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Topic (ii) Gender equality indicators

**INDICATORS RELATED TO GENDERING MECHANISMS
OPERATING WITHIN A SOCIETY**

Submitted by Statistics Canada¹

Invited Paper

Summary

The work of national statistical offices designed to support indicators and studies of aspects of gender equality needs to have a stronger focus on measuring features of the broad societal forces that constitute gendering in a society. Statistics on attributes and activities of men and women are very important, but they need to be supplemented by those that deal with related aspects of cultural values and of the policies and performance of institutions, in the search for needed insight into key aspects of gendering forces. Attention to this issue is important; because improved knowledge about the mechanisms of gendering will enhance the quality of statistics-based support to policy-making about gender equality and especially to gender-based analysis.

A crucial addition to statisticians' efforts to analyse aspects of gender inequality

Hedman, Perucci and Sundström's 1996 book "Engendering Statistics: A Tool for Change" represents probably the most significant statement of the purposes served by gender statistics. The book contains a lengthy discussion of the principles that should guide statisticians in the development of such statistics. The authors stress the importance of direct cooperation in that development process between (a) groups working to identify gender-based issues and the associated policies, and (b) the statisticians who produce gender statistics.

The authors note that the first major advances in the production of gender statistics were focussed on the status of women and the generation of statistics designed to measure their status relative to that of men. Men's status was treated as the standard. More recently, the focus has been broadened to include men, particularly in Hedman, Perucci and Sundström (1996), thus creating a new centre of interest: statistics on men and women, without the connotation that men's status sets a standard. A key benefit of the broadened focus is the opportunity it provides for improved analysis of the various aspects of equity between the sexes.

This article suggests a third stage of development in the production of gender statistics, consisting in the addition of a new category designed to reflect the societal forces and factors at work in the process of

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differentiating men and women - in a word, "gendering". (Alternative definitions of this term are reviewed below.)

Statistics on men and women and tools for measuring the inequalities between them remain very important, but are not easily applied to profound studies of all of the causes of such inequalities. The forces of gendering are among the main causes of these inequalities.

It would be difficult to develop a solid foundation for policies to achieve greater equity without such studies. The justification for this statement is seen in the fact that policies and practices adopted in the public and private sectors are based on assumptions about the mechanisms of gendering! Studies of aspects of gendering are key sources of scientific critique or support for such assumptions. Note, too, that gender-based analysis pays special attention to assumptions about the causes of gender inequity. It would thus be enhanced by studies of gendering mechanisms within a society.

Consequently, the description and analysis of the societal mechanisms implied in the word "gendering" (as we define it below) are crucial to the support that social scientists provide to decision makers in the public and private sectors.

The notion of "gender". At this point, we should endeavour to clarify what we mean by "gender" and "gendering". A good starting point is the following comment by Hedman, Perucci and Sundström (1996): "A critical distinction needs to be made between the terms sex and gender ... The word "sex" simply refers to biological differences ... [whereas] gender is a social construction ..." (p. 13).

We should also try to clarify the notion of "social construction", at least to facilitate communication with an international audience. Although there are obvious biological differences between the sexes, we observe many other differences between them, as everyone knows.

Let us use the letter B to represent the biological differences and the letter O to represent the other differences. Among societies, there is a wide variation in O; each society develops its own Type O differences between the sexes. Furthermore, as a given society evolves, the composition of O changes, and after several decades the transformation can be striking.

Gendering. Let us move on to the word "gendering". What does this word mean? A clear answer to this question is not common in the scientific literature, at least in so far as a general definition is concerned. However, the following seems plausible: gendering means a *network of mechanisms* used by a society in devising its Type O differences between the sexes.

Alternative definitions of "gendering", most given without their substantial use in theory building, may be found in Hamilton, 1996, p. 3, Tickner, 2001, p. 15., Britton, 2000, and Lengermann et Wallace, 1985, Humm, 1995, p. 107. These authors use the term to point to phenomena observable at a point of time or within a narrow time period, whereas we are pointing to an aspect of human development that stretches over a large portion of any individual life course. With regard to gendering processes during the earliest stages of the life course, Myers uses the concept of "gender schema" to refer to aspects of children's enculturation of boy and girl roles, suggesting some elements of the concept proposed in this paper.

