



Spousal/Partner Employment and Income (SPEI) Project: How Do Canadian Forces Spouses Compare?

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Defence R&D Canada
Director General Military Personnel Research & Analysis

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Abstract

The aim of this report is to address one of two key research questions for the Spousal/Partner Employment and Income project, namely, “What is the employment status and income of Canadian Forces spouses vis-à-vis comparable groups?” Utilizing data from the 2006 long-form Census, when comparing female spouses of Canadian Forces, Police, Federal Public Servants and Other Civilians, there were similarities found on a number of socio-demographic characteristics (e.g., the presence of young children at home). Parallel findings were also found when comparing the differences between female spouses of Non-Commissioned Members and Officers of Canadian Forces personnel. Logistic regression modeling of employment status showed that a number of variables play a role in the employment status of female spouses (e.g., region), while linear regression modeling showed that female spouses of Canadian Forces personnel have lower employment incomes than other female spouses. Overall, this report demonstrates that female spouses of Canadian Forces personnel were found to have different socio-demographic characteristics as well as different employment statuses/incomes than female spouses of the comparable groups.

Résumé

Le présent rapport a pour but de répondre à l’une des deux importantes questions de recherche du Projet d’emploi et de revenu du conjoint (PERC), à savoir « Quelle est la situation professionnelle des conjointes des membres des Forces canadiennes par rapport aux groupes comparables? ». En utilisant les données du recensement détaillé 2006 et en comparant les données relatives aux conjoints de militaires, de policiers, de fonctionnaires et d’autres civils, on a trouvé des similarités pour un grand nombre de caractéristiques sociodémographiques (p. ex. jeunes enfants à la maison). Des conclusions parallèles ont également pu être tirées en comparant les conjointes de militaires du rang et d’officiers des Forces canadiennes. La modélisation de régression logistique de la situation professionnelle démontre qu’un grand nombre de variables ont une incidence sur la situation professionnelle des conjointes (p. ex. la région), alors que la modélisation de régression linéaire démontre que les conjointes de militaires ont un revenu d’emploi moindre que les autres conjointes. En général, le présent rapport démontre que les caractéristiques sociodémographiques des conjointes de militaires ainsi que leur situation professionnelle et leur revenu d’emploi sont différents par rapport aux groupes comparables.

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Executive summary

Spousal/Partner Employment and Income (SPEI) Project: How Do Canadian Forces Spouses Compare?:

Jason Dunn; Samantha Urban; Zhigang Wang; DGMPRA TM 2010-028; Defence R&D Canada – DGMPRA; November 2010.

Background: The overall aim of the Spousal/Partner Employment and Income (SPEI) project is to gather data on the employment status and income of Canadian Forces (CF) spouses. The SPEI has three phases and this report represents completion of phase two. Utilizing data obtained from the 2006 long-form Census, the goal of this report is to address one of two research questions, namely, “What is the employment status and income of CF spouses vis-à-vis comparable groups?” In particular, this report examines how CF spouses compare to spouses of Police, Federal Public Servants (FPS) and Other Civilians (OC). It also compares the differences between spouses of CF Non-Commissioned Members (NCMs) and CF Officers.

Results: *Comparing Female Spouses Across the Four Groups:*

When comparing the female spouses of CF, Police, FPS and OC, female spouses of CF personnel have: less university level education¹, little difference in the presence of young children at home; lower income, similar knowledge of their province’s First Official Language (FOL); and similar types of employment by industry. In addition, female spouses of CF personnel are: youngest, less likely to be visible minorities; less likely to be employed; more likely to live in Atlantic Canada; more like to report English as their FOL²; and more likely to move provincially.

Comparing Female Spouses of CF NCMs and CF Officers

When comparing the female spouses of CF NCMs and CF Officers, female spouses of CF NCMs have: less university level education; similar school attendance; little difference in the presence of young children at home; similar knowledge of their province’s FOL; similar types of employment; and lower income. As well, female spouses of CF NCMs are: younger; more likely to self-report as Aboriginal; more likely to report French as their FOL; more likely to live in Quebec; less likely to move provincially; and more likely to be employed.

¹ This was found when comparing female spouses of CF to female spouses of Police and FPS, but not when comparing female spouses of CF to female spouses of OC.

² Ibid.

Logistic Regression Modeling of Employment Status and Linear Regression Modeling of Employment Income

When analyzing the results of logistic regression modeling of employment status, findings indicate that the female spouses who:

- a. experienced a provincial or international move;
- b. have less education; and
- c. have the presence of a child aged five or younger at home are more likely to be “not in the labour force”, “unemployed” or “working less than 30 hours”.

Looking at the results of the linear regression modeling of employment income, findings indicate that:

- a. the female spouses of CF personnel are more likely to have a lower employment income than the female spouses of Police or FPS; and
- b. the female spouses of CF NCMs are more likely to have a lower employment income than the female spouses of CF Officers.

Future Plans: In the third and final phase of the SPEI project, analysis of data collected from CF Regular Force personnel and from spouses of CF Regular Force personnel about employment status, experiences and income will take place. With these two data sources, the second key research question of the SPEI - What are the employment experiences of CF spouses? – will be examined. It is expected that the results from this work will be available in March 2011.

Sommaire

Spousal/Partner Employment and Income (SPEI) Project: How Do Canadian Forces Spouses Compare?:

Jason Dunn; Samantha Urban; Zhigang Wang; DGMPRA TM 2010-028; R & D pour la défense Canada – DRASPM; Novembre 2010.

Contexte : le principal objectif du PERC est de recueillir des données sur la situation professionnelle et le revenu d'emploi des conjoints de militaires. Le PERC est divisé en trois phases et le présent rapport porte sur l'achèvement de la deuxième phase. Le rapport a donc pour but de répondre à l'une des deux importantes questions de recherche du PERC, à savoir « Quelle est la situation professionnelle des conjoints des membres des Forces canadiennes par rapport aux groupes comparables? », en se basant sur les données recueillies au cours du recensement détaillé 2006. Le rapport établit plus particulièrement une comparaison entre les conjoints de militaires et ceux de policiers, de fonctionnaires et d'autres civils. Il établit également la différence entre les conjoints de militaires du rang et d'officiers.

Résultats : *comparaison des conjointes dans l'ensemble des quatre groupes*

Les caractéristiques des conjointes de militaires, comparativement aux conjointes de policiers, de fonctionnaires et d'autres civils, sont les suivantes : la proportion de celles qui ont fait des études universitaires est moindre¹, il y a une légère différence quant à la présence de jeunes enfants à la maison, leur revenu est moindre, leur niveau de connaissance de la langue officielle de la province dans laquelle elles vivent est semblable et elles occupent des emplois du même type, par industrie. De plus, les conjointes de militaires sont les plus jeunes, ne font généralement pas partie des minorités visibles, ont moins de chance d'être embauchées, ont plus de chance de vivre dans le Canada atlantique, sont généralement anglophones² et ont plus de chance de déménager dans une autre province.

Comparaison entre les conjointes de militaires du rang et les conjointes d'officiers

Les caractéristiques des conjointes de militaires du rang, comparativement aux conjointes d'officiers, sont les suivantes : la proportion de celles qui ont fait des études universitaires est moindre, elles ont fréquenté l'école de façon régulière, il y a une légère différence quant à la présence de jeunes enfants à la maison, leur niveau de connaissance de la langue officielle de la province dans laquelle elles vivent est semblable, les types d'emploi sont semblables et leur revenu est moindre. De plus, les conjointes de militaires du rang sont plus jeunes, sont plus souvent des Autochtones (autodéclaration), sont plus souvent francophones, ont plus de chance de vivre au Québec, ont moins de chance de déménager dans une autre province et ont plus de chance d'être embauchées.

¹ On est arrivé à cette conclusion en comparant les conjointes de militaires à celles de policiers et de fonctionnaires, mais pas en les comparant avec les conjointes d'autres civils.

² Idem.

Modélisation de régression logistique de la situation professionnelle et modélisation de régression linéaire du revenu d'emploi

L'analyse des résultats de la modélisation de régression logistique de la situation professionnelle indique que les conjointes :

- a. qui ont déménagé dans une autre province ou un autre pays;
- b. qui ont moins d'éducation; et
- c. qui ont des enfants âgés de cinq ans et moins à la maison risquent davantage de ne pas faire partie de la population active, d'être sans emploi ou de travailler moins de 30 heures par semaine.

