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Sex Differences in the Participation, Occupations and Research Interests of Current Members of the Canadian Population Society, 1990

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Introduction

An important mandate of the "Women's Issue Network" set up by the Social Science Federation of Canada (SSFC) in 1988-1989, has been to encourage among its member associations increased interest in, and awareness of, a variety of issues involving the status of women. An interesting question which follows from this concern is the participation of women in particular member societies of SSFC, namely, the Canadian Population Society (CPS).

Using data from the 1990 CPS Membership Directory, this report provides a profile of women's representation in the discipline of demography. A number of basic characteristics are considered in developing this profile, including women's participation in the field of demography; their distribution between full-time studies and the paid work force; their employment in academic versus non-academic sectors; and the types of research undertaken, all compared to the representation of their male counterparts in the CPS.

This information will assist in gauging the overall differences between women's and men's professional activities as well as any sex variations in a number of dimensions of involvement. Specifically, it will be possible to determine how well women are represented in the discipline; to what extent they are occupationally segregated; whether the types of demographic research undertaken vary according to sex such that women engage mostly in research which is typically considered to interest women primarily (e.g., fertility, nuptiality, families, status of women, etc.) while men pursue more "mainstream" interests (e.g., migration, mortality, demographic-economic relationships, demographic techniques, etc.); and finally, to what degree women are represented as a proportion of the total number of student members and how their research interests compare to those of their male counterparts, information which should provide some

indication of the expected future involvement of women in the field of demography. Wherever feasible, comparisons along these lines can be made with previously summarized data from 1986-1987 on membership in the Association of Quebec Demographers (ADQ), the Quebec counterpart to CPS (see Boyer and Gauthier, 1987).

In concluding this report, a few comments are offered on the need to place discussions and issues in gender inequality into broader social context. There is a danger that separation of areas of interest into "women's" versus "men's" issues will lead to further social segregation and restrictions on meaningful dialogue. Instead, it may be more productive to emphasize the social implications of inequality for all of society, not just for a particular minority group such as women.

Data Characteristics from the CPS Directory

The 182 institutional and private members listed in the CPS Membership Directory include all those who had paid up fees through the end of October, 1990; about 18 members were not paid up by the time the current listing was completed and were, therefore, excluded from the directory. The directory listing is more up-to-date than the one obtained for the CPS by SSFC questionnaire which was based on paid up membership through Summer, 1990.

In the CPS Directory, information on such questions as place of employment, major work activity, and demographic and other interests are provided by members. Multiple responses are possible for the questions on major activity and research interests although this information is not supplied in a rank-ordered format. It cannot be assumed, therefore, that responses to these questions have necessarily been rank-ordered by respondents according to time expenditure or substantive importance. To classify individuals according to their proportion of the entire set of members on questions of major activity or most important research interests, each response is weighted by the total number of responses given per individual (i.e., $1/n$, where n = number of responses).

While the current directory provides the most complete membership listing available, there are several difficulties with using these data. In a few instances, a member's sex cannot be determined with certainty from the listing. With the use of supplementary information, all but two

members listed in the current CPS Directory could be classified by sex. Information on employment activities and research interests (demographic or non-demographic) of some members is also lacking. Excepting cases where it is possible to infer major employment activity from the place of employment given, members not listing a major activity must be assigned to a residual category as is the case with questions of primary demographic research interests.

An additional difficulty in using the directory as a data source is that there is no separate classification of student members. With the existing occupational categories, full-time students belong under the "other" residual category of major activity. However, a certain number of students list teaching and/or research as their major activities when in fact they are full-time students. Using membership fee status information, it was possible to correctly identify and include all but two students by their major activity.

Findings and Discussion

Sex Structure

Of the 180 members whose sex could be determined with certainty, 63 are female and 117 are male. Women thus represent 35% of the total membership while men comprise the remaining 65%. The CPS sex ratio of 186 males per 100 females compared to the ADQ ratio of 136 males shows that the ADQ is considerably more balanced in its representation of women.