In terms of the concept we propose, when social scientists research gendering, they would try to identify various aspects of the above-mentioned *network of mechanisms*. A key aim of this work would be to improve knowledge of how certain gendering mechanisms function *and* how they interrelate so as to constitute a network that influences personality development over a large segment of the life course, as well as a wide range of opportunities available to men and women.

For example, they would study the forces that produce variations in roles, or systematic differences in behaviour, between boys and girls in a family. Next they would look at the processes whereby educational institutions reinforce the differences between the sexes already created by the family, and add new ones. They would also seek to determine how institutions that provide employment reinforce the differences

created by the family and the educational system, and how they add new systemic variations between the sexes. Finally, they would try to identify and understand the *links* among the gendering mechanisms at work in these three contexts: the institution of the family, those of the educational system, and those of the economy.

No doubt these links will include some cultural values that “everyone” accepts. Thus, research into societal culture will be included in the efforts of scientists trying to expand our knowledge of the mechanisms that make men and women different from each other.

So far, we have focussed on the mechanisms used by institutions, and the characteristics of societal culture. In so doing, we have gone beyond the area of statistics that serve only to describe and analyse the attributes and activities of men and women in our society.

Key conclusion. Thus, broadening the focus of gender statistics so as to include the statistics and indicators that support analysis of the gendering phenomenon is crucial to the quality of support statisticians provide to those interested in gender equity. This conclusion in no way diminishes the importance of statistics and indicators of the attributes and activities of men and women in our society, or those that measure the various dimensions of gender equality. In other words, it does not minimize the importance of the contribution by Hedman, Perucci and Sundström (1996), who noted that statisticians’ efforts should shift from issues related to the status of women to issues that involve both men and women. Clearly, special attention must be given to this contribution, because we still find situations today in which the emphasis is placed almost exclusively on the status of women.

Gaps in the literature concerning the statistics that would support analyses of gendering mechanisms within a society

The scientific literature. Scientific literature that discusses different aspects of gendering exists. However, we find that the literature in question consists mostly of research and theory that relate to one aspect in particular, or to a network of gendering processes, that affect only very limited segments of peoples' lives.

There are certainly discussions of the *links* between gendering mechanisms that cover one or more stages of life. However, they rarely present empirical analysis or detailed theory concerning these links. Most offer only brief speculation or isolated hypotheses.

As noted, there is a lack of theories addressing the network of links among a wide range of institutions and related key cultural values of a society.

Published in 1985, “The Gender Factory” by Sarah Berk analyses the allocation of household tasks between the members of a couple (married, in most cases). This is a rich field for the development of theories and for empirical research into gendering mechanisms, as Berk (1985) notes.

In her book, she cites three main schools of theoretical ideas as the most important. The first focusses on distribution of power between family members, particularly spouses. However, she finds it insufficient for issues related to societal gendering mechanisms (Berk, 1985, pp. 10-15).

The second addresses what she calls “the socialist-feminist analysis of the status of women” (Berk, 1985, pp. 15). This seeks to rectify the shortcomings of traditional Marxist analysis with respect to the social relations that affect the status of women. In this realm of theory, however, “it was women’s relation to capitalism, not women’s subordinate relation to men, that was deemed relevant.” (Berk, 1985, pp. 16)

The third school of thought, which Berk adopts, with some modifications, for her own study, is the familiar “New Home Economics” prominent in the work of Becker. Berk discusses the new home economics at length (Berk, 1985, pp. 20-33). She concludes with a severely negative criticism in the context of applying the principles of this school in order to analyse and understand gendering mechanisms: “Ultimately,

Becker must account for why patterns of market and household specialization ... take their gender-specific forms.” (Berk, 1985, p. 33) In a word, the new home economics approach contributes little to the advancement of scientific knowledge of gendering mechanisms.

