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**DISSEMINATION, MARKETING AND USE OF GENDER STATISTICS**

Disseminating gender statistics: The Canadian experience\*

Submitted by Statistics Canada

**I. INTRODUCTION**

1. Statistics Canada was invited to this workshop to present some of our recent dissemination initiatives for gender statistics. This paper provides some background to the collection of gender statistics in Canada, gives an overview of dissemination projects geared to data users with diverse needs, and then presents two examples from Statistics Canada of recent innovative initiatives to disseminate gender statistics.

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\* This paper has been prepared at the invitation of the secretariat.

## II. CANADIAN CONTEXT

2. The production of gender statistics is the product of some key events in Canadian history that have led to our current understanding of gender equality. That understanding is that women and men have equal conditions for realising their full human rights and potential to contribute to national, political, economic, social and cultural development, and to benefit from the results. The presentation of a report of the Royal Commission on the Status of Women in 1970 was a key milestone in the evolution of the Canadian government's commitment to gender equality. Since 1985, the Canadian Charter of Rights and Freedoms has given legal force to the notion of "substantive gender equality" or equality of outcomes. The Charter recognizes that equal treatment of women and men may not result in equal outcomes. Gender statistics are essential to the evaluation of the equality of both treatment and outcomes.

3. In the wake of the Beijing Platform for Action signed at the Fourth United Nations World Conference on Women in 1995, there has been an increased demand for gender statistics and gender-related research in Canada. A continuing priority outlined in the 1995 Federal Plan for Gender Equality is the achievement of women's economic equality by enhancing women's economic autonomy and well-being. One important component is the implementation of gender-based analysis (GBA) throughout federal departments and agencies. For Statistics Canada, a key function of gender statistics is to provide the data necessary for gender-based analysis. GBA is a process that assesses the differential impact of policies, programs and legislation on women and men, taking into account their different socio-economic realities.<sup>1</sup>

4. Producing gender statistics is part of our larger mandate. Statistics Canada is charged with the task "to collect, compile, analyse, abstract and publish statistical information relating to the commercial, industrial, financial, social, economic and general activities and condition of the people" (Statistics Act). One of our challenges is finding ways to disseminate data to a wide range of data users with different information needs and varying levels of ability to understand and use data. To assess how well we are doing this, we have six key quality assurance measures at Statistics Canada that act as benchmarks to evaluate how successful we are in all aspects of our work, but particularly at the final stages when the data are made available to the public. These measures are: relevance (how relevant are the data to the current research questions of data users), accuracy (how accurate are the numbers we release), timeliness (how long does it take for us to get the data released after collection), accessibility (how easy is it for data users to access the data), interpretability (how well have we documented the data, concepts and limitations), and coherence (how do the data compare to other data released from Statistics Canada). Whether we disseminate micro-data, custom tabulations, statistical indicators or detailed analysis products, these quality measures govern our work, forming the basis for divisional and departmental evaluations of our performance. It is within this larger context that gender statistics are disseminated.

5. In the following section I show how we work to provide gender statistics and data products tailored to the audience and the needs of data users, with an example from the General Social Survey. The subsequent section of the paper provides a brief overview of the principal ways we disseminate gender statistics, according to the audience, vehicle and purpose of the data. The two innovative projects for disseminating gender statistics that are described in more

detail, highlight dissemination projects that integrate gender statistics with qualitative information with the aim of supporting and providing richer analysis on gender-related issues.

### III. THE USER/PRODUCER DIALOGUE

6. Gender statistics are those that reflect the situation of women and men, taking into account their different socio-economic realities. Statistics Canada has had a long history of producing sex-disaggregated data on many important social and economic issues, including labour force participation, sources of income, household spending, care-giving and receiving, educational attainment, and so on.

7. Statistics Canada produces quantitative data that will be used to provide important and useful answers to many questions. For this reason, early consultation with policy departments, academics and non-governmental organizations is critical to the process of providing gender statistics. It is during this dialogue process that the theoretical basis for data collection is established and feedback is received on the development and testing of survey instruments. The benefits of having national level data on issues for which results can be generalized across the population are clear. In those instances where quantitative data are limited in explaining certain phenomena, Statistics Canada relies on policy departments and other researchers who have qualitative information, experts and the body of literature in the area to explain the findings.