L'analyse des résultats de la modélisation de régression linéaire du revenu d'emploi indique :

- a. qu'il est plus probable que les conjointes de militaires aient un revenu moins élevé que celui des conjointes de policiers ou de fonctionnaires; et
- b. que le revenu d'emploi des conjointes de militaires du rang soit moins élevé que celui des conjointes d'officiers.

Prochains plans : au cours de la troisième phase du PERC, on analysera les données recueillies auprès des membres du personnel de la Force régulière et de leur conjoint au sujet de la situation professionnelle, de l'expérience et du revenu. À l'aide des deux sources de données, on se penchera sur l'autre importante question de recherche du PERC (Quelle est l'expérience professionnelle des conjoints de militaires?). On prévoit que les résultats de l'analyse (qui seront inclus dans le rapport technique sur le PERC) seront accessibles en mars 2011.

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1 Introduction and Aim

1.1 Introduction

In October 2008, the Chief Military Personnel (CMP) and Director General Military Personnel Research and Analysis (DGMPPRA) prioritized the requirement to conduct research on the employment/income of Canadian Forces (CF) spouses/partners³. To date, little scientific research has focused on the employment/income of CF spouses. In addition, limited quantitative data collection or research has been directly undertaken with CF personnel and their spouses in this area. The Spousal/Partner Employment and Income (SPEI) project is an exploratory examination of this issue.

1.2 Aim

The overall aim of the SPEI project is to gather data on the employment status and income of CF spouses⁴. The key research questions include:

- a. What is the employment status and income of CF spouses vis-à-vis comparable groups?
- b. What are the employment experiences of CF spouses?

The SPEI has three phases. Phase One consisted of a literature review of key issues associated with the employment status/income of spouses of CF personnel and the development of the project methodology including questions that were administered in two surveys in December 2008. These surveys include: (1) the Fall 2008 *Your-Say Regular Forces Survey* to CF personnel; and (2) the 2008 *Quality of Life Among Military Families: A Survey of Spouses/Partners of CF Members* to CF spouses (see Coulthard and Dunn, 2009). Phase Two includes an analysis of information obtained from Statistics Canada (StatsCan) from the 2006 long-form Census. In particular, this analysis examines how CF spouses compare to the spouses of Police, Federal Public Servants (FPS) and Other Civilians (OC) in terms of socio-demographic characteristics, employment status and income. Phase Three consists of the analysis of data from the two surveys administered in December 2008 mentioned above. This report represents completion of Phase Two.

Utilizing the information obtained from StatsCan, the aim of this report is to address the first research question listed above – ‘What is the employment status and income of CF spouses vis-à-vis comparable groups?’

³ For the remainder of this report, the word “spouses” will refer to and have the same meaning as spouse/partner.

⁴ For the purposes of this project, only civilian (non-military) spouses were examined.

2 Methodology

2.1 Data Source

The data source for this report is the 2006 long-form Census⁵. The following describes the criteria that were used to determine who would be included and excluded in the analysis.

2.2 Inclusions and Exclusions

a. Inclusions

- (1) Opposite-sex couples (married or common-law) living together in a private household; and
- (2) Couples where one spouse was defined as CF, Police, FPS or OC and was between 17-55 years old.

b. Exclusions

- (1) Same-sex couples;
- (2) CF dual-service couples (given that only civilian (non-military) spouses were examined, the findings cannot be generalized to all CF spouses);
- (3) Couples living abroad or living in a collective household such as military barracks; and
- (4) Members of the Reserves, unless they declared their job or business the week before the 2006 long-form Census to be in the CF.

2.3 Group Definitions

Couples included in the population were separated into eight groups including CF, Police, FPS and OC (one of each for male spouses and one of each for female spouses). Tables 1 and 2 outline how these groups were defined as well as their sample sizes⁶ and estimated population sizes⁷.

⁵ See <http://www12.statcan.gc.ca/census-recensement/2006/ref/question-guide-eng.cfm> for further details.

⁶ Sample size is the actual number of respondents who answered the 2006 long-form Census.

⁷ The estimated population size is calculated based on a complex mathematical formula that intends to allow researchers to discuss entire populations.

Table 1: Female Spousal Group Definitions

Group		Sample Size	Estimated Population Size⁸	Definition
CF	All	5,945	30,670	Female spouses of male CF personnel
	Officer	1,805	9,195	Female spouses of male CF Officers
	NCM	4,140	21,475	Female spouses of male CF NCMs
Police		3,745	18,205	Female spouses of male Royal Canadian Mounted Police (RCMP), Ontario Provincial Police (OPP) or Sureté du Quebec personnel
FPS		16,785	83,780	Female spouses of male FPS
OC		903,865	4,472,410	Female spouses of males who are not CF, Police or FPS

Table 2: Male Spousal Group Definitions

Group		Sample Size	Estimated Population Size	Definition
CF	All	475	2,385	Male spouses of female CF personnel
	Officer	140	725	Male spouses of female CF Officers
	NCM	335	1,660	Male spouses of female CF NCMs
Police		700	3,425	Male spouses of female RCMP, OPP or Sureté du Quebec personnel
FPS		20,120	100,415	Male spouses of female FPS
OC		876,945	4,347,690	Male spouses of females who are not CF, Police or FPS

2.4 Statistical Analysis

In Section 3 of this report, socio-demographic results are presented based on population estimations. The groups analyzed included CF, Police, FPS and OC (as defined in Table 1). In addition, the CF group was further broken down to examine the differences between Non-Commissioned Members (NCMs) and Officers.

In Section 4 of this report, further analyses were conducted to explore whether socio-demographic characteristics could explain the differences in employment status and income among the various female spousal groups. Specifically, logistic regression and linear regression modeling exercises were conducted to examine employment status and income. Logistic regression was utilized to further understand how various socio-demographic characteristics impact employment status. Linear regression was used to further understand how various socio-demographic characteristics impact employment income.

⁸ Randomly rounded values.

The data presented in Section 3 and Section 4 are based on female spousal groups. Due to the small sample sizes of male spouses, as well as limited information pertaining to couples, results on male spouses and couples are presented in this report as Annexes A and B respectively.

3 Socio-Demographic Results

3.1 Female Spouses of Canadian Forces Personnel are Youngest

When examining the percentages⁹ in the age categories of the four groups, Figure 1 demonstrates that female spouses of CF personnel appear to be the youngest group. Specifically, female spouses of CF personnel have the highest percentages in the age categories of “24 or younger” (7.8%) and “25-34” (31%), while they have the lowest percentage in the “45 or older” age category (22.1%). In contrast, female spouses of FPS appear to be the oldest group, having the lowest percentages in the age categories of “24 or younger” (2.8%) and “25-34” (23.3%), and the highest percentage in the age category of “45 or older” (38.4%).

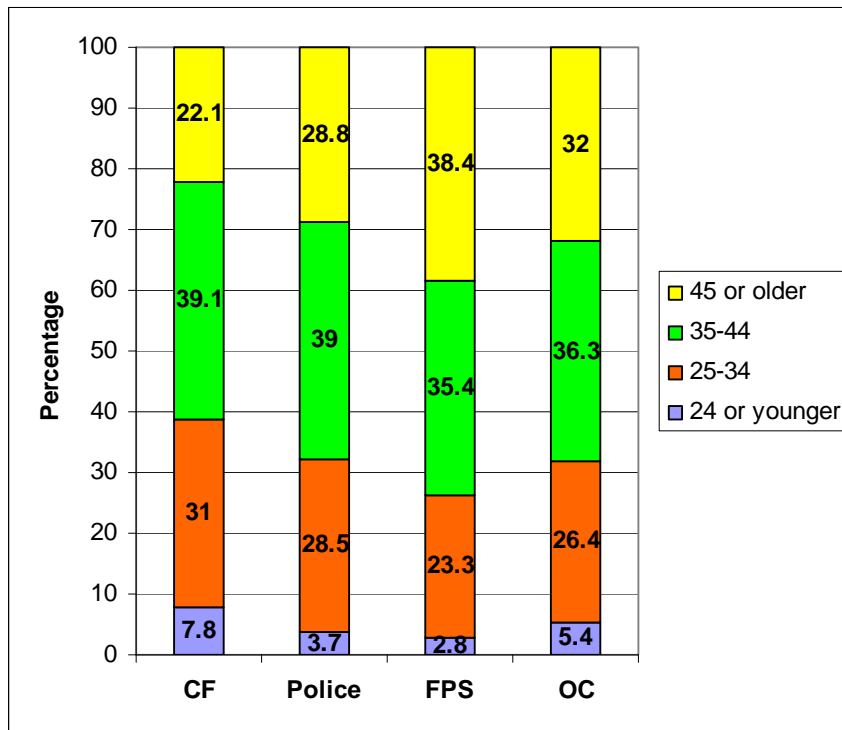


Figure 1: Age Distribution of Female Spouses by Group

⁹ Due to 2006 long-form Census confidentiality rules, percentages in the bars of some figures may not add up to 100%.