A breakdown by sex of the student and non-student groups indicates that there are 182 males per 100 females among non-students and 214 males per 100 females among students. The percentage distribution for students is 68% males and 32% females. Among ADQ members, 19% of males and 38% of females report studies as a major activity. The ADQ data are not strictly comparable on this score, however, since the major activity categories are not weighted by the number of responses per individual and the total student membership is not specified. All that can be concluded, therefore, is that more women who are members of the ADQ list studies as a major activity as compared to men.

The 22 student members listed in the CPS Directory comprise about 12% of the total membership. Slightly more than 8% of all members are male students whereas female students account for about 4% of the total. As a proportion of the total female membership, about 11% are students whereas among male members, almost 13% are students. Female students are thus underrepresented both within the student population and as a proportion of all female members, compared to their male counterparts. Whether this imbalance derives mostly from women's underrepresentation in graduate programs or their lower participation rates in professional associations such as CPS cannot be determined from the data. In either case, the observed differences reflect significant gender variation in professional involvement.

Major Activities

Categories of major activities used in the Directory are "research", "teaching", "government administration, federal and provincial", "municipal administration", "university administration", "private consulting", "private business", and "other activities". Those students designating major activities other than studies (e.g., research, teaching, other) are reclassified into a separate category so that students can be included in the analysis. With the weighting of members' responses, each professional activity listed is expressed as a proportion of the total activity involvements indicated by members.

The distribution of major activities was first examined according to the sex of the member and then recombined to give an indication of the relative importance of the various activities among CPS members as a whole. Table 1 shows these numbers and percentages by sex, as well as for the total membership.

Among members as a whole, the predominant professional activity is research (37.3%), with the largest proportion taking place in the academic setting, followed by teaching (21.1%); studies (12.4%); federal government administration (10.2%); provincial government administration (5.1%); other activities (5.0%); private consulting (4.2%); municipal administration (1.7%); private business (1.6%); and, university administration (1.2%). These relative frequencies for the entire set of members combined, however, conceal some important patterns of variations in the professional activities of males and females.

The largest proportion of both females and males list research as their major professional activity. In the research category, differences are slight (about 36% for women versus 38% for men). Teaching is the second most important activity for both men and women, but in this category, men are overrepresented by 60%. Twenty-four percent of males report teaching activities compared to only about 15% of females.

TABLE 1. MAJOR ACTIVITIES OF CPS MEMBERS, STUDENTS AND NON-STUDENTS, BY SEX, 1990.

Major Activity	Males		Females		Total	
	#	%	#	%	#	%
Research	44.0	37.9	22.0	36.1	66.0	37.3
Teaching	28.3	24.4	9.0	14.8	37.3	21.1
Government Adm. Federal	10.0	8.6	8.0	13.1	18.0	10.2
Government Adm. Provincial	3.5	3.0	5.5	9.0	9.0	5.1
Municipal Adm	2.5	2.2	0.5	0.8	3.0	1.7
University Adm	1.7	1.4	0.5	0.8	2.2	1.2
Private Consulting	5.0	4.3	2.5	4.1	7.5	4.2
Private Business	1.8	1.6	1.0	1.6	2.8	1.6
Studies	15.0	12.9	7.0	11.5	22.0	12.4
Other	3.8	3.3	5.0	8.2	8.8	5.0
Total	116	100	61	100	177	100
Missing	1		2		3	

1. Figures weighted according to number of responses per individual (i.e., 1/n) excepting students.
2. Column percentages and numbers may not sum exactly to totals due to rounding (all figures rounded to one decimal place).

Considering only teaching activities as the basis for classification into academic professions, it is clear that women are relatively underrepresented. Only 24% of the total number of members in teaching are women. The relative paucity of women in teaching is significant in its consequences for gender role modelling among students of both sexes.