8. A specific example from the Social and Aboriginal Statistics Division is the General Social Survey, which has included cycles on:

- (a) Victimization, with detailed information on spousal abuse (this will be presented in more detail in a separate paper);
- (b) Time use, with information on time spent in child-care and unpaid work, as well as measures of time crunch, stress, health, and life satisfaction;
- (c) Social Support and Aging, with information on unpaid care-giving of the elderly and the impact of providing care on the care-giver's labour force participation, health, relationships;
- (d) And more.

9. Looking specifically at the development of the 2007 questionnaire on Family, Social Support and Retirement, we find a good illustration of the importance of the user/producer dialogue in producing gender statistics with dissemination in mind. The development of this questionnaire has just been completed and the survey was pilot-tested in preparation for the main collection starting in January 2007. Since the GSS is cyclical in design – meaning we return to topics about every five years – this cycle is returning to the topics of aging, care-giving and retirement which we asked about in 2002. We also are mandated to respond to emerging social issues, so new content was developed to respond to questions that have arisen since 2002.

10. To understand the issues we should address in 2007, we met individually with several policy departments, consulted with academics that are experts in the area, met with other survey managers and analysts at STC, and reviewed the literature on this subject, including work being done internationally. Those we consulted clearly identified gender-related social and economic

contexts to consider in the questionnaire design. For example, the design was to allow researchers to answer questions such as: have women taken more interruptions from their work histories to care for family than men, and what are the implications of taking these interruptions on being financially prepared to retire? To what extent do spousal influences affect retirement decisions? What are the health and family impacts of care-giving responsibilities? . . . and so on. Like the GSS, for many Statistics Canada surveys, the user/producer dialogue is helping to build gender into the surveys early in the process. Once the data are ready for dissemination, the early thinking and consultation mean that GBA by policy departments is possible.

#### IV. DISSEMINATING GENDER STATISTICS

11. This section briefly describes three main ways Statistics Canada disseminates gender statistics: data tables, microdata files, and analytic products. First, our primary dissemination vehicle is our website, [www.statcan.ca](http://www.statcan.ca), and more specifically, all new data and data products are disseminated through STC's *Daily*, an electronic release bulletin which is found on our website. We disseminate sex-disaggregated data tables on a wide variety of social and economic topics. These tables include both statistics and indicators<sup>2</sup> and can be found through links on the *Daily*, or after their release on the STC website under "Canadian Statistics" (free), or under CANSIM II, Statistics Canada's socio-economic database, for a small fee. Custom tables can also be purchased directly from subject matter divisions. These tables are prepared with policy-makers and the general research community in mind, so the tabular information is ready to use, usually broken down by geography (province, larger cities, urban/rural), age and other key variables related to the table content. As such, they are the basis for much of the gender-based analysis being done across the Canadian federal and provincial governments.

12. One important collaborative initiative of Statistics Canada with Status of Women Canada has been to publish a guide, *Finding Data on Women: A Guide to Major Data Sources at Statistics Canada*. A new edition will be available in the fall of 2006. The guide provides data users with information on where to find sex-disaggregated survey and administrative data, and includes summary background information on these data sources. The new edition will emphasize on-line data availability.

#### V. DISSEMINATING MICRODATA

13. Given the importance of the notion of confidentiality in Canada, Statistics Canada protects micro-data that holds individual level information. Since more statistically savvy data users prefer to use the micro-data rather than rely on pre-specified tables for their research, Statistics Canada has established two main ways of disseminating this microdata. For cross-sectional surveys we have a process of assessing disclosure risk that enables us to protect individuals, while releasing the majority of information to the public. These Public Use Microdata Files (PUMF) are made freely available to all university libraries, and to policy departments through an initiative called the Data Liberation Initiative, and can be purchased by those without university access.

