistics Sweden (Hedman and Perucci 1997: 4 ff.). At the same time she points out that the data gaps and biases apply to both men and women. It is the lack of information about their roles together and separately that defines the gender statistics problem.

### Recommendations for Builders of Indicators

It is not enough to leave the statistical agency with recommendations. In the real world, it is the builders of indicators who will use the published data and participate in the debates about policy and other choices. The following recommendations are oriented towards the public and private institutions who are producing social and economic indicators.

- Analysis of gender-disaggregated information should be broadened to private and academic institutions (World Bank 1995: 63 ff.).
- Development of indicators for important, but difficult to measure, concepts such as democratic participation, strength of community life, observance of human rights, etc., are needed (Anderson 1991: 94-95).
- Sets of indicators reflecting differences in priorities for different groups (e.g., regional) should be developed.
- Adjustments in the calculations for differences in biological or “natural” differences should be made, and noted. For example, life expectancy for women may be longer by five years for biological reasons. To use relative life expectancy as a gender indicator may require a prior adjustment as is done by the UNDP.
- Gender **equality** indicators should be defined for those areas for which equality or a value of 1 is the desirable outcome. (This may not include an area like incarceration rates.) At the same time, gender **inequality** indicators that highlight differences may be usefully developed.
- Implicit models should be identified. Indicators based on several different models may be helpful.
- Builders of indicators should include a gender dimension in their work or clearly specify why they have not done so. For example, lack of data or demonstration that gender-based analysis makes no difference to the behaviour of the indicator should be required.
- Specific tools for incorporating qualitative information, utilizing feedback from people being measured, and validating the indicators are needed. Specific challenges are to represent the realities of women facing violence and insecurity.

### Recommendations for Users of Indicators

A discriminating user is the best assurance that indicators appropriate to the issue at hand will be used. Some recommendations to that end include:

- Develop a consensus around a set of priority indicators as a base for increasing political influence (Anderson 1991: 94-95).
- Publicize the priority indicators (Anderson 1991: 94-95).
- Assess international institutions (e.g., World Bank, IMF G-7) in light of alternative indicators.

**Discriminating users are the best assurance that appropriate indicators will be used.**

- Users need to demand better documentation of the underlying models of indicators. They need evidence of any validation of the results from the use of the indicator. As well, sufficient information about the consultation process used in developing the indicators should be provided.

### Recommendations for Decision-Makers

For gender indicators to influence decision-makers some changes are needed. In particular, decision-makers must be exposed to the availability of gender indicators and appreciate that outcomes can vary by gender group and within gender groups. Recommendations that may help to improve the acceptability of indicators include:

- Modify the machinery of government to be responsive to the priority indicators, rather than being focused only on some financial indicators.
- Proposals for research submitted by academics and others should, where appropriate, be required to give evidence that the work will include gender-based analysis (GBA). Departments that are currently attempting to implement GBA should be assisted in their efforts.
- Decision-makers at all levels of government, in the private sector and in the voluntary sector, must be held accountable for the use of gender-based analysis in their deliberations. This starts with their clear recognition that there are different determinants for the outcomes of different gender groups.

**As a starting point for all initiatives and programmes, it must be assumed that gender makes a difference.**

### Other Recommendations

We were quite interested in the apparent success of Sweden, in providing gender-sensitivity training, starting with the Prime Minister and Cabinet members. This ensures that gender-based analysis and indicators are taken seriously, and that during policy discussions the important additional question – “And does that vary by gender?” – is also raised.

Training of providers and users of data is important. Politicians need training about gender sensitivity, and the uses of gender indicators and gender-based analysis. This training is needed if gender-based analysis is to become integrated into decision-making within government. Such training should be an integral part of the training for all federal public servants and federal politicians.



Although the primary focus of the Symposium was on improving gender equality indicators and our knowledge about them, we should not forget that the “knowledge” is needed not just for better understanding, but also to ensure that policy development is inclusive and works towards women’s equality. This message was evident throughout.

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# **Using Gender Equality Indicators: Steps to Best Practices**

Background paper

by

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Nova Scotia Advisory Council on the Status of Women

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There are many different and equally valid purposes for social indicators. Indicators can be used to: monitor long-term social trends, identify problems, establish government accountability, measure the positive and/or negative effects of specific social programs, support public advocacy, provide a composite measure of social well being, etc. (Canadian Council on Social Development 1996, Bunch 1995.) While it is beyond the scope of this paper to discuss the inter-relationships among these various approaches, they are all useful and can build upon each other.

This paper focuses specifically on the construction of gender equality indicators that can be used as government outcome measures. We have chosen this particular application because it is not widely discussed in the literature and offers real potential for promoting gender analysis within the current environment of government renewal and restructuring that is occurring across Canada and throughout the world.

Demands for fiscal restraint and public accountability are forcing governments to rethink their functions and methods of operation, drawing initially on experience derived from private sector initiatives, but building increasingly on public sector experience (Schick 1996, O'Hara 1997: 13-15). Thus, changes in government operations have involved attention to quantifiable outcomes and results. Most government agencies are now incorporating business plans, redesigned work processes, benchmarking, best practices and quantifiable outcomes in their overall operations.

Successful change in government depends on the simultaneous progress of the two interconnected considerations of “doing the right thing” – effectiveness – and “doing things right” – efficiency; in other words, the nexus between means and ends. “Doing things right” is closely linked to performance measurement and fiscal sustainability. “Doing the right thing” relates to public accountability, outcomes and indicators. In the public sector, as much as in the private, the heightened focus on service and results supports movement away from monolithic, bureaucratic structures to more flexible and responsive forms of organization. Ideally, governments will work efficiently and effectively to meet the needs of their citizens, within a context of wider democratization and citizen involvement.

This paper proposes that gender analysis, in general, and gender equality indicators, in particular, are key elements in supporting the advancement of women's equality within the current context of governmental action. Further, the current context offers new opportunities for ensuring that women's voices are heard in the development and implementation of legislation, policies and programs.

**Gender analysis and gender equality indicators are key elements in supporting the advancement of women's equality.**

A review of relevant literature and, most importantly, interviews with Status of Women officials across Canada underlie this paper. The interviews were designed to elicit the experiences, opinions and suggestions of our colleagues in the effective use of gender equality indicators, and we are grateful for their insights. The contextualizing arguments (and any errors), however, are solely the responsibility of the authors.

The paper continues with a consideration of “best practices”: what do these mean in the context of the public sector? We move on through a consideration of six steps that define a process which, in our view, constitute the elements of “best practice” in the development and use of gender equality indicators. These steps are:

- Engaging Stakeholders in Concept Formation
- Building Consensus
- Defining the Concepts
- Integrating Indicators into Analytical Framework
- Communicating and Progressing
- Using the Indicators.

## **Best Practices**

“Best practices” are the processes or procedures that are most effective in achieving desirable goals. Much of the discussion of best practices has arisen from the business community where goals include identifying and capturing new markets, delivering services more cost-effectively, gaining competitive advantage, and, in the final analysis, increasing profitability.

Mintzberg (1996: 77) has pointed out that the relationship between government and citizen is fundamentally different than the relationship between business firm and customer. For the most part, we recognize our relationship with the business community as transaction-oriented and contractually-defined. Our relationship with government, however, is much more generally oriented to expectations that government works in our best interests, for the wider public good.

While we have many transaction-oriented dealings with government, such as the purchase of motor vehicle permits or remittance of taxes, our primary role is that of citizen, not of customer (Mintzberg 1996: 77).



Government is expected to provide the infrastructure for the kind of society we want as citizens. We have every reason to expect government to be working in our best interest. This relationship between citizen and government creates a fundamental difference between “best practices” of government and “best practices” of business. While businesses are free to identify and use whatever market niches are most profitable for the company and its shareholders, governments must identify, understand, and accommodate the great diversity of citizens, balancing sometimes competing interests in the pursuit of best possible outcomes.

In consequence, “best practices” in government, and in the development of indicators, must take into account much more than technical requirements and single “bottom lines”. The following sections discuss issues for consideration at each stage of the development and use of gender equality indicators, to ensure that they are widely accepted and widely used to identify the opportunities for governmental and non-governmental action in pursuit of women’s equality.

**“Best practices” in government, and in the development of indicators, must consider much more than the single “bottom lines”.**

## **Engaging Stakeholders in Concept Formation**

One of the most important criteria for the success of gender equality indicators is the development of measures that are widely accepted by various publics. *Social indicators should reflect goals toward which we can progress through both public policy and private behaviour.* Such coherent and concerted action is one of the most valuable contributions indicators can support. The more women across Canada are working together toward a goal, the greater the likelihood of progress. This conception directs our attention and informs the processes by which we can arrive at useful indicators. *If we are to build real commitment to gender equality indicators, ownership must be based within the community and throughout diverse government departments.* Experience has shown that success in promoting women’s issues usually depends on the simultaneous efforts of people working both inside and outside government (Karman 1996: 1).

**If we are to build real commitment to gender equality indicators, ownership must be based within the community and throughout diverse government departments.**

*One of the most significant challenges in the development of social indicators is to engage all stakeholders in the process.* Some people believe a statistical background is necessary. To avoid this perception we must not move too quickly to technical considerations of how the concepts will be measured. Women must first be free to discuss their visions of what they want for their daughters, their nieces, their granddaughters and the next generation of Canadian women without being hampered by questions of how this could be measured or whether or not the data is currently available.