It is disturbing to note that we are relying here on a scientific review dating from 1985! We have looked, in vain so far, for an article or a book that offers an extensive theory or an empirical analysis of gendering mechanisms that persist over multiple stages of life *and* involve the impacts of a number of social institutions.

In highlighting issues related to the division of labour within the household (the subject of the theoretical discussion above), we would like to mention a more recent contribution -- Blau and Ferber, 1992. The authors devote their third chapter to the subject, but in the end they make only an indirect reference to gendering mechanisms. (However, a part of their discussion notes the major contribution of Marxist theory to the study of gendering mechanisms in the market for paid employment.)

Thus, none of these three important schools of thought concentrates fully on the advancement of scientific knowledge of gendering mechanisms as they relate to the assignment of household tasks.

Let us now consider the literature written mainly for statisticians.

The literature written for statisticians. In the literature on gender equality addressed to statisticians, there is little discussion of the provision of statistics and indicators related to societal gendering mechanisms.

The study that comes closest to such a discussion is that of Hedman, Perucci and Sundström (1996). Not only do the authors address the notion that gender is a social construction, but they also refer to aspects of gendering mechanisms operating within society. For example, on page 49 we find a mention of the “hypotheses or underlying causes” related to the questions that stimulate gender-related concerns among decision-makers and policy analysts. The hypotheses in question doubtless have to do with gendering mechanisms.

Even more to the point are the diagrams related to two subjects of wide public interest (see pp. 38-39). One is occupational segregation in the job market, whereby in comparison to men, women tend to be concentrated in jobs that have lower status and pay less.

The diagram lists the underlying causes. The list refers to family, educational and economic institutions and covers several stages of life. The authors cite aspects of the performance of these institutions, thus referring directly to the advancement of scientific knowledge of gendering mechanisms (Hedman, Perucci and Sundström, 1996, p. 38).

However, in their discussion of the statistics needed for analysis of the question that concerned them (job segregation), we find a list focussed on the attributes and activities of men and women. They cite variables indicating aspects of the performance of institutions under the headings of “unpaid work” and “employer prejudice”. However, the emphasis on indicators of the performance of institutions is much less than that on the attributes and activities of men and women.

Although statistics on the attributes and activities of men and women to some extent reflect the performance of institutions, it is practically impossible to analyse the performance of institutions using only these statistics -- for example, those that break down the workforce by education and occupation.

Much more direct indicators are required of the characteristics of performance: for example, university policies on prerequisites for access to certain programs, or employers’ policies on the days and times at which training is made available. (There are complaints in the literature about obstacles to training that it is often limited to certain sectors of the organization, to the disadvantage of female staff -- Stone, Deschênes and Fiala, 2002).

The very purpose of statisticians' work as perceived in Hedman, Perucci and Sundström (1996) needs to be re-stated in order to better support the advancement of knowledge of societal gendering mechanisms. They state:

“The national statistical system produces gender statistics on the basis of problems and goals defined in national policies and plans.” (Hedman, Perucci and Sundström, 1996, p. 9)

Rarely are governments' plans and policies designed to encourage analysis of gendering mechanisms covering several institutions or stages of life.

This type of concern is found mainly among teachers and academic researchers. They inquire into questions of the advancement of basic knowledge of how our society functions. However, often their hypotheses assume great significance for government policies and activities. Errors in these hypotheses increase the risk that government policies and activities will fail, and this leads us to seek a major addition to their statement that “the national statistical system produces gender statistics on the basis of problems and goals defined in national policies and plans”. We propose to add that

the system also produces statistics that support the advancement of knowledge of the functioning of society outside the context of national policies and plans.

Such advancement has a great impact on the work of teaching institutions, on the quality of citizen participation in community affairs, and even on the probability of success for government policies and activities.

This amplification of the statement by Hedman, Perucci and Sundström (1996) would encourage statisticians to pay special attention to gendering mechanisms in our society.