14. Longitudinal data prove more difficult to disseminate, since the addition of information over time makes it easier to identify respondents. For this reason, Statistic Canada has established Research Data Centres (RDC) across the country where academics and government researchers can access longitudinal micro-data, as well as many full cross-sectional data files. To access the RDC's, researchers go through a proposal approval process and are sworn in as deemed employees of Statistics Canada who must comply with the requirements of the Statistics Act. For academics, access to these microdata files allows them to research questions using much more complex, multivariate methods. An example of a gender-related research project approved through the RDCs is one that examines the care-giving roles and impacts of caregiving for Canadian men and women across different ethnic groups.

15. In some cases, the data prove too sensitive to be released in either a public use file, or an RDC. In these cases, all manipulation of microdata occurs within Statistics Canada. That is the case for products disseminated from the Longitudinal Immigration Database (IMDB), for example. This database brings together immigrant administrative information at the time of gaining permanent residency in Canada, with tax information for 16 years after they first gain permanent residency. Since linked longitudinal information is deemed too sensitive to be released except in aggregate form, all analysis and data products are produced by Statistics Canada analysts. Standard summary tables using these data show, for example, the percentage of immigrant men and women who relied on social assistance income in a given tax year. These data are used by the federal department responsible for immigration, as well as the network of researchers doing immigration research across the country.

## VI. DISSEMINATING ANALYSIS

16. While our main objective is to produce the information needed by policy departments who will use that information for gender-based analysis, we also have an active analytic program that collaborates with policy departments and researchers in the analysis of sensitive data, as well as the development and dissemination of statistical indicators. Since Statistics Canada is governed by the Statistics Act and other related acts<sup>3</sup> which protect the privacy of Canadians and the confidentiality of their information, it becomes essential to have collaboration and consensus-building between Statistics Canada, other government ministries at the provincial and municipal levels, as well as academic researchers and community groups to achieve effective dissemination of information addressing matters of gender equality.

17. So, a third dissemination vehicle for gender statistics is through analytic products. The complexity of the analysis is again determined by the audience, and ranges from fairly descriptive articles geared to high school level, to very statistically sophisticated analysis for experts in the field. While our mandate at STC does not include policy or program recommendations, the analysis we do is driven by questions arising from ongoing or emerging social and economic issues, and often provides the basis for policy departments in developing evidence-based policy. Our five flagship publications often feature analysis of issues for which gender is an important factor. Articles on the gender wage gap, the feminization of work, and access to childcare illustrate the kinds of work published in our flagship publications.

18. In addition to the ongoing publications, Statistics Canada supports a number of occasional analytic publications geared to a broad audience. One of these occasional publications, published every five years since 1985, which is produced by the Social and Aboriginal Statistics Division most recently this year, is a compendium of descriptive tables with analysis called *Women in Canada*. Looking at changes over time, the main chapter themes covered include population estimates, family status, health, education, paid and unpaid work, income and earnings, women and the criminal justice system, Aboriginal women, immigrant women, women in a visible minority, senior women, and women with disabilities. This publication brings together information from a wide range of data sources across the organization into one publication that presents the data along with analysis to explain the numbers to those with limited quantitative skills or with limited access to detailed STC databases. The audience for this product includes government policy departments across several levels, researchers, community organizations and non-governmental organizations.

19. Other analysis geared more to the research community involves more technical, econometric methods to develop indicators or to address questions using data that is too sensitive to be released to researchers outside of Statistics Canada. These analyses are published within Statistics Canada's analytic series or in academic, peer-reviewed journals. Once a year, Statistics Canada hosts a Socio-Economic Conference that provides an opportunity for analysts and researchers to disseminate the results of their research to the wider policy and research community. Sessions in the 2006 Socio-Economic Conference included papers on: Gender effects in transition from Elementary to Middle School; Widowhood: Consequences on income for seniors; Gender differences in risk aversion and labour market behaviour, among others.

## VII. NEW INNOVATIONS IN DISSEMINATING GENDER STATISTICS IN CANADA

The Gender and Work Database<sup>4</sup> – Making data accessible:

20. A few years ago, several researchers from York University approached Statistics Canada about working together to provide a new research tool for researchers interested in gender and work. This project, funded by the Canadian government, was a collaboration that eventually included approximately 50 faculty, postdoctoral fellows and graduate students from across the country as well as researchers internationally, and representatives from the Canadian Labour Congress, unions such as the Canadian Auto Workers union, international organizations such as the International Labour Organization, and Statistics Canada. Statistics Canada contributed to the GWD by advising on the content, producing the data tables, and co-authoring the conceptual guides.