The success of such an approach is clearly illustrated by our increasing capacity to address issues related to women's unpaid work. Thanks to the efforts of women's groups, this matter was brought to the attention of policy makers and data gatherers in such a manner that improved measurement became a necessity, as reflected in the recent Census release on the subject, and, of course, in the *Economic Gender Equality Indicators* released by Status of Women Ministers last fall (Federal-Provincial/Territorial Ministers Responsible for the Status of Women 1997).

## Building Consensus

Indicators are, by their very nature, a unifying force. *Carefully designed gender equality indicators have the potential to transform individual circumstances into social concerns.* For example, by presenting statistics on violence against women, we empowered women. We helped them say "it is not just me"; "it is not my fault". What people had identified as a private problem has become a social issue. Once identified as a social issue, violence against women can be addressed through social, legal, policy and program responses.

**Carefully designed gender equality indicators have the potential to transform individual circumstances into social concerns.**

Indicators have the potential to unify citizens around issues because they refocus discussion from the abstract and anecdotal to the concrete and quantifiable. Points of contention that are heatedly debated without the benefit of empirical "reality checks" may disappear, or at least be clarified, when confronted with specific numbers. The presentation of statistical evidence can help both sides of an issue to see the other point of view.

For example, many debates related to formal and substantive equality for women can be informed by a clearer understanding of goals. Is our primary goal parity with men? Or, are we seeking improvements in the quality of life for women? To what degree do measures of individual economic status reflect the interdependencies which more accurately represent our existence as social beings? To what degree are such interdependencies consistent with personal autonomy and self-determination? To what degree do they reflect power imbalances between the two genders? Such questions do not require either/or answers, and solid indicators can help us sort out and work toward what we really mean by the advancement of women's equality.

The following hypothetical example illustrates how numbers are helpful in informing the debate with respect to the relative importance of seeking parity and improving the quality of women's lives. Let us say that the income ratio were to change from \$.50 income for women for every dollar of men's income, to \$.60 income for women for every dollar of men's income. Clearly, this represents increased parity between women and men. But does it represent an improvement in the quality of women's lives?

If women's average income were \$20,000 and men's average were \$40,000, we would have the \$.50 ratio. A narrowing of the gap, to \$.60, could have occurred in a number of ways:

- Women's income remained constant at \$20,000; men's income decreased to \$33,000.
- Women's income decreased to \$15,000; men's income decreased more sharply, to \$25,000.
- Women's income increased to \$30,000; men's income increased to \$50,000.
- Women's income increased to \$24,000; men's income remained constant at \$40,000.

While there may be dispute over the relative importance of achieving parity with men versus achieving improved quality of life for women, there would be much less disagreement about the relative desirability of each of the above scenarios.

Debates about social indicators have also included different perspectives on the role of objective measures, such as those related to income, and more subjective measures, such as those related to empowerment, locus of control and life satisfaction (Noll 1996: 7). An approach to indicator development which takes the desirability of inclusion of stakeholders and publics as a basic operating principle and which provides for a balance between macrosocial variables and their psychological correlates, is more likely to succeed in building and maintaining the consensus needed for gender equality indicators to become meaningful tools in the public policy process.

## Defining the Concepts

At this point in the evolutionary process of government restructuring, the greatest potential for gender equality indicators depends on their

**The inclusion of stakeholders and publics in the development of indicators is an approach likely to succeed in allowing gender equality indicators to become meaningful tools in the public policy process.**

**Gender equality indicators should be formulated as high level social goals, not as gauges of specific departmental or program performance.**

construction and acceptance as outcome, not performance measures. *Gender equality indicators should be formulated as high level social goals, not as gauges of specific departmental or program performance.*

New Zealand led one of the first and most comprehensive efforts to redesign government, and among the lessons to be learned from that experience are those which relate to the level at which social indicators must be defined or operationalized to be useful outcome measures, for the country as a whole, not simply for its government.

Original reforms in New Zealand were based on the following conception:

The Public Finance Act 1989 defines the relation of outputs to outcomes in causal terms. Outputs are “the goods and services that are produced by a department, Crown agency, Office of Parliament, or other body”; outcomes are “the impacts on, or the consequences for, the community of the outputs or activities of Government.” In other words, outputs produce outcomes. (Schick 1996: 61)

While this conception was intended to establish accountability for government performance, it may have had unintended consequences. Schick, who evaluated the New Zealand reforms, argues that a clear distinction between outputs and outcomes is essential, because the relationship between outcomes and outputs is not necessarily or directly causal. Holding people accountable for outcomes that they do not, in fact, control, can result, for example, “in expedient escape routes; one of the most popular is to define outcomes so vaguely that progress cannot be measured.” (Schick 1996: 61)

Schick proposes the following alternative:

Outcomes are measures that indicate progress, or the lack thereof, in achieving public objectives.... Outcomes should be seen not as measures of impact, but as indicators of direction. They should be employed more for formulating policy than for maintaining accountability.... Particular outcomes may or may not be the product of outputs, but even when they are not, the government should take notice of them, analyse their significance, seek to explain what has or has not happened, and develop appropriate policy responses. (Schick 1996: 61)

Outcome measurement, and hence gender equality indicators, offer real potential for the incorporation of women's interests and concerns into governmental goals. However, as Schick points out, a key success factor is that indicators are formulated and defined as measures of broad societal goals, and are not reduced to the level of outputs or performance measures. Should the latter occur, we run the risk of entanglement in "doing things right" to the neglect or exclusion of "doing the right thing", which invariably requires concerted action across government departments, between government and community; in the public as well as in the private domain. Effective definition of concepts underlying indicators must proceed within a clear grasp of their application at the level of society as a whole.

### **Integrating Indicators into Analytical Framework**

The shift toward an outcome directed approach in government forces a more analytical approach to policy and program development. If we are to work toward any outcome, our success depends on a thorough understanding of the conditions that are related to that outcome. One of the principal advantages of gender analysis is that it assists in the design of effective policies and programs by uncovering conditions related to a particular outcome. If, for example, we were concerned with reducing dropout rates in our schools, analysis demonstrates different dropout rates for boys and girls (Statistics Canada 1991). Furthermore, the reasons boys and girls drop out of school are shown to be quite different. In this and many other instances, gender analysis is critical to developing successful intervention strategies. As governments become more analytical and outcome focused, the opportunities for effective policy interventions resulting from gender analysis increase.

**As governments become more analytical and outcome focused, the opportunities for effective policy interventions resulting from gender analysis increase.**

*For indicators to be most useful in policy development, they must be strengthened by comprehensive analyses grounded within a framework which ensures our continued progress toward gender equity. We must ask questions like: What happened? Why did it happen? Is this the direction in which we want to go? It is the analysis in many cases that helps us determine advantages and disadvantages of differing policy options, and may also allow the formulation of better policy alternatives.*

We use the example of one of the recently released *Economic Gender Equality Indicators* (Federal-Provincial/Territorial Ministers Responsible for the Status of Women 1997) the total work ratio, to illustrate the above points, with the numbers being hypothetical, for illustrative purposes only. The total work ratio is composed of both paid and unpaid time. Consider the situation of a reduction in the total work index from 1.20 to 1.00. In

technical terms this would mean women had gone from doing 20% more work than men to doing the same amount of work as men. Is this a move in the right direction?

The table below presents some hypothetical numbers to describe how this change may have occurred. In general terms, the table illustrates an increase in time spent at paid work by both women and men, with corresponding drops in time spent on other activities: child-related work, relatives and friends, volunteer work and other household work.

**Table 1: Hypothetical Example – Hours Per Week Time Allocation**

	Time 1		Time 2	
	Women	Men	Women	Men
Paid work	20	40	35	45
Child-related work	20	10	10	5
Relatives and friends	15	10	4	2
Volunteer	15	10	2	2
Household	20	5	10	7

A more comprehensive analysis of the conditions behind these changes would be needed to identify the direction that needs to be taken in terms of policy development. The following scenarios describe two very different conditions under which such changes could have occurred. These different conditions would also point toward different policy directions.

**Scenario 1:** It could be that the increased hours of paid employment for both women and men was created primarily by financial pressures that were felt most strongly in families with small children. As a consequence of spending so many hours commuting and working away from home, people had little time left to spend with their children, families, friends, or in volunteer activities. This scenario would have serious implications for social policy in areas such as the National Children’s Agenda and Health Care Reform. What are the effects of ever increasing hours of paid employment on the well being of our families and communities? How successful will co-ordinated home care be if there are no family members available to assist with this care?

**Scenario 2:** Another plausible explanation for such a change could relate to changing demographic profiles. It may be that the average number of hours of paid employment has increased because a large proportion of the population has reached an age where their children are older and they want to devote more time to paid employment. However, this increased work effort in the 40 to 60 age group could be blocking the employment prospects of those in younger age groups. The relevant policy questions under this scenario would be quite different from those developed under scenario 1. Are fertility rates dropping because of increased unemployment, non-standard work and lower income among those persons of child bearing age? Are we facing a skill shortage when the 40 to 60 age cohort retires because of the lack of relevant work experience within the following cohort?