Areas of concern in the study of gendering mechanisms

The foregoing discussion leads us to review areas of concern in the study of gendering mechanisms so as to develop an idea of the range of statistics needed. The range is doubtless a broad one, but an effort to identify the key indicators and statistics is necessary given the importance of the subject.

However, this effort is well beyond the scope of this paper. Another paper will be needed to conduct a critical review of the literature and suggest innovations with respect to statistics and indicators to support a thorough examination of gendering mechanisms in society. In the meantime, a few illustrations should suffice.

We have already mentioned illustrations found in Hedman, Perucci and Sundström (1996): for example, “employers' preferences for men and women as employees in different occupations” (p. 50), and other institutional variables that are causal factors in occupational segregation (p. 38). Note also that the impact of employers' policies on access to training may differ for men and women.

We repeat: the literature contains a number of articles and books that deal with empirical research and theory respecting gendering mechanisms, but *in a few specific areas of life only*. As examples we would cite occupational segregation, pay equity (see the important recent contribution by Drolet, 2002), and in particular the development of boys' and girls' roles during the upbringing of children.

As an illustration of the *consequences* of the way children are brought up in Canada, the following graph and tables show a significant difference between boys and girls in Canada with respect to one aspect of unpaid work. The graph and tables were derived from responses to the innovative questions about unpaid work in the 1996 Canadian census.

The time-use data of the General Social Survey (GSS) provide much more detail on unpaid work activities for the ages treated below than do the census data, though the sample size of the GSS poses a serious problem for those who need reliable estimates for relatively rare sub-populations. (For related discussion see Stone and Pelletier, 2001.) We chose to highlight the census data because some countries

will find this the only affordable route to getting any data about unpaid work, and one table below shows information for relatively rare sub-populations.

Table 1 shows a breakdown by sex of time spent on unpaid household work in the week preceding the census by male and female Canadians aged 15 to 19. The table shows a higher proportion of girls than boys among those who spent more than average time on household chores: 24% of the girls spent 5 to 14 hours a week on unpaid housework work, while the corresponding proportion of boys is about 18%. If we focus on the 5 hours-or-more category, the proportions for girls and boys are 32% and 22%, respectively.

With respect to young people who did no housework in the week before the census, the larger proportion is found among the boys. Note that almost 25% of the boys did no housework, compared with only about 16% of the girls.

Despite these differences, boys and girls share a common trend: most girls and boys aged 15 to 19 spent fewer than 5 hours on housework in the week preceding the census.

The data in the table relate to all girls and boys aged 15 to 19, whether a child of the reference person or any other young person living in the same household as the reference person. If we take only girls and boys of the same ages who are children of the reference person, the results are similar.

Table 1. Distribution of time spent doing unpaid housework in the week before the census by Canadians aged 15-19, by sex, 1996

<u>Sex</u>	<u>Hours spent doing unpaid housework</u>				<u>Total (1)</u>
	<u>None</u>	<u>Less than 5</u>	<u>5 to 14</u>	<u>15 or more</u>	
Female	16.3	51.3	24.0	8.4	26463
Male	24.7	52.9	17.8	4.5	28152