As Table 3 shows, these findings are also supported by the mean¹⁰ and median ages of female spouses by group such that female spouses of CF are youngest (37.3 and 36.8 respectively) while female spouses of FPS are oldest (40.9 and 41.2 respectively).

Table 3: Mean and Median Ages of Female Spouses by Group

Group	Mean	Median
CF	37.3	36.8
Police	39.1	38.7
FPS	40.9	41.2
OC	39.3	39.4

3.1.1 Female Spouses of Canadian Forces Officers are older than those of Canadian Forces NCMs

Figure 2 reveals that female spouses of CF Officers are older than female spouses of CF NCMs. For instance, larger percentages of female spouses of CF Officers are found in the age categories of “35-44” (41.7%) and “45 or older” (26.1%), while larger percentages of female spouses of CF NCMs are found in the age categories of “24 or younger” (9.7%) and “25-34” (32%).

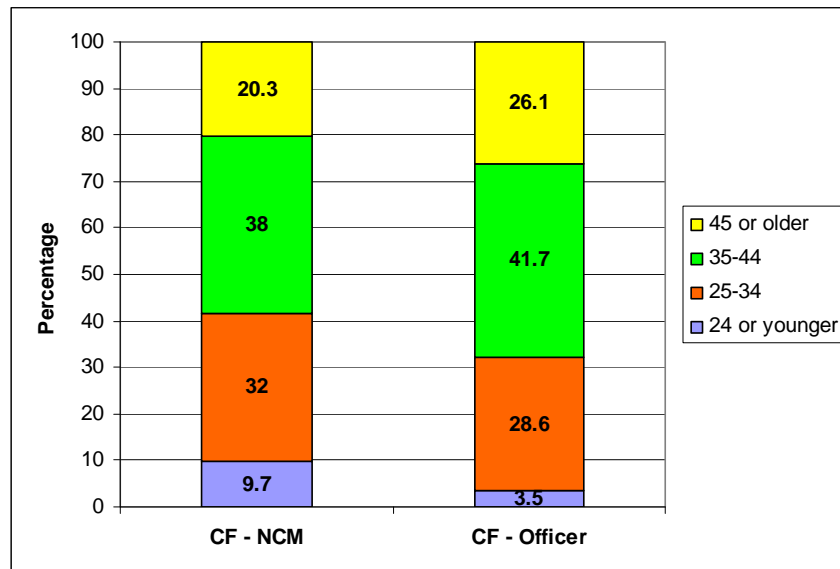


Figure 2: Age Distribution of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

As Table 4 indicates, these findings are also supported by the mean and median ages of female spouses of CF NCMs and CF Officers, such that female spouses of CF Officers are older (38.9 and 38.5 respectively) compared to female spouses of CF NCMs (36.5 and 36.1 respectively).

¹⁰ The mean is the average score of a distribution. The median is the “point in a distribution of scores above and below which exactly half of the cases fall” (Healey, 1999, p. 531).

Table 4: Mean and Median Ages of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

Group	Mean	Median
CF – NCM	36.5	36.1
CF – Officer	38.9	38.5

3.2 Fewer Female Spouses of Canadian Forces Personnel have University Level Education¹¹

In general, it appears that fewer female spouses of CF and OC have university level education than female spouses of Police and FPS. As illustrated in Figure 3, when combining the “bachelor’s degree” and “more than bachelor’s degree” categories, female spouses of CF and OC have lower percentages (22.7% and 25.1% respectively) than do the female spouses of Police (29.6%) and FPS (38%). In addition, female spouses of CF and OC also appear to have the highest percentages in the “less than high school completion” category (6.9% and 11.1% respectively).

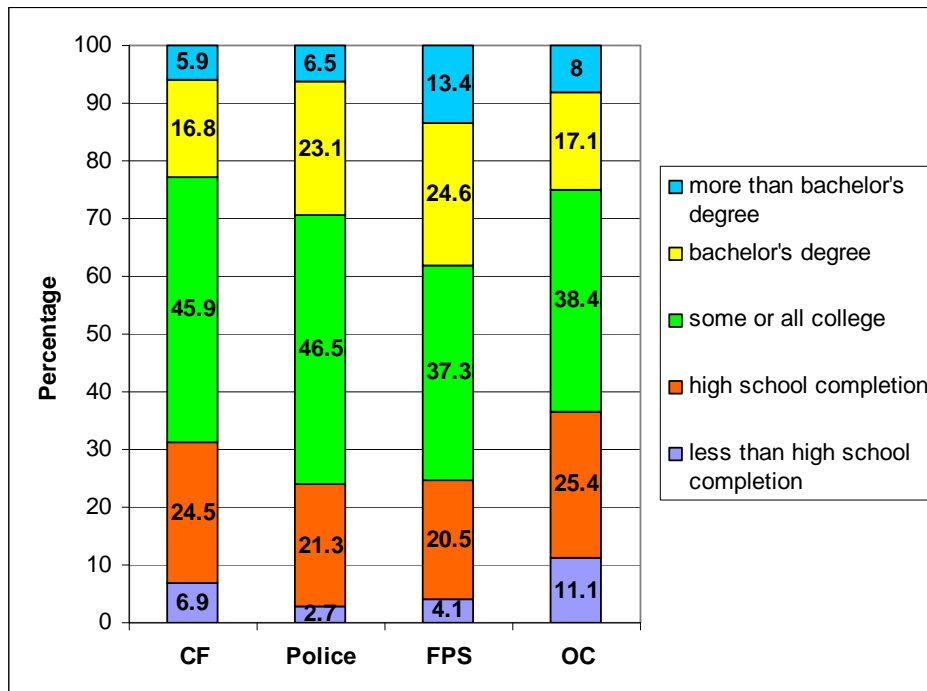


Figure 3: Highest Level of Education of Female Spouses by Group

¹¹ This was found when comparing female spouses of CF to female spouses of Police and FPS, but not when comparing female spouses of CF to female spouses of OC.

3.2.1 Fewer Female Spouses of Canadian Forces NCMs have University Level Education Compared to those of Canadian Forces Officers

As displayed in Figure 4, fewer female spouses of CF NCMs have university level education. Specifically, when combining the “bachelor’s degree” and “more than bachelor’s degree” categories, female spouses of CF Officers have a higher percentage (38.6%) than female spouses of CF NCMs (15.8%). Further, when combining the “less than high school completion” and “high school completion” categories, female spouses of CF NCMs have a higher percentage (35.5%) than female spouses of CF Officers (21.7%).