For remaining activities, men are slightly more numerous compared to women among students (12.9% and 11.5% for males and females

respectively); in federal and provincial government administration, 8.6% and 3.0% respectively are males, whereas women comprise 13.1% and 9.0% in the federal and provincial sectors of the total female membership; employment in municipal administration is relatively low for both male and female members with 2.2% of men and only 0.8% of women in this sector; private consulting activities account for 4.3% of males versus 4.1% of females; private business employs about 1.6% of both males and females; 0.8% of women and 1.4% of men are engaged in university administration; and other activities account for 3.3% of males and 8.2% of females.

For males, the most frequently listed major activities, from highest to lowest, are: research, teaching, studies, federal government administration, private consulting, other activities, provincial government and municipal administration, private business, and finally, university administration. The major activities by frequency of reporting among female members are: research; teaching; federal government administration; studies; provincial government administration; other activities; private consulting; private business; and municipal government and university administration.

A certain amount of occupational segregation is apparent from the overall differences. While men in the CPS are only slightly more concentrated in research, they clearly predominate in teaching activities. Males are also slightly overrepresented among students and in municipal and university administration. By contrast, women are more numerous in the federal and provincial government sectors, as well as in other types of activities. In public sector employment, however, women are relatively concentrated in lower-level administrative or clerical positions compared to men. For the remaining activities (i.e., private consulting and private business), there is considerable balance in the distribution of males and females.

One further comparison between men and women involves differences in the reported number of activities. Whereas only 20.7% of males indicate one major activity, 37.7% of women report a single activity. A possible explanation for this difference is the greater restrictions on women's non-family activities posed by the disproportionate demands placed on them in unpaid work activities like child and home care.

Although the CPS and ADQ membership data are not strictly comparable in certain respects, at least a rough comparison can be made in the various

professional activities. To match the ADQ classification, major activities listed by CPS are recategorized according to "research", "teaching", "administration", "consultation", "studies", and "other".

Table 2 reveals that ADQ members are less evenly distributed between men and women in research compared to the CPS. In the ADQ, 52.9% of males versus 44.8% of females list research activities whereas 37.9% and 36.1% of males and females respectively in CPS are found in research. In the teaching category, the relative participation of men and women is almost identical in the ADQ and CPS (6.4% for males and 3.8% for females in the ADQ compared to 24.4% and 14.8% for males and females respectively in CPS).

TABLE 2. MAJOR ACTIVITIES OF CPS AND ADQ MEMBERS, STUDENTS AND NON-STUDENTS, BY SEX, 1990.

CPS Members		
Major Activity	Males %	Females %
Research	37.9	36.1
Teaching	24.4	14.8
Administration	15.2	23.8
Consulting	4.3	4.1
Studies	12.9	11.5
Other	4.9	9.8
Total	100	100

ADQ Members		
Major Activity	Males %	Females %
Research	52.9	44.8
Teaching	6.4	3.8
Administration	15.8	10.5
Consulting	4.1	6.6
Studies	13.0	30.4
Other	7.8	4.0
Total	100	100

(Source of ADQ data: Boyer and Gauthier, 1991)

Administration activities combine employment in federal, provincial and municipal government administration, along with university

administration. In this category, the representation of males in both associations is nearly identical at 15.8% and 15.2% for ADQ and CPS members respectively. Among female members, however, the relative sex imbalance in the CPS is more obvious. About 11% of women in ADQ report employment in administration, a figure which is lower (by 40%) but not dramatically different from that of their male counterparts. In the CPS, however, there are almost 1.6 times as many women as men employed in administrative positions. Here, women's overrepresentation is accounted for by their relative concentration in federal and provincial government administration.

The ADQ and CPS membership is fairly evenly distributed in consultation activities (4.1% and 6.6% for males and females respectively in ADQ versus 4.3% for males and 4.1% for females in CPS). Differences between CPS and ADQ among students are much more notable: While students in CPS are split fairly evenly between males and females, female students in ADQ are 2.3 times more numerous than their male counterparts.

Demographic Interests

A central question in this research is the extent of gender preferences in the major research interests of CPS members. In Table 3, data on demographic research specialities are summarized. Given that twenty-three possible demographic fields are listed in the Directory, many have been combined to reduce the number of responses; this helps to minimize the difficulties associated with small cell sizes, particularly with the small number of students in the association. As before, responses are weighted by the total number of responses to get a sense of the relative importance of the various research specialties among members.