Clearly, the policy directions to be taken would be very different under scenario 1 and scenario 2. *While indicators are important for monitoring long-term social trends and identifying potential problems, their application to public policy depends on the integration of such indicators into a broader research framework that includes the deconstruction of contributory components and the detailed analysis of underlying conditions.*

Once again, there are lessons to be learned from the New Zealand experience. Criticisms are directed toward the strict adherence to strategic plans because such rigid procedures diminish the capacity of the organization to be future oriented and to respond to emerging concerns (Mintzberg 1994).

The government is interested not only in current outputs but in each department's potential to produce the services that may be wanted in the future. This capacity requires the department to plan for the future, adjust its objectives, priorities and resources to meet the opportunities and demands it may face, and make necessary changes in its organization and operation. "Strategic capacity" refers to this process of purposeful, directed change. (Schick 1996: 53)

Strategic capacity depends on detailed analyses of underlying conditions or contributory factors. Our ability to predict and make the modifications necessary to accommodate future trends depends on the strength of our analysis of underlying factors and conditions. High level indicators are useful in alerting us to troubling trends, such as increases in child poverty. More detailed analyses are needed to identify accurately ways

**The application of indicators to public policy depends upon their integration into a broader research framework that includes the deconstruction of contributory components and the analysis of underlying conditions.**

to prevent these problems from escalating. If the increasing incidence of child poverty is tied to the increasing incidence of poverty among female-headed lone-parent families, preventative measures for child poverty would necessarily involve a close examination of the economic circumstances of lone-parent mothers (Nova Scotia Women's Directorate 1995: 5-6). If we could predict that certain policy or program directions would have economic benefits for lone-parent mothers, we could demonstrate how such measures would not only directly benefit women but would also indirectly benefit their children and thus strongly support the National Children's Agenda. It is very difficult and time consuming to make changes in public policies once they are in place. *Our greatest chance for success is to seize opportunities during the policy development stage, rather than after the fact.* The more thorough we are in our understanding of the conditions that underlie changes in social indicators or outcomes, the more likely we are to be able to work for preventative measures before problems arise or get worse. Corrective measures are time-consuming and costly, both economically and socially.

### Communicating and Progressing

**Indicator development is an ongoing process, raising the necessity of managing a number of paradoxes and dilemmas.**

The nature of social reality is such that no quantitative model will capture its richness, its evolutionary and changing character, its essential indeterminacy. Given this premise, we conclude that indicator development is an ongoing process, raising the necessity of managing a number of paradoxes and dilemmas. On the one hand, for example, we want to have indicators that consolidate variables measured over time so that we can understand trends and predict future outcomes. On the other hand, we need to constantly revisit indicators to ensure that they continue to reflect the real interests and concerns of the women of this country.

The relevance of indicators depends on comprehensive communication to promote continuing discourse among stakeholders. The vast array of audiences would include: the general public, women's groups, the media, government policy analysts, elected representatives, and the United Nations. *While no one presentation format is suitable for all audiences, thorough technical and analytical background information can form the basis of multiple approaches all of which carry the same essential messages.*

For all stakeholders, indicator acceptance and usage depends on trustworthiness and transparency. The reality the indicators point to must be as clear and unambiguous as possible. Both governmental audiences and public audiences must concur with the conclusion that gender equality indicators are a valid numeric representation of what we believe equality



and fairness to be. Building such trust requires a presentation of information that is readily understood and “speaks to people” (Canadian Council on Social Development 1996: 26).

We have all heard about “lies, damn lies and statistics”. With the growth of the knowledge economy has come an increased use, and misuse, of statistical information. The public now harbours a healthy skepticism toward the statistician’s wares. *It will take the combined expertise of academics, policy analysts, and statisticians, working in partnership with community stakeholders, to create numeric representations of complex concepts that are understandable and trusted.* For example, the credibility of the existing economic gender equality indicators is enhanced by the partnership of the Federal/Provincial/Territorial Forum of Status of Women Ministers with Canada’s world-renowned and respected statistical agency, among our co-hosts at this conference.

It is beyond the scope of this paper to enter into the complexities involved in communicating to such diverse audiences. However, we will offer a brief discussion of methods for approaching the media and the public because these are such important audiences for widespread distribution and usage. Gender equality indicators and their associated background information can be very useful as quick responses to media stories reporting sensational anecdotes. For example, a recent opinion column by a family lawyer vehemently attacked women’s claims to spousal support. She writes:

... the wife can always find some reason to claim spousal support. If she worked outside the home and supported her husband while he became a brain surgeon, her claim is for “compensatory support”. If she did just the opposite, sitting around eating bon-bons while the brain surgeon supported her, her claim is for “developing a pattern of economic dependency”. (*Daily News*, February 12, 1998)

Gender equality indicators and the analyses which form their underpinnings enable us to counter bias and misinformation, starting at a more abstract statistical level and working down to stories that illustrate the realities of women’s lives. The following points, once again based on hypothetical numbers, exemplify the approach that could be taken to respond to the aforementioned media coverage:

- the case proposed is anomalous

**The analyses of gender equality indicators illustrate the realities of women’s lives.**

- on average, women who do not work outside the home spend almost twice as much time as men doing unpaid work (bon-bon eating not included)
- women who do not work outside the home spend an average of 12 hours a day on unpaid work including housework and child care
- only 1 in 3,000 Canadian women who do not work outside the home spend less than 3 hours a day on household work
- the typical day of a full-time homemaker is more like Mary Smith's than our learned friend's bon-bon eater
- followed by interview with Mary Smith.

*The anecdotes and stories that are essential in communicating with our varied publics must be selected on the basis of their truthful reflection of the conditions underlying gender equality indicators. They must be stories based on widely-shared experiences, rooted in the realities of Canadian women, representative of our collective knowledge, leading to consensus for solutions. By ensuring that such stories and gender equality indicators mutually inform each other, we assist citizens in fulfilling their roles as active and informed participants in a democratic country. Easily grasped numbers and personal stories provide a good combination for sticking in people's minds. These types of communication strategies will be useful in making higher level gender equality indicators meaningful to broader audiences.*

## Using the Indicators

Gender analysis is consistent with the leading edge of policy formation. Gender analysis is based on a clear articulation of policy goals, responsiveness to disparate impacts on different population groups, and identification of means to achieve goals within sustainable levels of governmental expenditure. Adequate gender analysis demands more than the disaggregation of statistics, more than "gender breakdowns". It requires real strategic thinking directed toward the accomplishment of real goals and outcomes. High level indicators provide focus and direction to this more fluid approach.

Some of the obstacles we face with respect to integrating gender analysis into government work occur precisely because this approach is on the leading edge and slightly before its time. Good gender analysis cannot be reduced to a specific formula but is dependent instead on the creative capacity of analysts to examine policies in light of their potential for

**Gender analysis requires real strategic thinking directed toward the accomplishment of real goals and outcomes.**

progressing toward the outcomes or goals of social equity and justice. What appear at the moment to be our greatest obstacles may soon, however, become our greatest assets. As with any new process, people in government are struggling with how to make outcome-based measurement work. The lessons learned from developing and implementing gender analysis put women in a good position to be leaders in this field. A number of Status of Women officials from across the country commented on the importance of getting in on the ground floor for the development of government indicators. The expertise gained from the gender analysis perspective can serve to move women's issues from the periphery into the core of government outcomes.

Indicators, as the word implies, point out directions for action. Indicators are signposts, and it is important to look at signposts before setting out on a journey, as opposed to back-tracking. A consistent response of Status of Women officials interviewed in connection with this paper was that it is essential for gender analysis to occur at the outset of policy development, when the agenda is being set. Again, indicators can be useful in establishing the policy agenda in both social and economic realms. And the "best practices" proposed in this paper ensure that those indicators are convincing, that they mobilize public support, that they further social cohesion around the core values of our democratic society.

**It is important to look at indicators as signposts before setting out on a journey, as opposed to backtracking.**

Our challenge and opportunity is to build on the economic gender equality indicators already produced. We can involve others in the process of further refining them. We can work toward strengthened consensus around the indicators as reflective of our missions, of advancing equality, fairness and dignity for all women. We can carry out the analyses needed to explore the social dynamics underlying the indicators. And we can effectively communicate our findings to the Canadian public, reinforcing the public expectation that the advancement of women's equality remains high on the nation's agenda, both internationally and domestically, for every order of government.

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# **Conceptual Issues, Technical Problems, and Statistical Integration Questions in Work on Gender Equality Indicators**

Background paper

by

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## Introduction

This document is an outline of topics and related issues, designed to provide the participants in the workshop on Theme IV with ‘raw materials’ for building discussion that may lead to recommendations about practices in the development and display of gender equality indicators. Our original plan was to prepare a formal discussion paper whose major sections would be delineated in terms of responses to the following broad questions.

- What subjects should be covered by gender equality indicators?
- On what dimensions of the subjects do we need decisions?
- How should the indicators be displayed?
- What are the technical hurdles to improved integration of gender into prominent accounting systems?