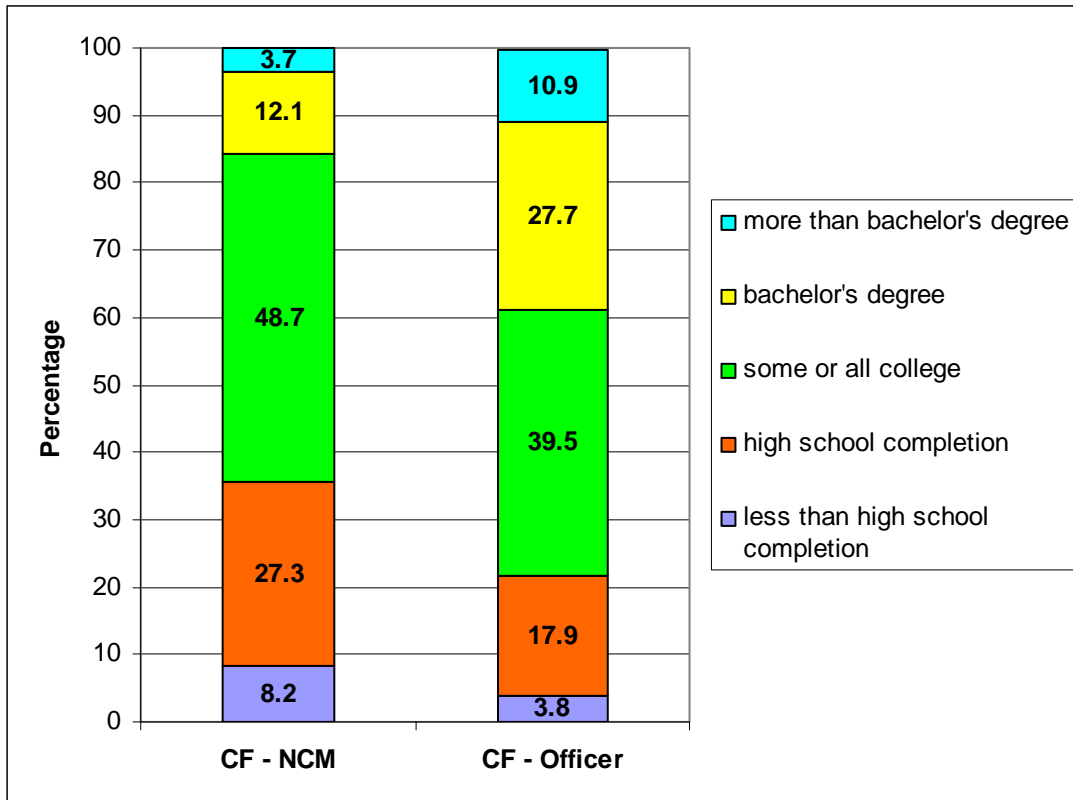


Figure 4: Highest Level of Education of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

3.3 Female Spouses of Canadian Forces Personnel have Similar School Attendance Compared to Other Groups

Figure 5 demonstrates that the percentages of those spouses attending school¹² are fairly similar across the four groups. For instance, percentages ranged from 11.2% for FPS to 13.6% for Police.

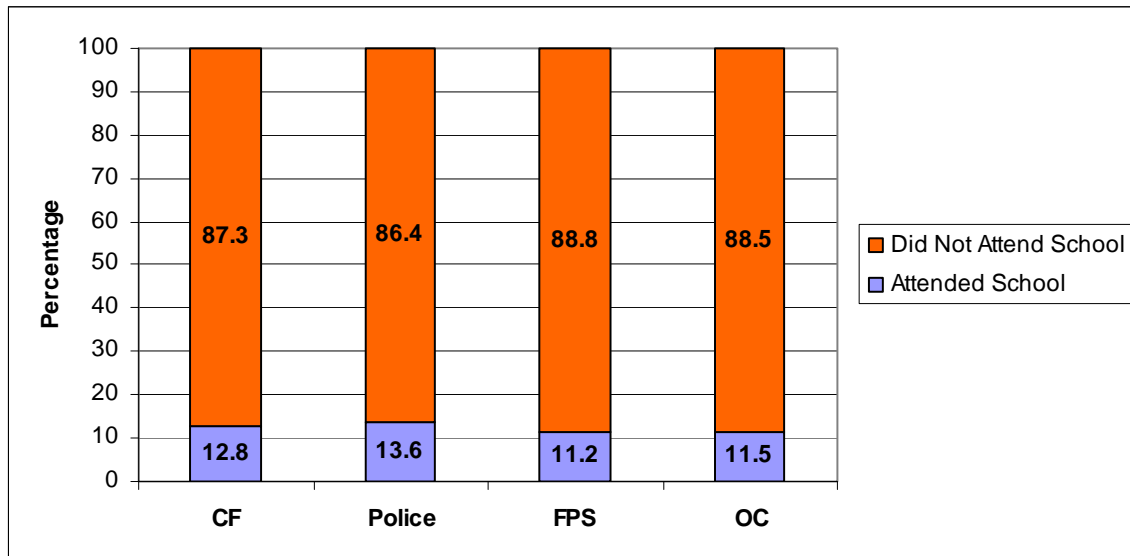


Figure 5: School Attendance of Female Spouses by Group

3.3.1 Female Spouses of Canadian Forces NCMs and Canadian Forces Officers have Similar School Attendance

Figure 6 shows that there is little difference in the percentages of female spouses of CF NCMs and CF Officers who were attending school (12.7% and 12.9% respectively).

¹² School attendance must have taken place in the previous nine months before the 2006 long-form Census. Attendance could be either full-time or part-time and was only counted if courses were used as credits toward a certificate, diploma or degree.

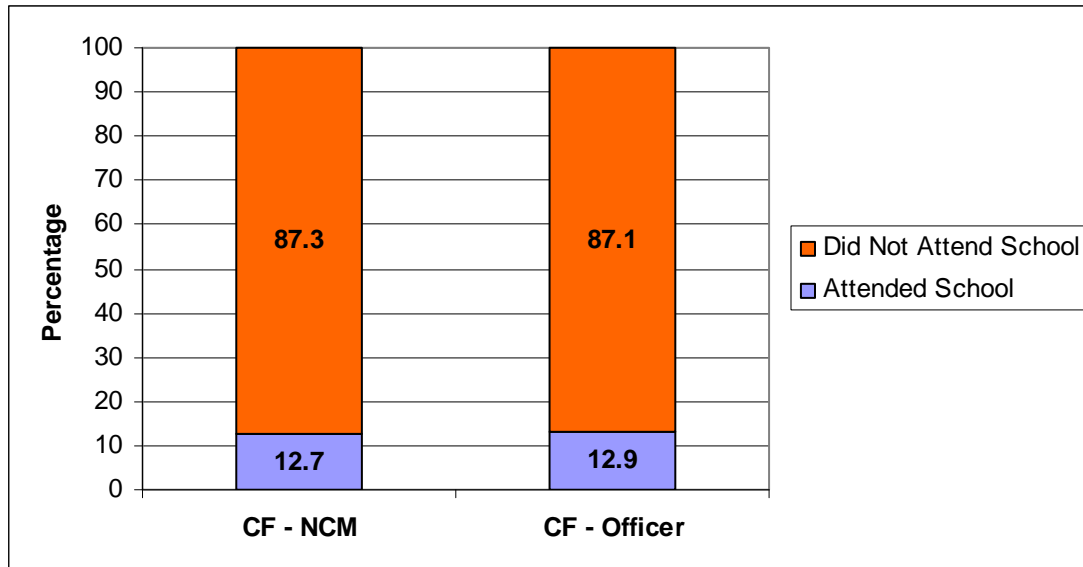


Figure 6: School Attendance of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

3.4 Female Spouses of Canadian Forces Personnel are less likely to Self-report as Visible Minorities

When examining visible minority and Aboriginal status, Figure 7 demonstrates that there is little difference between female spouses of CF and Police. Across all four groups, very little difference exists within the “aboriginal self-reporting” category such that percentages range from 2.7% (FPS) to 3.4% (Police). There are larger differences with the percentages in the “visible minority” category ranging from 3.3% (CF) to 16.6% (OC).