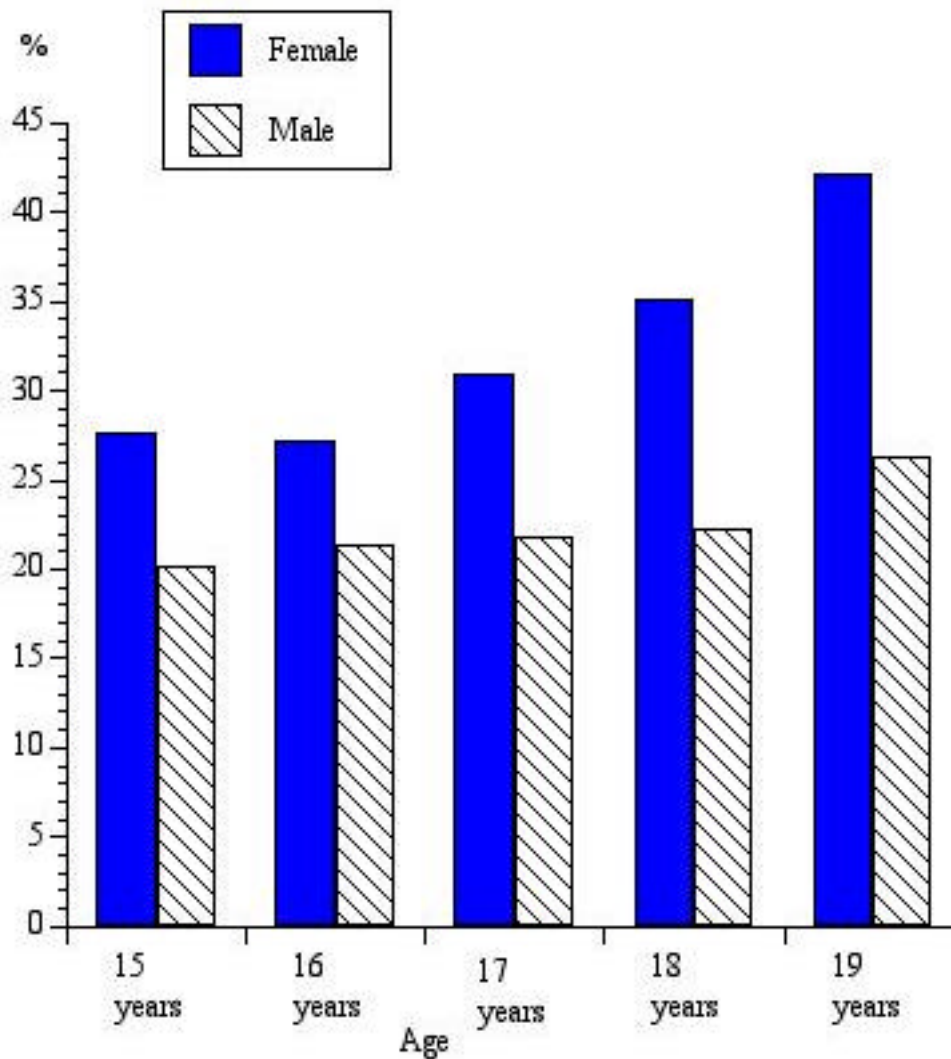
1. Sample size.

Source : 1996 Census public-use microdata file for individuals

Chart 1 shows the trends for young Canadians aged 15 to 19 who spent 5 hours or more on housework, by age. It appears that the gap between girls and boys grows with age. If we compare girls and boys aged 15 with those aged 19, figure 1 shows that in the week preceding the census, 28% of the girls and 20% of the boys aged 15 spent 5 hours or more on housework, while for 19-year-olds the proportions were about 42% and 26%, respectively.

So far we have described the patterns in time spent doing household work for boys and girls aged 15 to 19. Given the important effects of cultural values upon gendering processes, the following section examines these patterns, but with a breakdown according to mother tongue. Mother tongue is generally accepted to be a key dimension of cultural heritage.

Chart 1. Percentages of young men and women aged 15 to 19 who spent five hours or more doing unpaid housework during the Census Week, by age, Canada, 1996



Source: 1996 Census public-use microdata file for individuals

file= Chart1_housework_sex_age_E.aw6

Table 2 shows the pertinent data for young Canadians aged 15 to 19, by mother tongue. For selected categories of mother tongue, the table shows the gap between boys and girls on the selected index. (Mother tongue is chosen here as a rough indicator for certain *broad groupings* of cultural-background categories. Ideally these categories would be defined on the basis of several dimensions, one of them being mother tongue; which will be done in a future draft of this paper.)