Unfortunately, our heavy involvement in the marketing and operational planning for the symposium has used up the time that was needed to produce a formal discussion paper. While abandoning the project of producing a formal paper, we have kept a strong focus upon the need to stimulate discussion upon important technical and conceptual issues that exist for the whole field of gender equality indicator development. What follows is a series of notes which attempt to identify some of those issues, along with occasional illustrations of specific aspects of the issues. The notes are organized under the broad questions listed above.

### What Subjects Should be Covered by Gender Equality Indicators?

A review of several publications of statistical series for gender equality indicators indicates a wide range of subjects, and related variables, with respect to which such indicators may be defined. There are several alternative ways of classifying these subjects. The following is one example derived from our review of documents that present gender equality indicators.

- Income, wealth and poverty
- Health: e.g., physical, emotional, spiritual
- Education: e.g., formal and informal
- Paid and unpaid work
- Leisure: e.g., time alone, sleep and rest time, and free time
- Justice: e.g., perpetrators of crimes, victims, legal decisions

**Policy issues and priorities relating to gender balance should guide the taxonomy of indicator subjects.**

- Human rights
- Power and control
- Freedom and safety
- ??

Simply presenting a catalog of possible subjects for gender equality indicators based upon what one finds in the literature is not adequate, however. Work on producing indicators usually takes place within a specific political jurisdiction. When that is the case, the list of subjects should emerge from decisions that are made in response to some basic questions. Among them are following questions. In what aspects of the organization of a society (community), and for what dimensions of the development of men and women within the society, do we care about gender balance? If government and corporate policies are to be developed concerning those aspects and dimensions, where should the available resources and effort be most heavily concentrated? In other words, for policy purposes, what are the priorities among the said aspects and dimensions?

We should address such questions before drawing up lists of subjects for the creation of gender equality indicators, that is, lists such as the one shown above. Within the context of our responses to the basic questions, we can inspect a particular proposed list and ask the following questions: What subjects are omitted? What subjects might be dropped because of lack of policy relevance? Given limited resources for statistical and conceptual research and development, what indicators should be developed first? What classifications of the subjects are most suitable?

### **On What Dimensions of the Subjects Do We Need Decisions?**

The simple question stated above, as the heading for this section, masks some very deep or complex issues that need to be stated explicitly, so that collective decisions about them can be sought. The following is a selective listing of these issues.

#### *What Kind of Gender Equality?*

**What kind of gender equality is sought: equality of opportunity or of results?**

What kind of gender equality should we seek? Among the possibilities are equality of opportunity and equality of outcomes or results. But these two, about which much has been written, are but a beginning of the alternatives ways of addressing the question just stated.

Another key aspect of the question concerning what kind of equality was stressed in the recently released *Economic Gender Equality Indicators*. Often implicit in the adoption of a gender equality goal is a standard of performance or achievement. What is that standard? Do men and women have equal power in setting that standard? If, with respect to the performance or achievement in question, there are evidently different male-oriented and female-oriented cultural value systems, is one these systems dominant in setting the standard? If so, is that what we want? If that is not what we want, what is the standard that would emerge from less dominance of one of the two cultural-value systems?

**What performance standard is best; who should define it?**

Speaking about “what we want” should not be seen as a suggestion that collective decision making and consensus can be achieved without enormous difficulty and tension among parties that have competing interests. On the contrary, it should be assumed that the answer to “what we want” emerges from a normal of process of political competition among interest groups, and that can often be much like bloodless warfare.

In short, buried deep under a project to create gender equality indicators is a set of positions about what kind of equality matters. Often related to a given position is a performance standard, and the issue as to the dominance of male-oriented or female-oriented cultural value systems in the setting of that standard can become relevant. From time to time, at least, it may be healthy to bring these underlying positions, standards and standard-setting criteria to the surface for inspection and debate. A feature of *Economic Gender Equality Indicators* is the fact that it alludes to this process as something that may be overdue in Canada.

**It may be healthy to debate underlying positions, standards and standard-setting criteria before deciding on which ones will guide the indicator development.**

#### *What Level of Spatial (Geographic) Detail?*

At one extreme indicators could be produced for sub-provincial areas, or groups of sub-provincial areas such as all census metropolitan areas in a province, or rural and urban areas. At another extreme, indicators could be produced for Canada only.

Inequality for one regional system may disappear (because of the effect of averaging) at a higher level of aggregation.

#### *What Time Points and Time Periods?*

The alternatives regarding the temporal dimension include annual, quinquennial, occasional. The minimum length of time series is also a relevant issue.

At one extreme monthly indicators could be produced drawing on data sources such as the Labour Force Survey. At the other extreme indicators could be produced every census year.

Many indicators not requiring sub-provincial detail could be produced on an annual basis because the source survey is either annual or more frequent. Notable exceptions are the time use surveys (1981, 1986, 1992, 1998) and the Longitudinal Survey of Children and Youth (every two years beginning in 1994).

### *What Level of Subpopulation Detail?*

Lurking behind the question just stated are some significant policy and program issues that are linked to particular sub-groups of the population. These include, for example, persons living alone, single parents, age groups (children, seniors), immigrants, ethnic groups, language groups, aboriginal Canadians, etc.

To take the example of a neglected subpopulation in the area of gender equality indicators, do we need special indicators of the differences between girls and boys on their academic performance, especially in mathematics, their tendencies to direct or indirect aggression, their use of drugs, tobacco or alcohol, their participation in civic or informal education, or household chores? With the new Longitudinal Survey of Children and Youth, there are opportunities for producing many new indicators, but how important are they in relation to the other subjects?

### *What Should be the Reference Population?*

A difficult issue of reference group selection raises its head whenever we ask whether men benefit more than women, or vice versa, from having had a certain experience or opportunity. The problem arises whenever benefit is determined only by comparing a group that had the opportunity with another group that did not have the opportunity (or one who had a great deal of the opportunity versus one that had little of it). The group that did not have the opportunity, or had little of it, is the reference group for the purposes of measuring benefit from the experience or opportunity. If a sub-set of men is the reference group for measuring the benefit among men, and a subset of women is the reference group for measuring benefit among women, then the measurement of the gender difference in benefit, as measured, can produce results that are very difficult to interpret. This is an important problem whenever there is a tendency to measure benefit using reference groups in the manner just described.

To illustrate this problem let us review our experience with comparing men and women as regards income returns to education. At the end of that experience there was a consensus that the results were too difficult to explain to the public, and we were left with two unanswered questions. When measuring returns to education and other kinds of investments, what should be the reference population? Who should decide the answer to this question?

**An example of a problem regarding choice of reference population: measuring the returns to investment in education for women and men.**

Our problem arose because the mean income of the reference group among women was much lower than that for the reference group among men. To put the difficulty in its simplest terms, when highly educated men and women have roughly similar incomes, the measure of benefit, using the reference group approach, showed women far ahead of men. Yet this was partly a statistical product of the choice of reference groups.

In the case of the income returns to investment in education, our analysis showed that women in all provinces and in each of three years were estimated to have much greater returns to investment than men; but this result was partly because of the reference population used. The age range was 20-64 and all women and men with positive earnings were included in the calculations.

Our first estimate of the rate of return on investment in education was obtained directly by a method that is accepted in the literature. Under this method the earnings (wages and salaries plus self-employment income) of women and men were estimated by years of schooling and the potential labour market experience.<sup>1</sup> Specifically, to obtain the first estimate, an equation was estimated for women and men separately with the following form:

**On measuring the returns to investment in education using a method accepted in the literature, we find that the result is a misleading indicator.**

$$\text{Ln } Y = a + bS + cE + dE(\text{squared})$$

where Ln Y is the natural log of earnings of an individual, S is the years of schooling, and E is the potential years of labour market experience. E is measured by age, less years spent in school, less six, the assumed age at which schooling is begun.

The estimated b coefficient was then the estimated percentage change in earnings, given a one year increase in schooling: the estimated rate of

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<sup>1</sup> The method is described in Pscharopoulos, G. (1987). The Cost-Benefit Model. In G. Pscharopoulos (Ed.), *Economics of Education Research and Studies* (pp. 342-347). Oxford: Pergamon Press.

return to investment in education. For the year 1994 and at the Canada level, the rate of return was estimated to be 0.34 (or 34%) for women, and 0.162 (16.2%) for men.

A gender equality indicator was defined as the ratio of the b coefficient as estimated by the equation for women (in the given year and province or territory), to the b coefficient in the corresponding equation that applied to men. The result was  $0.340/0.162 = 2.1$ , meaning that the estimated returns to investment in education for women was just over twice as great as that for men.

It was thought that this method resulted in estimates that were too high for women because it did not control for the fact that some women would have extra low earnings either because they were single mothers, or because they had preschool children. This method was therefore modified so as to control for these two family situations. The modification involved the addition of two variables to the above-specified equation:

LPARENT = 1 if respondent was a lone parent, and 0 otherwise

CHILDLE6 = 1 if there were children six years of age or younger in the respondent's family, and 0 otherwise.

At the Canada level the modified b coefficient, computed after adding those two variables to the model, equalled 0.302 for women, and 0.159 for men. The defined indicator, the ratio of the b coefficients, became  $0.302/0.159 = 1.9$ , meaning that the estimated return for women was just under twice that for men.