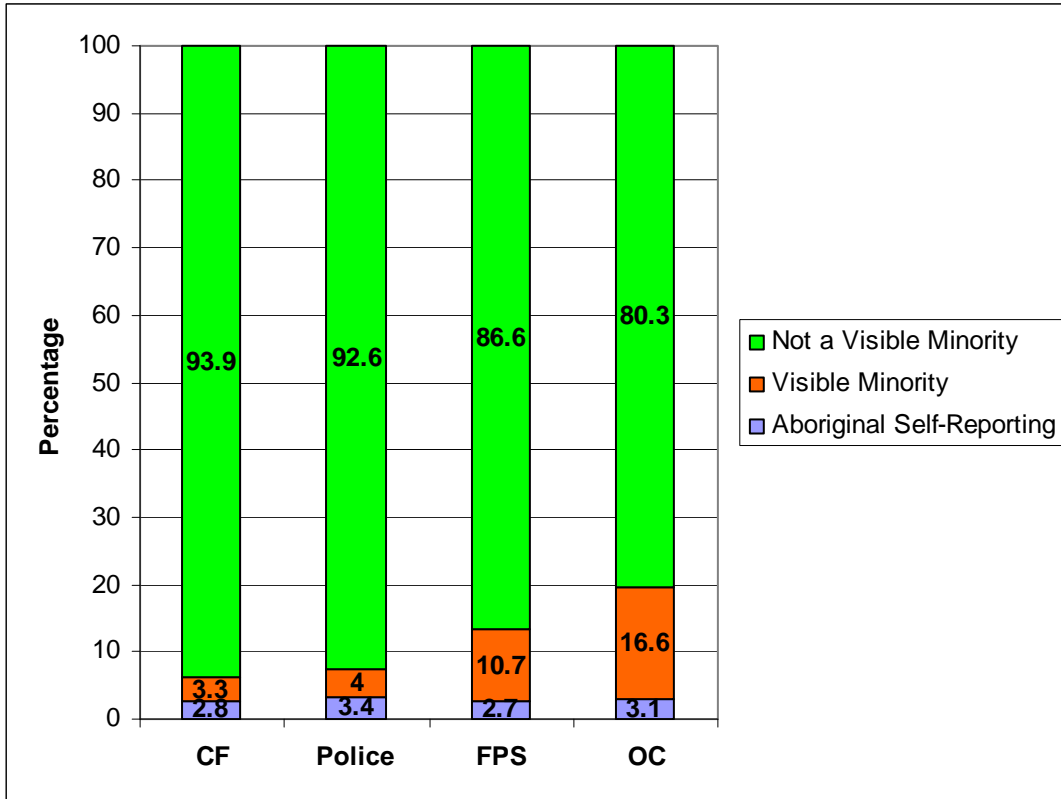


Figure 7: Visible Minority and Aboriginal Status of Female Spouses by Group

3.4.1 Female Spouses of Canadian Forces NCMs are more likely to Self-report as Aboriginal than those of Canadian Forces Officers

As Figure 8 indicates, there are more female spouses of CF NCMs (3.3%) self-reporting as Aboriginal compared to female spouses of CF Officers (1.7%). In addition, close to 95% of all female spouses of both CF NCMs and CF Officers are not visible minorities.

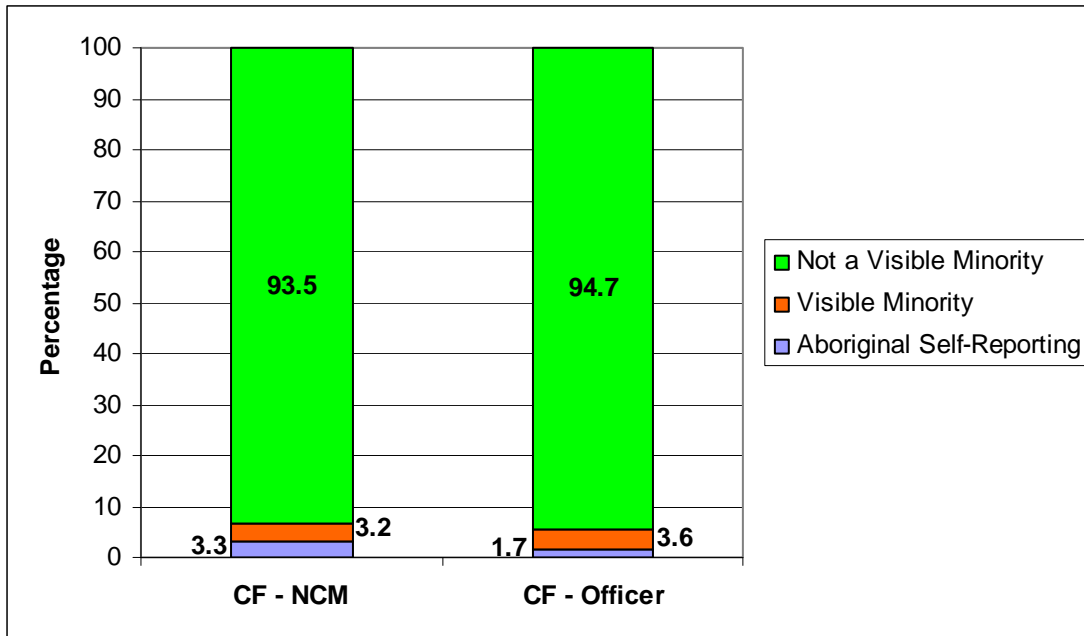


Figure 8: Visible Minority and Aboriginal Status of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

3.5 Female Spouses of Canadian Forces Personnel have fewer Children and show little Difference in the Presence of young children at home

Figure 9 illustrates that the largest group of female spouses with two or more children¹³ at home is Police (52.1%), followed by OC (47.7%), FPS (45.2%) and CF (44.8%). In addition, female spouses of CF have the highest percentages of “no children” (31%) and “one child” (24.2%) at home, while female spouses of Police and OC have the highest percentages in the “three or more children” category (15.2% and 14.9% respectively).

¹³ The definition of children does not have an age limit.

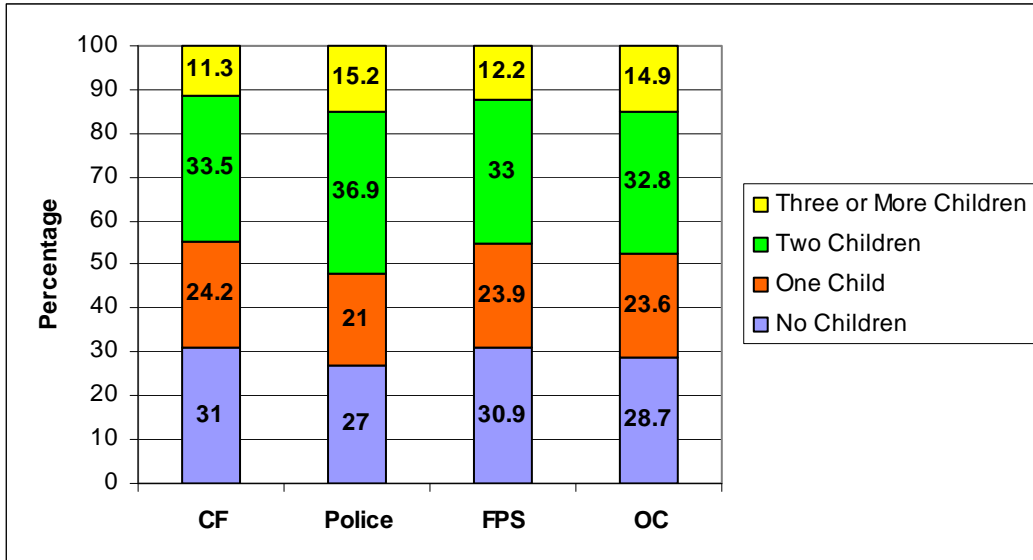


Figure 9: Number of Children of Female Spouses by Group

Figure 10 displays that there is little difference in the percentages of the presence of at least one young child¹⁴ at home, between CF (27.9%), Police (27.5%), OC (26.2%) and FPS (23.1%).

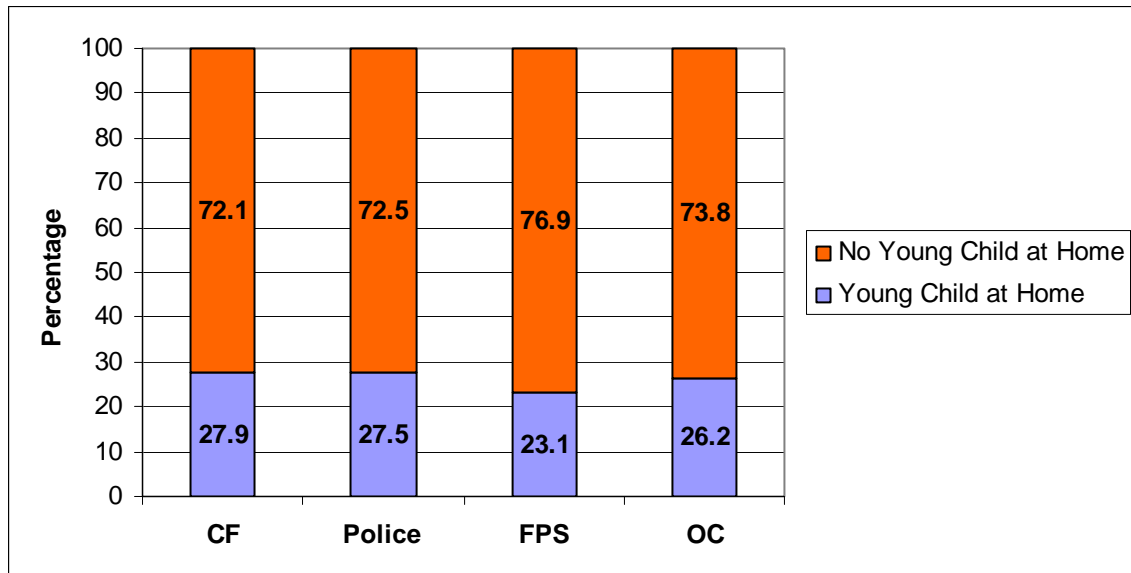


Figure 10: Presence of Young Child(ren) at home of Female Spouses by Group

¹⁴ Young child is defined as five years old or younger.