21. The initial questions driving the Gender and Work Database (GWD) were, “How can social science and feminist scholarship be used to transform traditional approaches to using data?”, and “How can we use these new approaches to ground policy analysis and development?” The researchers who conceived this idea wanted to bring together, in this research tool, concepts derived from scholarly research and interactive data that users can look at through the lens of the concepts. To illustrate this bridging of concept and data, the women's movement, who were concerned with social transformation, developed important concepts such

as economic gender equity, but they also collected data that demonstrated that women were systematically paid and compensated less than men.

22. While the GWD may be used to provide vital and gender-sensitive information on a given topic of interest, its larger aim is to relate data to social relations, to the social relations of gender, 'race', 'disability', sexuality and age, to list but a few examples, and to point out intersections among these relations. To do this, it combines original works by social scientists, field-defining concepts, and a large set of interactive data tables conceptualized by experts in the field of gender and work. It provides users with the tools to move within and between different data sources in addressing a given research question.

23. Not everyone who would be using the data would be comfortable with statistical data or know how to use it. Conversely, people who are very familiar with using data often do not critically examine the concepts and methodology behind its collection. A good example of that is the collection of data on unpaid work. The York researchers first had to establish that, though unpaid, it was work with a value, and that we should be looking at data on it. They also had to define exactly how unpaid work should be evaluated – was it about time, was it about the kinds of tasks, was it about the monetary equivalent of hiring someone else to do it? And so on. The questions that are asked and how they are asked then become a key part of the GWD information.

24. The development of the application began by identifying absences or gaps in the existing, publicly available data, and devising new ways of accessing this data. Then, based on theoretical concerns, the research team identified and created relationships between variables not already considered by STC or in the existing literature. They involved experts in the field to assist them in defining both multi-dimensional tables, as well as key concepts and resources. Finally, they began to develop ways to link social science knowledge to methods of dissemination, so that other users might benefit from their findings and the new arrangement and representation of data. As part of this process, the researchers envisioned the tool itself as a meta-level research and teaching tool.

25. The GWD contains the following interrelated modules: gender and work in comparative perspective, health care industry, migration, precarious employment, technology, unions and unpaid work. Each module contains a searchable library including a conceptual guide, a series of analytic papers, citations to papers, and links to relevant theoretical and empirical works, as well as a set of statistical tables. The two sides in the GWD are linked together through a thesaurus that is connected to a search engine. The thesaurus identifies core concepts derived from theoretical literature in feminist political economy and scholarship on gender and work with attention to their interrelationship. A key value of the thesaurus is that it allows one to link the theoretical vocabulary to the statistical vocabulary.

26. The modules are conceptually connected – they are not meant to be separate but rather enable a researcher to focus on a particular area with the understanding that this area is related to other areas. The conceptual guides for each module identify key concepts and themes in the field, strengths and weaknesses of survey instruments, and their relationship to the literature on gender and work.

27. The other side of the database is composed of interactive statistical tables created from custom tabulations run by Statistics Canada, and displayed in Beyond 20/20 format. The statistical tables in the GWD may be used at multiple levels and for different purposes. At a technical level, the statistical tables themselves are being constructed to help researchers navigate complex data-related questions and to illustrate how, and in what ways, data collection and organization is shaped by conceptualization (i.e., to demonstrate that there are multiple ways into statistical data). Researchers have easy access to semi-custom tables that they can customize further for their research.

28. The GWD is bringing together many researchers (beyond the academy and Statistics Canada) and many large-scale research endeavours... helping researchers answer various questions and also disseminating knowledge in new ways. It is a concept that brings together different types of data through a relational approach to research, a research and teaching tool, and finally, a physical infrastructure that represents a collaborative technical effort. Right now most of the GWD site is publicly available, however, the data section is still currently protected by password-only access for academic and not-for-profit researchers, as part of the agreement with Statistics Canada. About 400 researchers have access to the GWD.