The fact that the revised indicator was not much lower suggests that other factors may be at work that tend to increase the estimated rate of return for women more than for men. An interpretation in terms of the human capital approach may be found in the work of Vella.<sup>2</sup>

An alternative explanation of the male-female earnings gap points to discrimination by employers, fellow workers or consumer preferences as the main cause: "Underlying these large pay differences are the continuing segregation of work by sex, a sparsity of promotions for women, and differences in respect accorded men and women. ... Because of their lack of access to all jobs on an equal basis, women have a disproportionately small share of the interesting jobs, of the jobs that allow a person to grow

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<sup>2</sup> Vella, F. (1993). Gender Roles, Occupational Choice and Gender Wage Differential, *The Economic Record*, 69 (207): 382.

and to advance”.<sup>3</sup> Furthermore, women receive less employer supported training than men.<sup>4</sup> If discrimination affects less educated women more than higher, (either because they are less able to argue for fair treatment or have less bargaining power, or because their employers and fellow workers are less sensitive to issues of fairness) then discrimination too would contribute to a higher rate of return to investment in education for women than for men.

The literature<sup>5</sup> suggests the following specific factors may contribute to higher returns for women to investment in education: Many of these are not reflected in our modified method. Two such factors are job experience and career interruptions.

*Experience:* Men have more job experience than women, and this factor explains in part their higher wage or salary rate. Where data on job experience is lacking, the age, or age from school graduation, is used as a proxy measure, though this measures only potential experience, potential under the assumption that there had been no breaks in paid work experience since graduation. It also assumes that the schooling was undertaken in one continuous set of years. Both these assumptions tend to be weaker for women than men because mainly of work interruptions on account of child rearing. Usually, no direct measure of experience is available. The relationship between age and income is nonlinear, with income increasing with age up to a certain point, then levelling off or falling. The turning point in this curve, and the curve's height, varies with the level of education and gender.

*Career Interruption:* Women are much more likely to interrupt their careers for family reasons (usually the care of young children) than men. During such work absences, promotions may have been missed, and training opportunities lost, along with certain job skills. Such disruption of career is therefore alleged to result in a lower wage or salary rate on return to a paid work situation, than would have been the case had their been no career interruption. Women with lower education levels tend to be much more likely to drop out of the labour force for family reasons than women with higher levels of education. For this reason, the return to investment in education will be higher for women than for men.

**Female-male differences in job experience, education experience and career interruptions affect less educated women more than highly educated women.**

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<sup>3</sup> Bergman, B.R. (1989). Does the Market for Women's Labor Need Fixing, *Journal of Economic Perspectives*, 3 (1): 43-60.

<sup>4</sup> *Ibid.*, p. 45.

<sup>5</sup> These factors and others are discussed in Gunderson, M. (1989). Male-Female Wage Differentials and Policy Responses, *Journal of Economic Literature*, XXVII: 46-72.

The result of a greater return to investment in education realised by women over men is found in several other studies when the standard methods are used. One exhaustive review of the literature found such a result in studies for Germany, Brazil, Columbia, Greece and New Zealand,<sup>6</sup> although there were some exceptions. The author of this study notes “In fact such results are not surprising since it is not the absolute earnings of men and women that are under comparison in a rate of return calculation, but the absolute earnings of more and less educated *women*”.

This means that the selection of less educated women to be the reference group for measuring women's returns to education can be very controversial. *What should the reference population be for such an indicator?*

**The reference group problem is illustrated by the example of female-male earnings differentials.**

Another kind of reference group problem is also important. The measure we obtain for women and men on a given variable, earnings being an excellent example, can depend strongly on the compositions of the groups of women and men involved in the measurement. Since certain aspects of composition influence the measure, statisticians tend to want to hold these aspects constant when comparing men and women. In the case of earnings, statisticians have popularized the use of full-time full-year employees when measuring the earnings differential between men and women. However, that, in fact, is a deliberate choice of reference group.

Now if certain societal forces tend to make women less likely than men to be full-time full-year workers, we cannot understand, or even observe, the operations of those forces in determining women's economic status by limiting our analyses to full-time full-year employees. The limitation then becomes more than a statistical convenience. It takes on the force a paradigm, a lens that filters out certain classes of factors as being irrelevant to analysis before we even begin the analysis. To what extent are women, men and society being well served with this sort of paradigm, or reference group selection? The answer to this question may quickly take us into the realm of ideology.

In short, decisions regarding the appropriate reference group are fundamental to the nature of the indicator produced and how it varies over time. We come, therefore, to the following question. Who, or what group or body, should have the responsibility of making such decisions, and defending them publicly if required? Or is the decision best made by seeking a consensus among interest groups, or allowing it to emerge from interest group competition?

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<sup>6</sup> Pasacharopoulos, G. (1973). *Returns to Education: An International Comparison* (pp. 68-69). San Francisco: Jossey-Bass.



## *How Should the Measure of Equality be Designed?*

Agreement about the variable to be observed for measurement of gender equality, and about the relevant reference groups, still leaves us with a wide variety of choices concerning the mathematical and statistical properties of the measure of equality. This variety takes us into a world where alternative formulas can give different patterns of variation among population groups, or over time in the same population group. Unfortunately, this can quickly open up opportunities for indicators to show what we want them to show.

For example, in *Economic Gender Equality Indicators* we wanted to take into account certain differences in composition between the male and female populations when comparing mean incomes. We were required to reject the approach of choosing specific reference groups, such as full-time full-year employees with specific occupations and family compositions. The method we chose was a derivative of the technique of direct standardization in demography. It can be explained very simply with the following example.

**An example of how to take into account differences in composition between female and male populations when comparing mean incomes.**

The process of taking into account these special concentrations of women can be illustrated with one of the factors – age. Women are more highly concentrated at the older ages than men.

Suppose we broke age into 10 categories and calculated an average income for women in each category. Add those 10 averages and divide by 10. The result would be the same as the overall average income for women *if* women were equally distributed among the 10 categories.

Now repeat the process for men. The result is that we have two averages, one for each sex, where it is assumed that each sex has a population that is equally distributed over the 10 age categories.

Now calculate the ratio of the female to the male averages, to get a new “adjusted” gender equality index. Because men and women are not, in fact, equally distributed over the 10 age categories this new index is an artificial number. *However, the difference between this new index and the one originally computed (the unadjusted index) gives you an idea of how far the gender gap would close if the populations of men and women were each equally distributed over the 10 age categories.*

Hence the purpose of the calculation is to test the extent to which certain distributional differences between the male and female *populations* might explain the gender gap indicated by the unadjusted index.

The only difference between the illustration just given and what was done for the *Economic Gender Equality Indicators*' report is that the calculation makes use of five variables simultaneously: age, occupation, education, employment status, and presence of young children.

Using those five variables broken down into selected numbers of categories, we conducted the same kind of computation as that cited above in the illustration. But now instead of 10 age categories we have as many as 1,536 categories (multiply 4 by 16 by 4 by 3 by 2). However, we consider only those categories in which there is a non-zero income average. So, in any region where there are only 800 (out of the possible 1,536) categories with non-zero income averages we add them and divide by 800.

In effect, the “adjusted” index values assume that the populations of women (or men) each have equal distributions over the selected categories of the listed variables *all taken simultaneously*, provided that we consider only categories that actually had people in them. When we speak of having “equalized the distributions” of men and women, in arriving at the adjusted index values, this is the sort of equalization that is meant.

Thus, the adjusted index value is an artificial number. By itself it has no substantive interpretation. However, the difference between its value and the unadjusted index gives you a rough and ready way of gauging how far the gender gap would close if men and women had “equal distributions” with regard to the variables listed above.

What we want to note here is that this way of taking into account the differing distributions of the male and female populations on selected compositional variables is very different from multiple regression strategies that are common in the economics literature. There sex would be a variable among many in a regression model, and what would matter is the coefficient for sex when all the other variables are held constant. This is the general idea.

The point to emphasize here is that we might have produced different patterns of variation in the measure of gender equality depending on the mathematical and statistical properties of the procedures used to take into account the gender differences in population composition.

We must also take note of the ages-old problem of arbitrary selection of weights in designing index numbers. A clear case of this sort arises with the measure of gender balance in work *pattern* that was developed for *Economic Gender Equality Indicators*. Here is an exposition of the measure.

The balance index used was, for the sake of simplicity, based on the paid work and unpaid work indices. Let us call “PWI” the paid work index, and “UWI” the unpaid work index. The balance index is obtained by applying the following formula:

$$[ 0.5 * \text{Abs}(1 - \text{PWI}) + 0.5 * \text{Abs}(1 - \text{UWI}) ],$$

where “Abs(x)” means the absolute value of x. Thus “Abs(1-PWI)” means the absolute value of the one minus the paid work index. Since either index (PWI and UWI) can be less than or greater than 1, the Abs(x) function allows you to ignore the direction in which the index deviates from 1 (the position of complete balance). The balance index simply averages the two deviations, and is a summary measure of the gender gap in work *pattern*, an important supplement to the summary measure of the gender gap in work *load*.

As is well known, because market valuations reign in paid work but not in unpaid work, while the latter is as crucial for social well-being and cohesion as the former, the policy implications of a major gap in work *pattern*, as indicated in the balance index, are quite substantial. We can use the balance index to judge whether, over time, work patterns are becoming more or less gender-balanced.