Table 2. Distribution of time spent doing unpaid housework in the week before the census by Canadians aged 15-19, by sex and mother tongue (1), 1996

	None %	Hours spent doing unpaid housework			Total (2)
		Less than 5 %	5 to 14 %	15 or more %	
English					
Sex					
Female	14.8	52.1	25.2	8	16503
Male	22.5	54.3	18.7	4.5	17683
Gap	-7.7	-2.2	6.5	3.5	
French					
Female	19	54.7	20.4	6	6337
Male	28.8	53.9	14.1	3.2	6645
Gap	-9.8	0.8	6.3	2.8	
Dominant (Aggregate of English and French)					
Female	15.9	52.8	23.9	7.4	22840
Male	24.2	54.2	17.5	4.2	24328
Gap	-8.2	-1.4	6.4	3.3	
Selected European mother tongues					
Female	17.2	41.8	27	14	1075
Male	29.5	46	18.6	5.9	1127
Gap	-12.3	-4.2	8.4	8.1	
Chinese					
Female	20.7	48.3	22.4	8.6	671
Male	24.5	51.1	19	5.4	816
Gap	-3.8	-2.8	3.4	3.2	
Other Asiatic mother tongues					
Female	16.3	39.4	28.2	16.1	657
Male	26.7	44.7	21.8	6.7	655
Gap	-10.4	-5.3	6.4	9.4	

1. Note on the mother tongue categories --

English includes only those that reported English as a single mother tongue.

French includes only those that reported French as a single mother tongue as well as those that reported French and English as dual mother tongues.

"Dominant" is an aggregation of the English and French categories.

"European" includes German, languages of the Netherlands, Italian, Spanish, Portuguese, Polish, Ukrainian, Greek.

Chinese includes only those that reported Chinese as a single mother tongue.

"Other Asiatic" includes Arabic, Punjabi, and other Indo-Iranian languages.

2. Sample size.

Source : 1996 Census public-use microdata file for individuals

In looking at this table, keep in mind the pattern for the two dominant mother tongue groups -- English and French mother tongues combined. Consider this pattern as a sort of benchmark against which the others can be compared.

In two of the selected mother-tongue categories, the tendency for girls to do more housework than boys is accentuated, compared to the pattern of the dominant language groups. These are the "European" and "Other Asiatic" groups (defined in detail in the table). The gap between girls and boys is much sharper for these groups than for the dominant language groups. For the category of 15 or more hours, the gap is around eight percentage points for the "European" mother-tongue group, and around nine percentage points for the "Other Asiatic" group. In contrast, that for the dominant language groups is only 3 percentage points.

The "European" and "Other Asiatic" mother-tongue groups also show an accentuated gap between boys and girls in the category of 5 hours or less time spent doing housework. The gap is 17 percentage points for "European" and close to 16 percentage points for "Other Asiatic". These gaps are much higher than that of around 10 percentage points in the group of the dominant languages.

A quite different situation is observable for the group with Chinese mother tongue. In this group there is a less pronounced difference between boys' and girls' time spent doing housework, compared to the group of the dominant languages. In the category of 5 to 14 hours, for example, the gap between boys and girls is about three percentage points among the Chinese mother-tongue group, while that for the dominant language group is six percentage points.

A similar pattern is seen in the category of having done no unpaid housework in the week preceding the census. The gap between the Chinese mother-tongue boys and girls is about four percentage points, whereas that among the dominant language group is around eight percentage points.

The patterns presented above are consistent with the hypothesis that cultural values are among the factors that influence gendering processes in society, and these are processes that begin to operate during the life-course phase where boys and girls are being enculturated. If these data concerning unpaid housework provide good indications of the gender differences among young people, they seem to suggest that the differences intensify as age increases during the process of maturing to adulthood.

The foregoing summary comment will come as no surprise to most parents. We have highlighted the boy-girl differences to suggest that they are *results* of gendering processes going on in the institution of the family. Our central point in this paper is that statisticians engaged in developing gender statistics need to bring into focus *cultural values and the behaviour of institutions*, so that gendering can be analyzed adequately.

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