#### Women in the Information Society<sup>5</sup>

29. Organized by the United Nations system, the 2003 and 2005 World Summits on the Information Society (WSIS) brought together thousands of participants from government, the private sector and civil society, as well as more than 50 heads of state, in order to better understand the information revolution and its impact on our world. In particular, the Summits have drawn attention to the notions of Information and Communication Technologies (ICT) for development and building an inclusive 'information society,' also known as 'ICT4D' and 'ICT 4 All,' respectively.

30. The first phase of the WSIS was held in Geneva in December 2003. There, the objective was to develop a better understanding of the information revolution and its global impact, with particular emphasis on the developing world. The Summit endorsed ICTs as a means to meet development goals, such as combating poverty, hunger, illiteracy, disease and environmental degradation. As well, the Geneva Summit produced a clear *Declaration of Principles* and a concrete *Plan of Action*. These documents were debated in preparatory meetings prior to the Summit and were adopted by all represented countries at the close of the first Summit. At the Geneva World Summit on the Information Society (WSIS, 2003), governments highlighted the importance of gender equality:

We are committed to ensuring that the Information Society enables women's empowerment and their full participation on the basis of equality in all spheres of society and in all decision-making processes. To this end, we should mainstream a gender equality perspective and use ICTs as a tool to that end (WSIS Declaration of Principles, 12).

31. One of the objectives outlined by these documents included measuring the growth and impact of the information society and reporting the findings at the second Summit in Tunis. ICT measurements and comparative analyses in this area have been extremely scarce. However, an outstanding achievement toward measuring the information society is a major international



research project, co-ordinated by the Network of UNESCO Chairs in Communications in collaboration with Canadian international development agencies and UN bodies. Their efforts contributed to the development of two reports on the 'digital divide,' under the direction of the Scientific Director and Editor, Dr. George Sciadas. The first is entitled *Monitoring the Digital Divide...and Beyond* (2003) and the second, which builds on the first, is entitled *From the Digital Divide to Digital Opportunities: Measuring Infostates for Development* (2005). The research in the second publication quantifies Infostates<sup>6</sup> for most countries in the world, and thus measures the international digital divide, including detailed, policy-oriented analysis across a large number of countries and over time. However, no comparable systematic measurement on the gender aspect has been possible due to a scarcity of data – both in the scope of coverage and the degree of detail available.<sup>7</sup> After the 2003 summit, the lack of information on gender was highlighted, with the result that discussions began on an approach to finding and disseminating this important information. The *Women in the Information Society* chapter represents an attempt to rectify this, to the extent possible at the time.

32. Statistics Canada analysts, Heather Dryburgh and Heidi Ertl, co-authored the chapter in *From the Digital Divide to Digital Opportunities: Measuring Infostates for Development*, that was conceived to address the lack of information on women in the information society (co-authored with Nancy Hafkin and Sophia Huyer, Women in Global Science and Technology). The gender chapter brings together both quantitative and qualitative information to identify the issues and assess the state and trends in women's involvement in the information society worldwide.

33. Although access to ICTs has been widely highlighted as a gender issue, this project recognized the pervasive influence of ICTs in the global economy and society, which meant that equal access for both women and men to ICTs is insufficient to obtain true gender equality. Instead, women need the opportunity to participate equally in, and benefit equally from: i) the design, development and application of ICTs; ii) the use of the information and knowledge generated in the Information Society, and; iii) the opportunities and resources of the Information Society. Thus, the need for reliable and comparable statistical information has become a priority for the international community. WSIS explicitly recognized the importance of sex-disaggregated statistics and indicators, calling for the development of comparable statistical indicators that should incorporate a gender analysis. In addition, WSIS called for the development of gender-specific indicators on ICTs to assess the impacts of funded ICT projects on the lives of women and girls (WSIS Plan of Action, para. 28d).

34. The first part of the chapter relies on an extensive compilation of sex-disaggregated statistical data from international, national, and other sources, to offer a much-needed quantitative analysis of the gender digital divide. A number of difficulties exist beyond the overall problem of little sex-disaggregated international data on ICTs, including the lack of a consistent time series for gender statistics (even among developed countries) and the lack of common definitions and concepts. Nevertheless, the first part of the chapter ultimately provides a 'macro' view of the magnitude and evolution of the gender digital divide.