With total workloads being extremely similar between men and women, the gender-balance in work *pattern* is *the* area of key concern for the improvement of women’s status. Policy may work to improve the balance, or it may work to make the work-valuation systems within the two domains more comparable, or both.

It is quite apparent that both the mathematical structure of the measure and the weights used were subjects of professional judgment. There is a potential for different patterns of variation to be shown by altering structural aspects of the measure, or the weights.

### *Overall Measure of Gender Equality?*

Is there value in seeking a GDP-type summary (or overall) measure for gender equality? We state this question in case there may be interest in discussing its aspects in the symposium.

### *Should Perceptual or Subjective Indicators be Used to Complement Objective Indicators?*

This is a very important question. The interpretation of objective indicators often requires that ‘experts’ make judgments about the

circumstances of the people to whom the measures pertain. Those judgments could present a very different picture from the one that emerges when the people themselves are asked to offer their perceptions of their circumstances.

For example, should indicators be produced that would highlight female-male differences in the perceived satisfaction with various dimensions of life experience? These dimensions might include the perceived safety when walking alone at night, perceived satisfaction with income (to complement an objective gender income equality indicator, for example) or perceived overall happiness or well-being.

## **How Should the Indicators be Displayed?**

### *What Information About the Source Data and the Design of the Indicators Should be Provided?*

Information on the source survey and sample, definitions of component sub-populations, formulas and methods for indicators, are often required if one is to understand fully what an indicator is measuring, and why it shows a certain pattern of variation. It is clearly desirable to reveal such information as a matter of principle. In practice, however, only a handful of specialists are likely to know how to interpret the information. There is, here, a major challenge to make the indicator construction process more transparent in ways that the public can comprehend.

### *Should Indicators Using Alternative Data or Methods be Produced to Complement the Main Indicators, Even at the Expense of Producing Conflicting or Confusing Information?*

In some cases alternative data or methods yield different results which may call into question the validity of the chosen indicator. In other cases different data or methods yield consistent results. The interpretation of the results of alternative indicators could present serious problems. What type of interpretive notes should be provided along with the indicators?

### *Should the Literature Regarding the Determinants of the Indicator be Summarized so as to Aid in Interpreting the Results, and to Help in the Policy and Program Design Process?*

In the case of income inequality by gender, there exists a large literature regarding why the inequality exists or persists. Often there are competing theories with very different implications for public policy. Should this literature be summarized so as to help the policy maker and help the analyst interpret the results, or would such explanations only confuse the issue?

### *When Should the Reasons for Changes in the Indicators be Investigated and Reported?*

When the indicators are moving in a direction opposite to that expected by policy makers, the need to analyze reasons for the changes may be irresistible. Analysis is also needed when the indicators are moving in expected directions but for reasons that are contrary to popular belief, or for reasons that are not well understood or are subject to challenge. Generally, what to do about the changes may not be discernible without analysis of the changes.

### *What Should the Reliability Standard be, How Should Reliability Information be Presented, and Should Data for Jurisdictions Not Meeting the Standard be Dropped?*

For example, in some cases the coefficient of variation of estimates used in the formation of an indicator is such that the estimates would be considered too unreliable to publish by Statistics Canada's current standards. Yet the inequality between women and men might be so large and consistently revealed in different sub-populations that it would seem not in the public interest to suppress such an indicator.

Also, there is the inevitable pressure to show data for all jurisdictions if data for any of them is revealed. However, the implications of yielding to this pressure, when there is wide variation among the jurisdictions in the variability, or potential bias, of the patterns have scarcely been explored to date. Lurking behind this general concern is the following practical question. Should estimates based on small samples of smaller provinces be suppressed if they do not meet the normal criteria for release of statistics?

### **What are the Technical Hurdles to Integration of Gender Into Prominent Accounting Systems?**

We have totally lacked the time needed to explore this important question. It cannot be ignored, and is stated here as a possible stimulus to useful discussion in the symposium. That discussion may take up questions such as the following. What would be the nature of a more gender-sensitive GDP? What would be the nature of a more gender-sensitive General Progress Indicator?

## Concluding Comment

As we emphasized at the outset, this document is not a conference paper in the ordinary sense. We have set forth no central issue. Thus there is no thread of argument running through the paper, and to which we can now offer a central conclusion to end the paper. Rather this document is a collection of mini-discussions that are designed to be stimuli, or teasers, of hopefully fruitful discussion and recommendations in the symposium.

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# **New Challenges in the Improvement of Gender Statistics<sup>1</sup>**

Background paper

by

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<sup>1</sup> Paper presented at the meetings of the International Institute of Statistics, 31st Session, Istanbul, Turkey, August 18-26, 1997.

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## Gender Statistics – A Field with Specific Characteristics

In the last 20 years, production and dissemination of gender statistics have improved significantly. Gender statistics has evolved as a field with specific characteristics – data collected on the basis of concepts and methods that take in consideration women’s and men’s roles and situations in all spheres of society, and presented and analysed to reflect gender issues. An international network of statisticians and users has developed a common strategy on how to produce and disseminate gender statistics and a number of national statistical offices have launched important efforts in this field and adopted international recommendations.

Initial efforts have concentrated on a better use of already existing data. through the development of user-friendly statistical products and a wider dissemination of statistics to reach all interested users – especially policy makers. Much has also been achieved in the improvement of concepts and definitions recommended at the international level and in the development of more suitable ways of data collection – formulation of questions, use of an appropriate language, training of the enumerators, among other aspects regarding data collection instruments.

Today work on gender statistics is not only focused on data presentation and dissemination but regards more than before the improvement of data collection to address data gaps. Moreover, there is wider recognition that biases and data gaps apply to men as well as women – especially on men’s roles in the family as husbands and fathers and in their roles and responsibilities in the household – and that gender statistics concerns women and men to the same extent.

Some problems of data quality and some data gaps identified when work on gender statistics started are still unresolved and some new areas generally not included in the production and analysis of official statistics have only begun to be explored. This paper addresses some of these old and new challenges for gender statisticians.

## Measurement and Valuation of Paid and Unpaid Work

The collection, analysis and dissemination of data on women’s and men’s actual contributions to society and their working conditions is among the crucial areas where improvement in gender statistics is most urgently needed. To this end, the Platform for Action adopted by the Fourth World Conference on Women in Beijing 1995, recommends the improvement of data collection on the full contribution of women and men to the economy and the development of ‘a more comprehensive knowledge of all forms of work and employment’. The areas of work can be summarised as follows:

**Initial gender statistics efforts have resulted in better use of available statistics.**

**The Fourth World Conference on Women in Beijing 1995 states the need for improved gender statistics.**

**Measure the full contribution of women and men to the economy.**

- Measurement of unpaid work already included within the production boundary of the System of National Accounts (SNA). This includes the production and storage of agricultural products and other primary products in the household for own consumption, the processing of primary products and other kinds of processing (weaving clothes, production of pottery, etc.).
- Measurement of unpaid work not included in the production boundary of SNA. This includes caring for dependents, rearing and educating children, preparing meals, cleaning and decorating the house.
- Measurement of women's and men's participation in the informal sector, identified by the 1993 ILO Resolution as household enterprises owned and operated by own-account workers or employing a few employees (below a given limit) and usually not registered.
- Measurement of women's and men's working conditions, in terms of occupational segregation, wages, and career opportunities.
- Measurement of unemployment and underemployment, in terms of adequacy of time worked and income earned.

The paucity of data on these areas is given by a number of factors:

**Existing concepts, definitions, classifications, measurements and analysis must be reviewed.**

- First, national statistical authorities often delay the adoption of international standards and recommendations.
- Second, given the complexity of women's work, where paid and unpaid activities, within and outside the production boundary of SNA, overlap, it is very difficult to accurately measure their situations with conventional data collection methods, even when concepts and definitions are adequately set.
- Third, conventional methods of data collection do not usually capture most people, working in the informal sector, where activities are often home-based and not registered and therefore difficult to be measured through conventional labour force or establishment surveys.
- Finally, ways of classifications and data compilation and analysis on occupations and wages do not adequately reflect differentials between women and men.

## Measurement of Poverty and Access to Resources

The persistent burden of poverty on women and the inequality in women's and men's access to economic structures and resources have been recognized as major obstacles to the full empowerment of women and to sustainable development in countries.

Although some definitions of poverty have been discussed and suggestions provided on the calculation of the poverty line by international agencies (for instance, the World Bank and OECD), there are in practice no standard methods for the measurement of gender differentials in poverty.

Poverty is determined not only by a low level of income and productive resources, but also by the lack of access to social services – such as housing, education and health care. Methods and criteria for the measurement of poverty should therefore be based on all these dimensions and consider different concepts of poverty to be applied to countries with a different level of development. In order to assess the different extent to which women and men are affected by poverty, data collection and analysis should focus on individual access to social services and intra-household food and resource allocation.

**Measurement of poverty should focus on both economic and social conditions.**

## Household Data and Gender Roles in the Household

The traditional approach of studying households' characteristics through the household head is inadequate to understand household typologies, intra-household resource allocation, living arrangements and women's and men's roles within the household.

The number of dependent children, the presence of different generations or of more than one family nucleus and all other characteristics and living arrangements largely affect people's living conditions and need to be considered in data collection and analysis. Also, members of the same household have different socio-economic characteristics and may not equally share resources and responsibilities.