The most important comparison in this part of the analysis is the sex distribution of members among the various demographic fields. Some interesting patterns of variation are evident. Males in CPS are more heavily concentrated in migration-related research (including spatial distribution, urbanization and regional studies) compared to their female counterparts (19.7% versus 10.7% respectively). In the secondary characteristics category, which includes the study of ethnic-linguistic groups, labor force activity, schooling and women's status, the disparity

TABLE 3. DEMOGRAPHIC INTERESTS OF CPS MEMBERS, STUDENTS AND NON-STUDENTS, BY SEX, 1990.

Demographic Interests	Non-students Males %	Non-students Females %	Students Males %	Students Females %	Total Males %	Total Females %
General Demography etc.	8.0	11.8	19.0	9.4	9.4	11.5
Historical Demography	2.2	3.8	0	0	1.9	3.4
Methods/ Techniques	11.6	7.7	0	0	10.1	6.8
Fertility	8.4	7.7	17.8	28.6	9.6	10.2
Mortality etc.	8.0	7.3	4.7	0	7.6	6.5
Migration etc.	18.5	11.2	28.4	7.1	19.7	10.7
Nuptiality etc.	7.0	9.6	15.4	7.1	8.1	9.3
Population Growth/ Size etc.	9.1	8.9	0	16.6	7.9	9.9
Population Policy	7.2	3.5	4.7	4.7	6.9	3.7
Secondary Characteristics	10.9	19.8	9.4	19.0	10.7	19.7
Demographic-Economic Interactions etc.	6.0	2.6	0	0	5.3	2.3
Demographic-Non-Economic Interactions etc.	3.4	5.8	0	7.1	2.9	5.9
Total	100	100	100	100	100	100
Sample Size	99	52	14	7	113	59
Missing	3	4	1	0	4	4

1. Figures weighted according to number of responses per individual (i.e., 1/n).
2. Column percentages may not sum exactly to totals due to rounding (all figures rounded to one decimal place).

between men's and women's interest is almost identical to that noted above except that the pattern of difference is reversed in this instance, with

19.7% of women engaged in these fields of study compared to only 10.7% of men. Concerning status of women studies in particular (not shown), it is revealing that female members of CPS are about 4.5 times more likely to engage in this research compared to males (5.4% versus 1.2% respectively).

While men's relative neglect of this area is customary, it is also surprising given the proven utility for demographic research of measures of women's status in predicting fertility change as well as maternal and infant mortality and economic/cultural modernization in many settings (see, for example, Kasarda *et al.*, 1986).

As anticipated, demographic techniques, including methods, models, projections, data collection and estimation, occupies considerably more male members of CPS than female members: 10.1% of males but only 6.8% of females work in this area of specialty. It is in these types of empirical research areas that men have traditionally been dominant.

In fertility analysis, men and women rank fairly closely, with 9.6% of males and 10.2% of females. This similarity does not support the expectation regarding women's relative preference for research on reproductive patterns. However, within the discipline, fertility has long been established as a mainstream area of study.

Considering nuptiality and family research, there are 9.3% of women and 8.1% of men. Although the difference is small, it nonetheless points to women's relative preference for research related to what have traditionally been thought of as female domains of interest.

The category including specialization in mortality, morbidity, epidemiology and health finds men at a slight numerical advantage, with 7.6% engaged in this type of research compared to 6.5% of women. By contrast, research on population policy is considerably more important to men than to women (6.9% versus 3.7% for males and females respectively). The reverse pattern of difference is observed in the case of demographic-noneconomic interactions and other research areas, which occupies 5.9% of female members but only 2.9% of males. Much of the difference with this category, however, is due to women's greater interest in other areas alone (not shown), with 5.1% of females and only 1.2% of males. Possibly, these unspecified interests include research on important demographic

variables like contraceptive technology and family planning, areas which also appear to be mainly favoured by women.