35. There was clear recognition that in order to address gender disparities in the context of the Information Society more than statistical data was needed. This recognition provided the impetus for the second part of the chapter. The gender digital divide has so many dimensions

and nuances that large amounts of qualitative information were also needed to understand the quantitative findings, particularly on the context of individual circumstances across countries, social norms, histories, and cultures. Therefore, the second part of the chapter contains analysis of a qualitative nature, with in-depth information from field-work experiences, case studies, and anecdotal and contextual evidence. In so doing, it complements well the statistical analysis. Its contents are based on a comprehensive framework that defines the important elements of the main gender issues in ICT (Hafkin (2003a).

36. One of the challenges of bringing the information together was how to present the qualitative data in such a way as to make sense of study findings as data elements contributing to stronger findings when compiled. To do this, we treated the words (findings) as data and brought them together into word data tables for readers to scan. This qualitative evidence supported the analytic work that summarized the results across many studies. Taken in its totality, the statistical and qualitative sections of the chapter offer a more holistic view to the gender digital divide than has been possible until now.

37. The publication was launched during two major sessions at the second phase of the WSIS in Tunis, Tunisia in 2005. The first session was devoted to the entire publication, with a brief presentation on the gender chapter, followed by a second session dedicated to the new *Women in the Information Society* chapter.

## VIII. CONCLUSIONS

38. The dissemination of gender statistics ideally involves a user/producer dialogue that results in products that are tailored to the audience. In Canada, this kind of dialogue has led to the dissemination of a wide range of products that inform gender-based analysis, provide benchmarks for more in-depth qualitative research, and establish the evidence on which policy is made. The two dissemination initiatives described in more detail illustrate the importance of discussion and collaborations that link data to research questions. In different ways, the two innovative dissemination projects discussed in detail combine data and analytic content with key qualitative, contextual information as complementary means for understanding gender issues. The advantages of this approach for gaining a deeper understanding of gender issues are clear: where the numbers tell an important story, the qualitative information often adds rich explanations of those trends and indicators.

## ENDNOTES

<sup>1</sup> Nancy Zukewich, *Gender statistics in Canada* presentation.

<sup>2</sup> Important work has been started on moving beyond statistics toward indicators. Indicators provide a comparative context to the statistic (e.g. women with a characteristic in relation to all women, or in relation to women at an earlier time, or in relation to men, for example) and often measure progress towards or away from a policy goal. Indicators 'would be concise and intuitively meaningful to the public and to decision-makers.' (Neuman, Regehr, Stone, 2004).

<sup>3</sup> The Privacy Act protects the rights of Canadians to keep their personal information private. The Access to Information Act governs the right to information, however, all personal data collected under the Statistics Act are protected from media or others asking for access to Statistics Canada's micro-data.

<sup>4</sup> This section comes largely from a presentation and notes by Krista Scott-Dixon from York University, project manager of the Gender and Work Database. For more detailed information on the structure of the database, visit the website at: <http://www.genderwork.ca/>

<sup>5</sup> This section brings together background information from an internal report to Statistics Canada by Heidi Ertl and Heather Dryburgh, as well as information from the chapter by S. Huyer, N. Hafkin, H. Ertl, and H. Dryburgh (2005), 'Women in the Information Society' in *From the Digital Divide to Digital Opportunities: Measuring Infostates for Development*. (G. Sciadas, ed). Orbicom. <http://www.orbicom.uqam.ca>.

<sup>6</sup> Infostates are indicators derived from many variables, that provide an internationally comparable index of a country's level of ICT development.

<sup>7</sup> Some promising activities are underway. One of them stems from the partnership formed by a number of UN bodies, including regional commissions, the OECD, and national statistical agencies, which aims at closing the gaps in Information Society statistics. The partnerships' objectives include an agreement on a set of core ICT indicators, a construction of a database, as well as the offering of training for capacity-building in developing countries (UNCTAD 2004).