**Make women's and men's sharing of responsibilities and resources visible on equal terms in statistics on various types of household.**

A first step in the development of a full understanding of household characteristics is to study household composition on the basis of the number, sex, age and relationships of the members, along with other socio-economic aspects. Also, family relationships outside the household – such as children living apart from their biological parents – should be considered.

Moreover, indicators on women's and men's roles within the household and on sharing of responsibilities may be derived from time use surveys. These data allow the analysis of gender roles within the family and a study of how these change with age and family composition, with the type of employment, and with other socio-economic characteristics of individuals.

**Give priority to data on women's and men's morbidity and access to health care.**

## **Morbidity and Access to Health Services**

Data on gender differentials in morbidity and causes of mortality are very scarce and seriously limit research and policy formulation in these areas. The paucity of data on these topics is mainly due to poor vital statistical systems in many countries and to a traditional approach in research design that has not given priority to gender differentials, although these are essentials in these areas especially because they involve both biological and social differences.

## **Violence Against Women**

Violence in all its forms is very difficult to quantify and measure. However, domestic violence and violence against women appear to be the most unreported crimes. And even when violence is reported, ways of recording data are very often inefficient. For example, the relationship between the victim and the perpetrator is generally not reported, making it impossible to distinguish intimate assaults from those perpetrated by a stranger.

Collection of information through surveys is also very complex, since people are very reluctant to talk about violence they have suffered, especially when this is inflicted by a family member. The quality of the information collected varies significantly with the way the question is formulated, the level of training of the interviewer and the presence of other family members during the interview.

## **What Needs to be Done**

As identified by the Beijing Platform for Action and by a number of other international conferences in the recent years, gender analysis and the mainstreaming of a gender perspective are indispensable in policy development and in the implementation of programmes.

The main needs for the improvement of gender statistics are as follows:

- Make the whole official statistical system gender-sensitive. A gender perspective should be integrated in all traditional statistical fields. All producers of statistics should be sensitised to gender issues.

**Mainstreaming of a gender perspective in all policy areas requires a gender-sensitive official statistical system.**

- Ensure that statistics related to individuals are collected, compiled, analysed and presented by sex and age, and reflect problems, issues and questions related to women and men in society
- Ensure the regular production of a gender statistics publication suitable for a wide range of non-technical users and prepare statistical outputs that integrate statistics from various fields.
- Ensure that users and producers of statistics regularly review the adequacy of the official statistical system and its coverage of gender issues, and prepare a plan for needed improvements, where necessary.
- Produce regularly at the national level a basic set of gender-sensitive social and economic statistics and indicators for international comparisons covering statistics on population and household, health, education, time-use, childcare, gainful employment, wage, salary and income, violence and crime, and power and influence.
- Ensure the adoption by countries of international standards and definitions and a wider dissemination of existing guidelines and manuals for the improvement of data collection.
- Develop new guidelines on the collection, compilation and analysis of data on morbidity, household characteristics, violence and other social topics where serious gaps have been identified.
- Ensure international co-operation to assist national statistical offices, through training and technical advice, in the improvement of data collection on women's and men's work. This implies introducing new types of surveys or revising existing data collection instruments to cover time-use, unpaid work, the informal sector, home-based work, family labour, unemployment, salaries and wages.
- Develop methods for the valuation of unpaid work within the System of National Accounts and for the assessment of the contribution of the informal sector to the total production.
- Promote research in the area of measurement of poverty and analysis of gender differentials in poverty, including the study of intra-household resource allocation.
- Ensure assistance to national statistical offices to improve data on household characteristics and gender roles and provide international guidelines for data collection, compilation and analysis in this area.

**Progress will require close and continuous contact between data users and producers of statistics.**

**Methods for the valuation of unpaid work should be developed.**

## Summary

Improvement of statistics is still needed in a number of areas, especially those identified by policy makers at the national and international levels as crucial in the achievement of sustainable development. This paper discusses the challenges that gender statisticians face today in the development of a gender-sensitive statistical system.

The area where changes are most urgently needed is the measurement of women's and men's work and working conditions – especially those forms of work that do not fall within the conventional schemes generally adopted in countries when work is seen as formal paid employment. Important as a basis for formulation and monitoring of policies is also the assessment of the actual contribution of unpaid work and informal work to the national product, for which guidelines are needed. Other important areas are poverty and access to resources, vital and morbidity statistics, household data and gender roles within the family, and violence.

## Biographical Notes of Speakers

### Chairperson for Thursday

Florence Ievers  
Co-ordinator, Status of Women Canada

Florence Ievers is the Co-ordinator of Status of Women Canada, the federal government agency which promotes the equality of women.

Ms. Ievers has had a diverse career at the federal and provincial levels as well as in the private sector. Her previous experience includes working as a lawyer in Quebec City; briefly as Secretary and Legal Counsel with the Advisory Council on the Status of Women; Associate Chief of Staff to the Minister of International Relations and Canadian Intergovernmental Affairs, Government of Quebec; and Assistant Secretary, Intergovernmental Affairs in the Privy Council Office of Canada. She has served as Executive Assistant to the President of the Treasury Board. For a number of years, Ms. Ievers served as a part-time member of the Canadian Advisory Council on the Status of Women, as well as a member of its Executive. She has served on the boards of a number of cultural and community organizations, including the Somerset West Community Health Centre and Laval University.

### Speakers at the Welcoming Plenary Session

The Honourable Hedy Fry, P.C., M.P.  
Secretary of State (Multiculturalism) (Status of Women)

Hedy Fry, a native of Trinidad and a medical practitioner, was first elected as the Member of Parliament for Vancouver Centre in 1993, and appointed Secretary of State (Multiculturalism) (Status of Women) in 1996.

Dr. Fry's deep concern for the welfare of the community has been reflected in her involvement in various areas of the medical profession where she occupied such positions as president of the B.C. Federation of Medical Women (1977). She was president of the Vancouver Medical Association in 1988-89, and of the British Columbia Medical Association in 1990-91, and chaired the Canadian Medical Association's Multiculturalism Committee in 1992-93. She obtained her medical degree from the Royal College of Surgeons in Dublin, Ireland.

Mel Cappe  
Deputy Minister/Chairperson  
Human Resources Development Canada

Mel Cappe became Deputy Minister, Human Resources Development Canada and concurrently Chairperson, Canada Employment Insurance Commission and Deputy Minister of Labour on July 2, 1996.

Mr. Cappe joined the Public Service of Canada in 1975 and held economic and policy positions in the Treasury Board Secretariat and the Department of Finance before joining Consumer and Corporate Affairs as Deputy Director of Investigation and Research in 1982. He later held the positions of Assistant Deputy Minister, Competition Policy; Assistant Deputy Minister, Policy Co-ordination, and Assistant Deputy Minister, Corporate Affairs and Legislative Policy in that department. He returned to the Treasury Board Secretariat in January 1990 as Senior Assistant Secretary and was appointed Deputy Secretary, Program Branch, in April 1990. Mr. Cappe was appointed Deputy Minister of Environment Canada on May 9, 1994.

Born in 1948, Mr. Cappe has a Masters degree in Economics from the University of Western Ontario and did doctoral work at the University of Toronto.

Ivan P. Fellegi  
Chief Statistician of Canada  
Statistics Canada

Ivan Fellegi was appointed Chief Statistician of Canada in 1985 and has been leading since that time what is ranked by *The Economist* as the best statistical office in the world. He has served the Agency since 1957 in positions of increasing responsibility. He has chaired the Conference of European Statisticians of the United Nations Economic Commission for Europe (ECE) (1993-97). He has been President of a number of statistical bodies including the International Statistical Institute, the International Association of Survey Statisticians, and the Statistical Society of Canada. In 1978 he was seconded to the Commission on the Reorganization of the US Statistical System, established by President Carter. He has been the Chairman of the Board of Governors of Carleton University (1995-97), which conferred upon him its first Ph.D. in 1961, and is Vice Chairman of the Board of the Canadian Institute of Health Information. Dr. Fellegi holds the Order of Canada, La Médaille de la ville de Paris, an Honorary Doctorate of Law from Simon Fraser University and an Honorary Doctorate of Law from McMaster University. He is an Honorary Member



of the International Statistical Institute and an Honorary Fellow of the Royal Statistical Society. Also in 1997, he was awarded the Gold Medal by the Statistical Society of Canada and awarded the Robert Schuman medal by the European Community. He has published extensively on statistical methods, on the social and economic applications of statistics and on the successful management of statistical agencies.

## Keynote Speakers

Jane Friesen  
Associate Professor of Economics  
Simon Fraser University

Jane Friesen is an Associate Professor of Economics at Simon Fraser University. Her research interests include the effect of labour market policy on labour market outcomes, the determinants of work schedules, and the role of women in the labour market. Her most recent publications measure the impact of advance notice and severance laws on the Canadian labour market and examine the role of part-time work in firms' adjustment strategies. She is currently engaged in research examining the effects of Employment Insurance, overtime pay regulation and minimum wages on various aspects of the labour market.

Monica Townson  
Monica Townson Associates Inc.