3.5.1 Female Spouses of Canadian Forces Officers have more Children and show little Difference in the Presence of young children at home than those of Canadian Forces NCMs

Female spouses of CF Officers have more children than female spouses of CF NCMs. This is shown in Figure 11 when combining the “two children” and “three or more children” categories (49.6% v 42.7% respectively). Further, female spouses of CF NCMs have a higher percentage in the “no children” category (32.5%) compared to female spouses of CF Officers (27.7%).

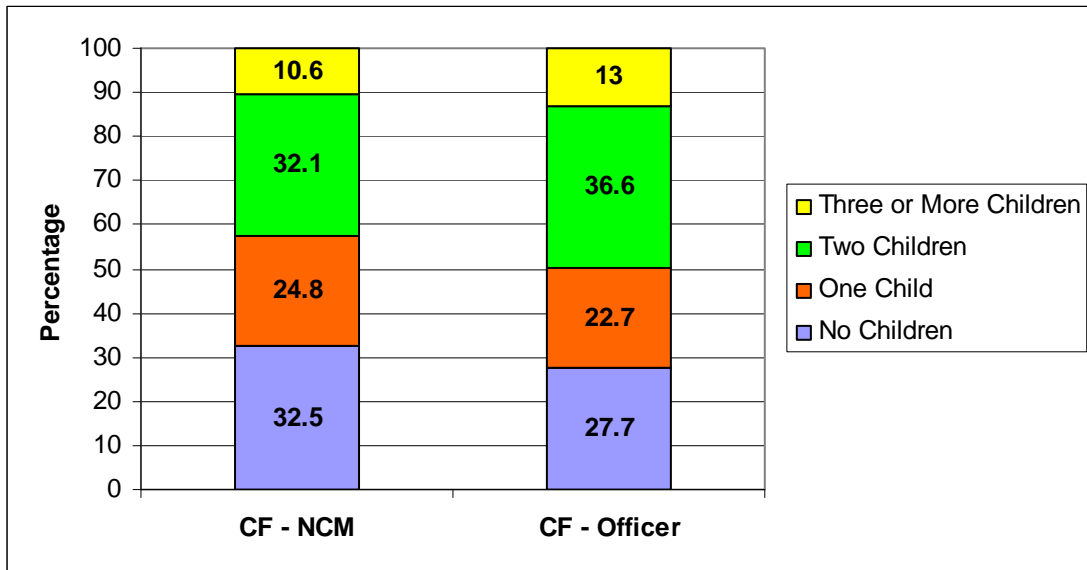


Figure 11: Number of Children of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

Figure 12 shows that over one-quarter of female spouses of both CF NCMs and CF Officers have a young child at home. Specifically, there are slight differences in the percentages of the presence of at least one young child at home between female spouses of CF Officers (29.8%) and CF NCMs (27.1%).

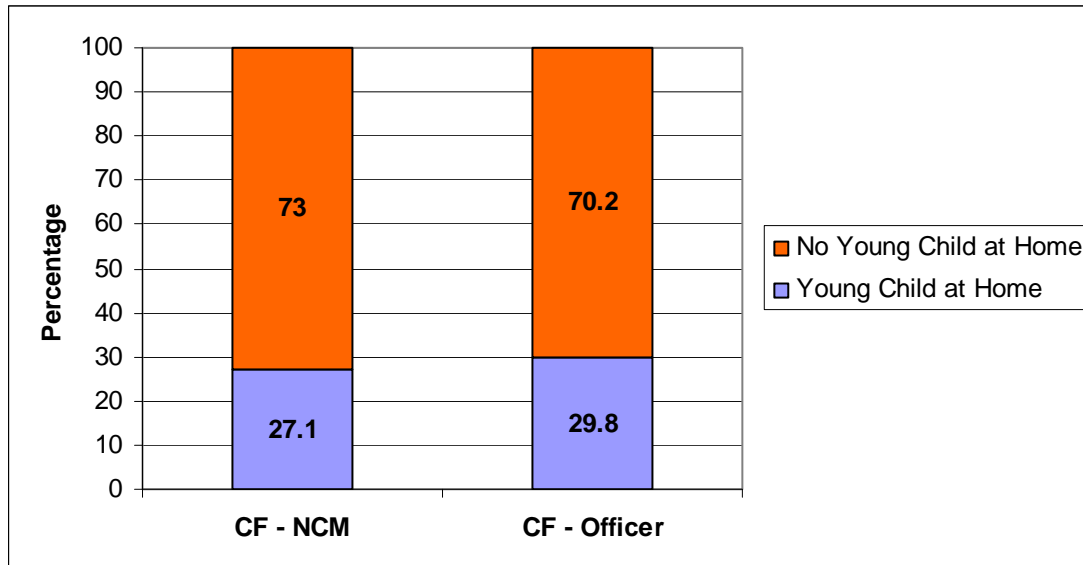


Figure 12: Presence of young Child(ren) at home of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

3.6 Female Spouses of Canadian Forces Personnel are more likely to Report English as their First Official Language¹⁵

With respect to First Official Language (FOL)¹⁶, Figure 13 reveals that a higher percentage of female spouses of Police (31.4%) report French as their FOL compared to FPS (29.8%), CF (24.9%) and OC (23.2%).

¹⁵ This was found when comparing female spouses of CF to female spouses of Police and FPS, but not when comparing female spouses of CF to female spouses of OC.

¹⁶ A small percentage also reported “English and French” as their FOL: CF-0.3%; Police-0.2%; FPS-0.9%; and OC-1.0% or “Neither English or French” as their FOL: CF-0.1%; Police-0.1%; FPS-0.2%; and OC- 1.0%.

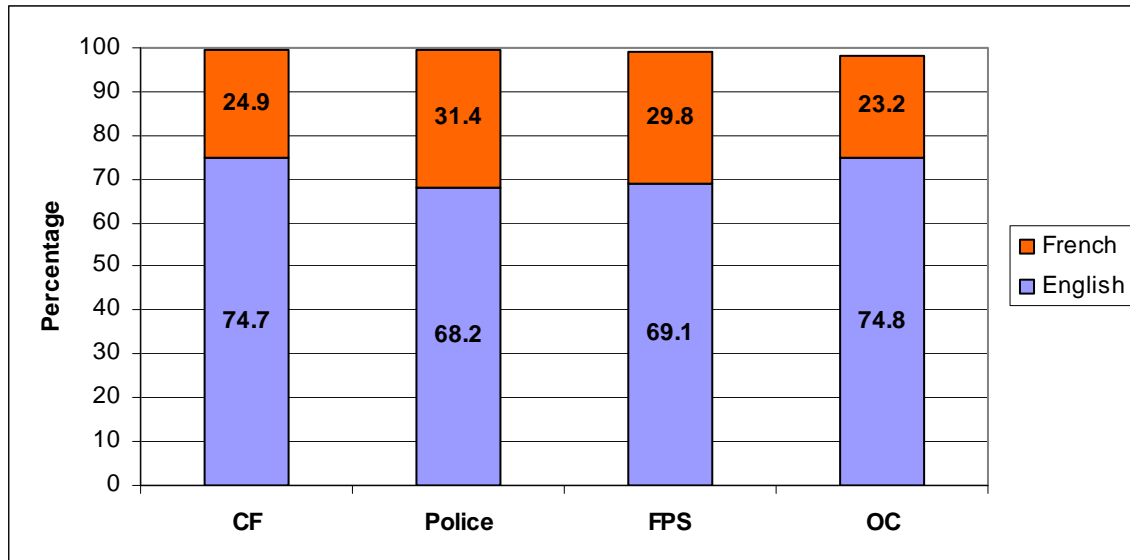


Figure 13: First Official Language of Female Spouses by Group

Additionally, as can be seen in Table 5, female spouses of all four groups have a similar knowledge of the official language used in their residential province.