As anticipated, men in CPS are relatively overrepresented in research on demographic-economic interactions (including natural resources). In this area, there are more than twice as many men as women (5.3% as opposed to 2.3% respectively), a numerical advantage which may result from men's traditional domination in the field of economics.

Finally, compared to women, a relatively small proportion of men in CPS list historical demography as a specialization (1.9% versus 3.4% of males and females respectively).

Among men in CPS, then, the major demographic interests, from greatest to least are: migration and related studies; secondary characteristics; demographic techniques and methods; fertility; general demography, theories and social demography; nuptiality and families; population trends, age structure and aging; mortality and morbidity-related research; population policy; demographic-economic interactions; demographic-noneconomic interactions and other research areas; and finally, historical demography.

For women, the results are as follows: Secondary characteristics; general demography, theories and social demography; migration research; fertility analysis; population trends, age structure and aging; nuptiality and families; techniques and methods; mortality and morbidity research; demographic-noneconomic interactions and other fields of study; population policy; historical demography; and finally, demographic-economic interactions.

The CPS membership can also be compared by sex for both students and non-students. Referring first to non-students, migration and related areas is clearly the most important among males (18.5%). For females, alternatively, the predominant research interest is the various secondary characteristic areas listed above (19.8%). With respect to students, the largest proportion of males choose migration as their primary research focus (28.4%). In the case of female students, fertility research predominates (28.6%).

Considered together, both female students and non-students place a high priority on research dealing with the various secondary characteristics

(19.0 and 19.8% respectively). Males evidently consider these research specialties to be of lesser importance (9.4% for male students and 10.9% for male non-students). In the case of students, however, this difference by sex is due to women's relative preference for studies pertaining to schooling rather than women's status.

Males, both student and non-student, more commonly engage in migration studies (28.4% and 18.5% respectively). While male and female non-students compare fairly closely in their interest in fertility research (8.4% versus 7.7%), a more striking pattern of variation is found among student members. Both male and female students are overrepresented in fertility research compared to non-students, but 28.6% of female students versus 17.8% of their male counterparts conduct research in this area.

One final comparison along these lines is notable. Among all non-students, nuptiality and family research is of relatively minor importance with only 7.0% of males and 9.6% of females working in these areas. The pattern of results is much less consistent among students, however, given 15.4% of males but only 7.1% of females are involved in nuptiality and family research.

Overall, we can say that some fairly systematic differences are evident in the types of demographic research men and women choose to undertake. Men tend to favour research in migration and related areas whereas women's dominant interests lie in a variety of fields which are usually considered to be of secondary (or indirect) importance in their impact on demographic parameters. At the same time, however, considerable variation exists in student and non-student preferences, a finding which may reflect real changes in the demographic interests of men and women across successive cohorts of CPS members. Considerably more male students than non-students, for example, choose areas of enquiry like fertility and nuptiality, fields which have customarily been associated with women's interests. Of course, it may also be the case that individual interests evolve over the course of a career, independently of any real cohort changes.

Finally, Table 4 shows the various demographic research interests of men and women in both CPS and ADQ. Although comparisons are not discussed here, the data reveal some interesting similarities and differences by sex as well as by association membership.

TABLE 4. DEMOGRAPHIC INTERESTS OF ADQ (1986-1987) AND CPS (1990-1991) MEMBERS, STUDENTS AND NON-STUDENTS, BY SEX

Demographic Interests	ADQ Males %	ADQ Females %	CPS Males %	CPS Females %
General Demography etc.	9.8	14.8	9.4	11.5
Historical Demography	5.1	3.4	1.9	3.4
Methods/ Techniques	18.3	10.8	10.1	6.8
Fertility	2.4	4.7	9.6	10.2
Mortality etc.	15.2	19.4	7.6	6.5
Migration etc.	7.1	8.2	19.7	10.7
Nuptiality etc.	4.6	6.7	8.1	9.3
Population Growth/ Size etc.	6.5	3.4	7.9	9.9
Population Policy	2.2	2.6	6.9	3.7
Secondary Characteristics	18.0	17.5	10.7	19.7
Demographic-Economic Interactions etc.	4.9	3.4	5.3	2.3
Demographic-Non-Economic Interactions etc.	5.9	5.1	2.9	5.9
Total	100	100	100	100

Source of ADQ data: Boyer and Gauthier, 1991.