Monica Townson is an independent economic consultant working in the field of social policy. She has spoken and written extensively on the economic situation of women, as well as on issues relating to retirement and pension policy. She has been a consultant to the United Nations Economic Commission for Europe on the economic role of women and has participated in international seminars as an expert on both pensions and parental leave. She chaired the Ontario Fair Tax Commission, which reported in December 1993 with recommendations on tax reform for the province. And she is currently the Chair of Statistics Canada's Advisory Committee on Social Conditions.

Margaret Dechman  
Nova Scotia Advisory Council on the Status of Women

Margaret Dechman is a researcher with the Nova Scotia Advisory Council on the Status of Women. She has worked for the Nova Scotia government

for many years in positions that have provided substantial experience with interdepartmental and multidisciplinary committees on women's issues. Prior to coming to the provincial government, Margaret worked as a research associate with the Institute for the Study of Women at Mount Saint Vincent University. Her research background is varied including issues such as family structure and child development, technological change, and employment equity. Margaret is currently co-ordinating the follow-up of a twenty-year longitudinal study focusing on outcomes for mothers and their children within both one- and two-parent families.

### **Major Address**

Birgitta Hedman  
Head, Gender Statistics  
Statistics Sweden

Birgitta Hedman is Head, Gender Statistics, Statistics Sweden. Formerly, she was Officer and Deputy Head, Unit for Statistical Methods 1965-1976, and later Head of this Unit 1980-1983. Birgitta was a member of the United Nations Statistical Division, New York UN/DTCD, and a Technical Adviser on Statistics on Women in Development 1990-1991. She is Sida Gender statistics consultant in Africa, Asia, Latin America and Eastern Europe 1985- . She has a Ph.D. in Statistics, University of Uppsala, and taught statistics during 1960-1967.

### **Chairperson for Friday**

Hélène Dwyer-Renaud  
Director, Women's Bureau  
Strategy and Coordination Directorate, Strategic Policy Branch  
Human Resources Development Canada

Hélène Dwyer-Renaud is Director of the Women's Bureau, in the department of Human Resources Development Canada. Ms. Dwyer-Renaud has been involved in gender issues for almost twenty years, both in government and community settings. Her extensive experience covers a wide range of areas including women's health, violence against women and women's economic equality.

Ms. Dwyer-Renaud has occupied various positions in policy analysis and development, research, liaison and coordination, contributing to the design

of major Canadian government initiatives pertaining to women's equality such as the Federal Plan on Gender Equality, the government's Gender-Based Analysis Policy, and the Family Violence Initiatives.

Ms. Dywer-Renaud holds a Masters degree in Social Work with a specialization in Social Policy Administration from Carleton University, and a Bachelor of Social Sciences with an Honours in Sociology from Ottawa University.

## Major Address

Selim Jahan  
Deputy Director  
Human Development Report Office  
United Nations Development Programme

Selim Jahan is currently Deputy Director, Human Development Report Office, UNDP, New York. Member of the Core Human Development Report Team which has written the Report since 1992. Formerly, Professor of Economics, University of Dhaka, Bangladesh and Visiting Fellow, University of Cambridge, UK, and University of Maryland, USA and Economic Adviser, Ministry of Planning, Government of Bangladesh. He has a Ph.D. in Economics from McGill University, Canada and is the author of 8 books and more than 150 research papers and articles on various issues of Development Economics. His areas of current research include: poverty, employment, human security, sustainable human development.



# Biographical Notes of Workshop Leaders

## Workshops I and V

### **Theme: Gender equality indicators and gender-based analysis –**

Gender equality indicators serve many users: public policy-makers, interest groups with a stake in broad public issues and those who develop outcome-oriented social and economic indicators. How can available gender equality indicators be used to stimulate more effective use of the principles of gender-based analysis in public policy-making?

## Workshop I

### Chairperson

Isabella Bakker  
Professor  
York University

Isabella Bakker teaches at York University, Toronto, Canada. Her research interests span several areas including gender and macroeconomics, state finance, and changing state forms. Isabella Bakker has published two edited volumes on gender and restructuring (*The Strategic Silence: Gender and Economic Policy; Rethinking Restructuring*) as well as numerous articles on the gender aspects of fiscal policy. She has also maintained an involvement with NGOs and international agencies, writing and lecturing internationally on engendering economic policy and alternative women's budgets. She has been involved in a variety of consultation projects with such diverse organizations as the North-South Institute and the Canadian International Development Agency (both in Ottawa), Status of Women Canada, and the United Nations Development Program in New York.

### Rapporteur

Sheila Regehr  
Economic Policy Coordinator  
Policy Analysis and Development Directorate  
Status of Women Canada

## Workshop V

### Chairperson

Zeynep Karman  
Director, Research  
Status of Women Canada

### Rapporteur

Meg Luxton  
Professor  
York University

Meg Luxton is Professor of Social Science and Women's Studies at York University. She is the author of several books on women's unpaid work in the home. The most recent (with June Corman) is *Getting By in Hard Times: Restructuring Gender and Class in Hamilton, Ontario, 1980-1996*.

## Workshop II

### **Theme: Paradigms implicit in social and economic indicators –**

Various federal projects are now under way to develop social and economic indicators. In what major areas do their underlying assumptions or paradigms about major policy-relevant social and economic variables and their causal linkages diverge or overlap? What opportunities exist to achieve improved “rapprochement” among these projects after their divergences are considered?

### Chairperson

Michael C. McCracken  
Chair and CEO  
Informetrica Limited

Mike McCracken is one of the founders of Informetrica Limited, a Canadian-based economic research and information company, providing long-term national, provincial, and industrial forecasts to companies, governments, and other organizations across Canada and abroad.

He has served as president of the Canadian Association for Business Economics (1979-81 and 1988-90) and Chair of the US Conference of Business Economists (1994). He is Treasurer of The Canadian Employment Research Forum (CERF) and a member of the National Accounts Advisory Committee at Statistics Canada.

## Rapporteur

Margaret Moyston-Cumming  
Health Policy Division  
Health Policy and Information Directorate  
Health Canada

## Workshop III

**Theme: "Best practices" for developing, dissemination, and using gender equality indicators (GEI)** – What are some of the “best practices” used in Canada, selected countries and international organizations for developing, disseminating and using gender equality indicators to support deliberations and work in the private and public sectors, and what barriers impede progress toward improved practices?

## Chairperson

Hélène Massé  
Associate Director General  
Secretariat, Status of Women  
Province of Quebec

Hélène Massé is the Associate Director General of the Secretariat of Status of Women for the province of Quebec. She received her Masters degree in Political Science from the University of Laval, and has worked for the past ten years for the government of Quebec to improve the living and working conditions of women. She coordinates the network of leaders for the Status of Women for more than thirty agencies and organizations. Madame Massé also coordinates the work that links the participation of the government of Quebec with the federal, provincial and territorial ministers of Status of Women as well as at meetings with senior public officials that are responsible for the Status of Women. Since September 1997, Madame Massé has been the co-director for the project “Implementation of gender-based analysis in governmental practices”.

## Rapporteur

Marg Gorrie  
Ontario Women’s Directorate

Marg Gorrie works at the Ontario Women's Directorate as an economic policy analyst. Marg has a Masters degree in Health Sciences and has worked in the field of health care in nursing and policy. Her primary area of interest is women working in health care.

## Workshop IV

**Theme: Technical problems and data gaps for GEIs** – What technical problems and data gaps impede efforts to produce and regularly update a set of comprehensive policy-relevant GEIs for Canada? To what extent can the gender dimension be better reflected in indicators beyond GEIs? What are the barriers?

### Chairperson

Andrew S. Harvey  
Professor of Economics  
Director of the Time-use Research Program  
Saint Mary's University and President of the International Association for Time use Research (IATUR)

Andrew S. Harvey (B.A., Maine; M.A. and Ph.D., Clark University) is Professor of Economics, Director of the Time-use Research Program at Saint Mary's University and President of the International Association for Time use Research (IATUR). Dr. Harvey's research interests cross several disciplines focusing particularly on the study of time-use and the definition, measurement and valuing of human activity. In 1971 he directed a time-space study DOMA (Dimensions of Metropolitan Activity). Since that time he has been heavily involved in the design, implementation and analysis of time use surveys. Dr. Harvey has served as a consultant to the FAO, the UN Statistical Office, UNDP, the World Bank, Statistics Canada and a number of other organisations. From 1992 to 1996 he co-ordinated a project on Time-use and the valuation on non-market production for UN INSTRAW. With funding from SSHRC, commencing in 1994 Dr. Harvey and several colleagues have been exploring the concept of activity settings. He is the author of numerous monographs and articles in a number of areas including time use methodology, social indicators, leisure studies, ageing, gender studies, urban and regional economics and planning, evaluative research, and secondary data analysis.

### Rapporteur

Victor Ujjimoto  
Professor of Applied Sociology  
University of Guelph

Victor Ujjimoto is Professor of Applied Sociology, University of Guelph, and Adjunct Professor, University of Waterloo. His research interests are in social gerontology, ethnic studies, and at present, gender equality in the



airline industry. His work borrows heavily on the time-use methodology which was pioneered by Dr. Andrew Harvey, Saint Mary's University. Victor is an active member of the Social Indicators Research Group and the International Association of Time Use Research.

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