Table 5: Knowledge of Official Language of Female Spouses by Group.

Knowledge of Official Language	CF	Police	FPS	OC
Speak language of province	98.4%	99.3%	98.4%	97.8%
Live in Quebec without knowing French	0.6%	0.2%	0.9%	1.0%
Live outside of Quebec without knowing English	1.0%	0.6%	0.7%	1.2%

3.6.1 Female Spouses of Canadian Forces Officers are more likely to Report English as their First Official Language than those of Canadian Forces NCMs

More female spouses of CF Officers report having English as their FOL¹⁷ (81%) than female spouses of CF NCMs (71.9%). In contrast, a higher percentage of female spouses of CF NCMs report having French as their FOL (27.5%) compared to female spouses of CF Officers (18.7%).

¹⁷ A small percentage also reported “English and French” as their FOL: CF-NCM: 0.4%; and CF-Officer: 0.1% or “Neither English or French” as their FOL: CF-NCM: 0.1% and CF-Officer: 0.2%.

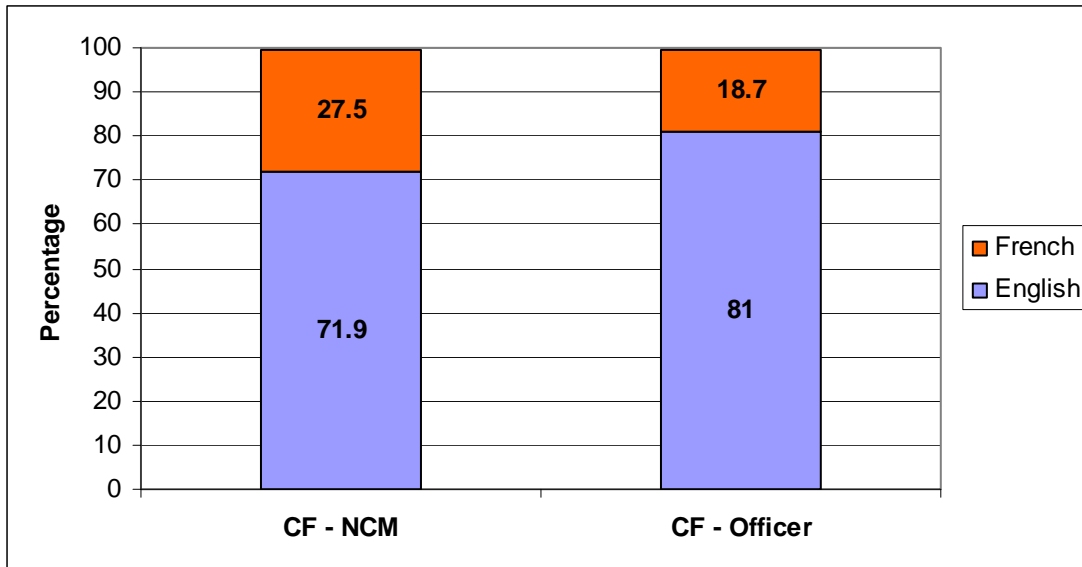


Figure 14: First Official Language of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

Table 6 displays that female spouses of CF NCMs and CF Officers have a similar knowledge of the official language used in their residential province.

Table 6: Knowledge of Official Language of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

Knowledge of Official Language	CF – NCM	CF – Officer
Speak language of province	98.5%	98.3%
Live in Quebec without knowing French	0.4%	0.9%
Live outside of Quebec without knowing English	1.1%	0.8%

3.7 Female Spouses of Canadian Forces Personnel are more likely to live in Atlantic Canada and less likely to live in Quebec

Figure 15 demonstrates the regional distribution of residences for the four groups¹⁸. When examining these data, female spouses of CF have the highest percentage located in Atlantic Canada (24.1%) and the lowest percentage located in Quebec (18.2%). Female spouses of CF also have very similar percentages living in the Prairies (16%) and Ontario (31.3%) as Police (15.9% and 31.1% respectively) and a very similar percentage living in British Columbia (10.1%) as FPS (10.2%). It should be noted that these results may be influenced by group concentration in certain geographical areas (e.g., OPP in Ontario).

¹⁸ A small percentage also lived in the Territories: CF-0.3%; Police-1.5%; FPS-0.5%; and OC-0.3%.

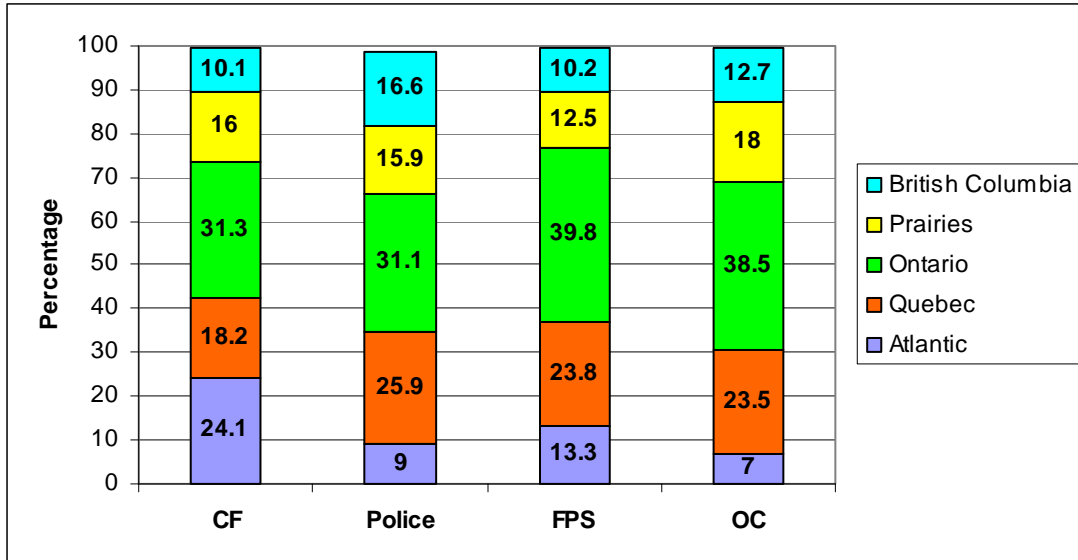


Figure 15: Regional Distribution of Female Spouses by Group

3.7.1 Female Spouses of Canadian Forces Officers are more likely to live in Ontario than those of Canadian Forces NCMs

As Figure 16 shows, the largest differences in the percentages of regional distribution¹⁹ are in Ontario and Quebec. Specifically, female spouses of CF Officers have a higher percentage in Ontario (38.4%) compared to CF NCMs (28.2%), while female spouses of CF NCMs have a higher percentage in Quebec (21%) compared to CF Officers (11.5%). In contrast, the smallest difference is apparent in the Prairies, where 16.1% of female spouses of CF NCMs reside compared to 15.8% of CF Officers.

¹⁹ A small percentage also lived in the Territories: CF NCM-0.2% and CF Officer-0.4%.