Summary of Major Findings

To summarize the most notable sex differences in the CPS: among the entire group of members, there are twice as many men as women; in the non-student membership, the ratios are similar although slightly more even; among students, fewer than half of current members are females.

Female students are underrepresented within the student population and as a proportion of all female members, when compared to the student-non-student ratios for males. Overall, men continue to dominate the discipline. Concerning professional activities, research and teaching are the most important for females and males alike. With similar frequency, the largest proportion of both males and females identify research as a major activity. Males are overrepresented by 60% among teachers, although this activity is the second most frequently reported by both men and women. Women's underrepresentation in academic professions is especially significant considering the need for appropriate gender-role modelling among younger cohorts of men and women.

From the results on demographic research interests, it appears that expectations were confirmed regarding women's and men's preferences for certain fields of study. Overall, women appear to concentrate their research efforts in areas which have traditionally been defined as "women's interests". Such areas include the topics which are typically thought to have secondary associations with demographic processes; men's interests appear to lie with the more central demographic processes like migration. Nevertheless, among students in particular, less variation is apparent between men and women on some of the research preferences. This pattern may signal an increasing overlap in research interests among younger cohorts of demographers.

"Women's" Issues or Social Issues?

It is apparent that, at least among member demographers, some variations persist in men's and women's participation in various employment sectors and in the types of research undertaken. Some of these differences reflect women's continued underrepresentation in a traditionally male-dominated field. Although women's membership participation in CPS is considerably lower than men's, an encouraging finding on "Women in CPS" is a trend towards women's increased involvement in the CPS in executive capacities and an increase in the number of scholarly articles in *Canadian Studies in Population* authored by women or dealing with issues of concern to women (see Boyd and McDaniel, 1991).

The most effective way of redressing women's continuing numerical underrepresentation and social disadvantage in many areas of life is open to some debate. It can be argued, though, that women's claim to social

legitimacy of issues impinging on their lives might best be served by avoiding the segmentation of social concerns according to women's and men's interests.

While it is useful to document existing gender disparities in participation in the profession, it is equally necessary to avoid portraying matters like women's underrepresentation as primarily "women's" issues. Now that a variety of specific concerns have been clearly identified and well-publicized, the most productive way of confronting issues pertaining to women might be to set them within the larger framework of *human* interests as opposed to "women's" interests; there is thus a need to locate issues and interests in gender inequality within their broader social contexts. Unfortunately, it seems that one of the most effective ways of trivializing an issue or marginalizing its importance in the public mind is to define it as a "woman's" issue. Similarly, women's collective interests are often cast as "special" interests despite their constituting a numerical majority in most societies. In either case, the call for social action is thwarted.

Clearly, there is a need to work for specific changes in areas like fair access to employment, pay equity, visibility in leadership, and equitable sharing of responsibilities in family planning and parenting. In pursuing these important goals, however, we should be careful not to segment or categorize issues into "women's" issues or "men's" issues, domains which can then be readily interpreted as being of interest only to an exclusive minority.

The underlying structural causes of gender inequality are really a question of social inequality. Accordingly, fuller attention should be paid to the wider social implications of issues of social inequality based on sex, in order to demonstrate their relevance to society as a whole. This more inclusive approach may help us to close the existing gender gap in perceptions of these issues. Where issues are narrowly defined as not crucial to our own needs or interests, it may be tempting for us to deny our portion of responsibility for either the existence of a problem or its resolution. It is with this kind of rationale that "women's issues" become women's problems to be resolved only by women.

As is well known, positive and meaningful social change is rarely spontaneous but requires organized effort and even sacrifice of certain socially allotted privileges. In working towards the goal of gender equality,

the identification of areas of concern must be balanced by the need to challenge and convict all members of society, not just those bearing the major disadvantage of a particular policy or practice.

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