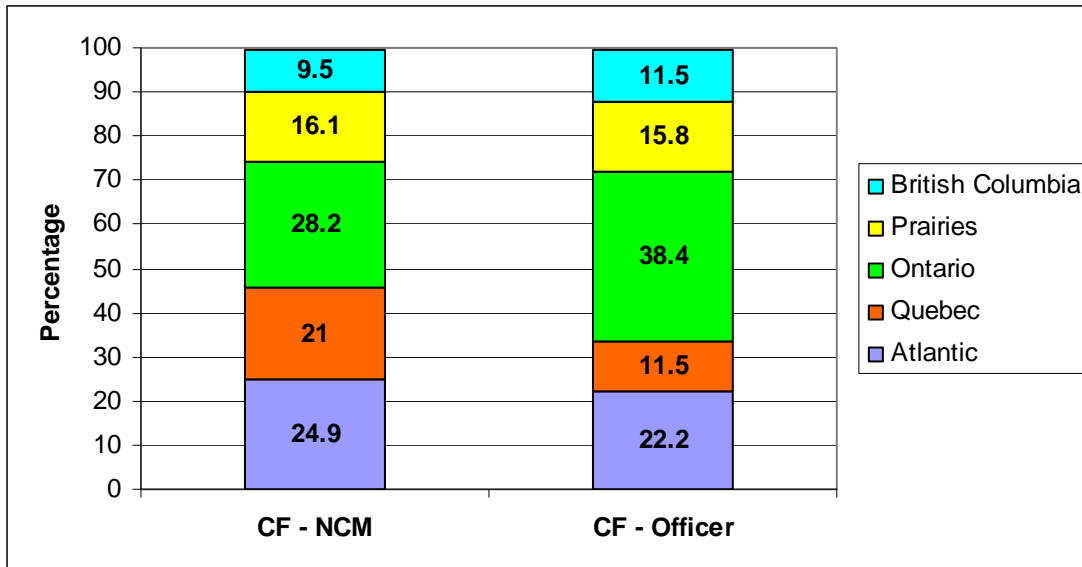


Figure 16: Regional Distribution of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

3.8 Female Spouses of Canadian Forces Personnel are more likely to move Provincially compared to Other Groups

As revealed in Table 7, more than 75% of female spouses associated with all four groups lived at the same dwelling (when the 2006 long-form Census was taken) as they did one year earlier. Specifically, female spouses of FPS had the highest percentage of those who lived in the same dwelling (86.8%), while CF had the lowest percentage (77.1%). More importantly, female spouses of CF had the highest percentage of provincial moves (8.2%), followed by Police (3.3%), FPS (2.1%) and OC (1%), such that they lived in a different province (when the 2006 long-form Census was taken) than they had one year earlier.

Interestingly, compared to the one-year mobility patterns described above, there is considerably more mobility occurring when examining the residential locations of female spouses five years before the 2006 long-form Census was taken. A much lower percentage of female spouses of CF remained in the same dwelling (29.8%) compared to Police (41.8%), OC (50.9%) and FPS (52.3%). Female spouses of CF were also much more likely to have moved provincially (27.4%), followed by Police (11.3%), FPS (8%) and OC (3.2%).

Table 7: One-Year and Five-Year Residential Mobility of Female Spouses by Group

One Year Before the Census	Place of Residence	CF	Police	FPS	OC
	Same dwelling	77.1%	82.8%	86.8%	84.4%
Same CSD ²⁰ ; different dwelling	7.1%	5.6%	6.9%	8.9%	
Different CSD; same province	6.4%	8.2%	3.4%	4.5%	
Different province	8.2%	3.3%	2.1%	1.0%	
Outside Canada	1.2%	0.2%	0.8%	1.2%	
Five Years Before the Census	Same dwelling	29.8%	41.8%	52.3%	50.9%
	Same CSD; different dwelling	20.3%	16.7%	23.8%	25.1%
	Different CSD; same province	19.0%	29.5%	12.8%	15.2%
	Different province	27.4%	11.3%	8.0%	3.2%
	Outside Canada	3.5%	0.7%	3.1%	5.5%

3.8.1 Female Spouses of Canadian Forces Officers are more likely to move Provincially than those of Canadian Forces NCMs

Table 8 indicates that the percentages of female spouses who lived in the same dwelling (as they did one year before the 2006 long-form Census) were almost identical for CF NCMs (77.2%) and CF Officers (77%). On the contrary, when combining the “different province” and “outside Canada” categories, there was more one-year mobility apparent for female spouses of CF Officers (12.1%) than female spouses of CF NCMs (8.2%).

In terms of five-year mobility, differences between female spouses for all place of residence categories are larger. Specifically, the smallest difference is still in the “same dwelling” category (CF NCM - 30.3% and CF Officer - 28.5%), while the largest difference is in the “different province” category (CF NCM - 25.3% and CF Officer - 32.3%).

Table 8: One-Year and Five-Year Mobility of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

One Year Before the Census	Place of Residence	CF – NCM	CF – Officer
	Same dwelling	77.2%	77.0%
Same CSD; different dwelling	8.1%	4.6%	
Different CSD; same province	6.5%	6.3%	
Different province	7.6%	9.6%	
Outside Canada	0.6%	2.5%	
Five Years Before the Census	Same dwelling	30.3%	28.5%
	Same CSD; different dwelling	21.7%	16.9%
	Different CSD; same province	20.3%	16.0%
	Different province	25.3%	32.3%
	Outside Canada	2.4%	6.3%

²⁰ CSD stands for Census Sub-Division.

3.9 Female Spouses of Canadian Forces Personnel are less likely to be Employed²¹

As Figure 17 illustrates, the largest percentage of female spouses that are “not in the labour force” corresponds to CF (21.5%), followed by OC (18.6%), Police (16.1%), and FPS (15.1%). Further, the percentage of those who are “unemployed” is highest for CF (5.1%) and lowest for Police (3.5%). Lastly, female spouses of CF have the lowest percentage of those “employed” at 73.4%.

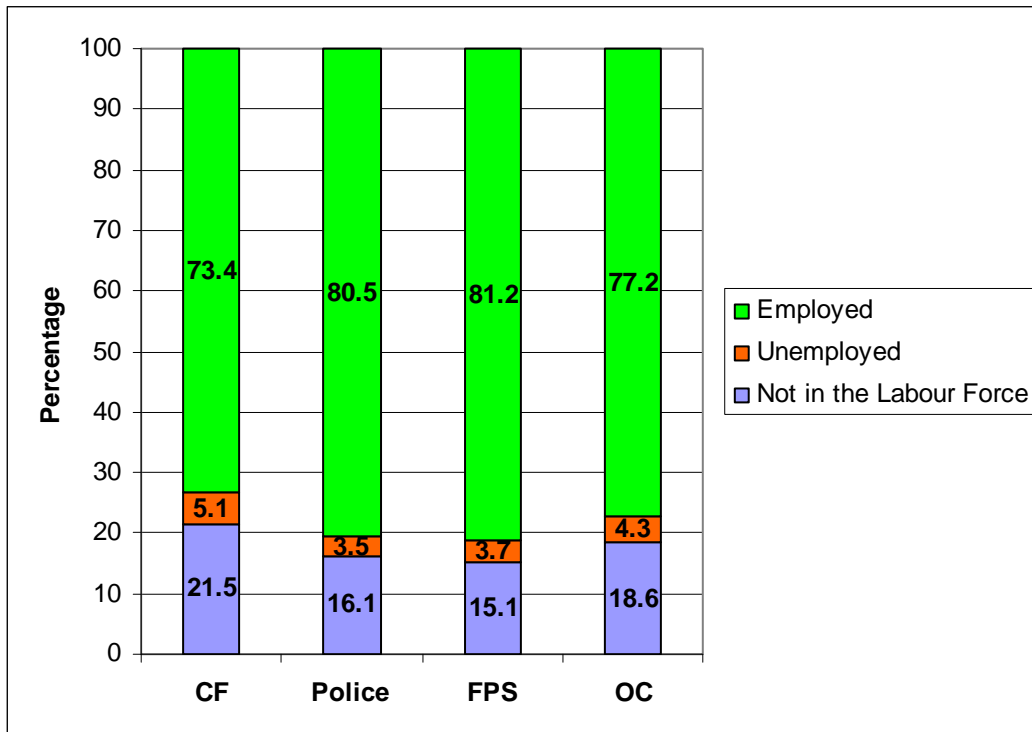


Figure 17: Employment Status of Female Spouses by Group.

3.9.1 Female Spouses of Canadian Forces NCMs are more likely to be Employed than those of Canadian Forces Officers

Figure 18 displays that more female spouses of CF NCMs are “employed” (74.9%) than female spouses of CF Officers (70%). In addition, more female spouses of CF Officers are “not in the labour force” (24%) and “unemployed” (5.9%).

²¹ Labour Force Status/Employment Status was determined as of one week before the 2006 long-form Census. “Employed” was defined as in the labour force and employed; “unemployed” was defined as in the labour force and seeking employment; and “not in the labour force” was defined as not in the labour force and not seeking employment.

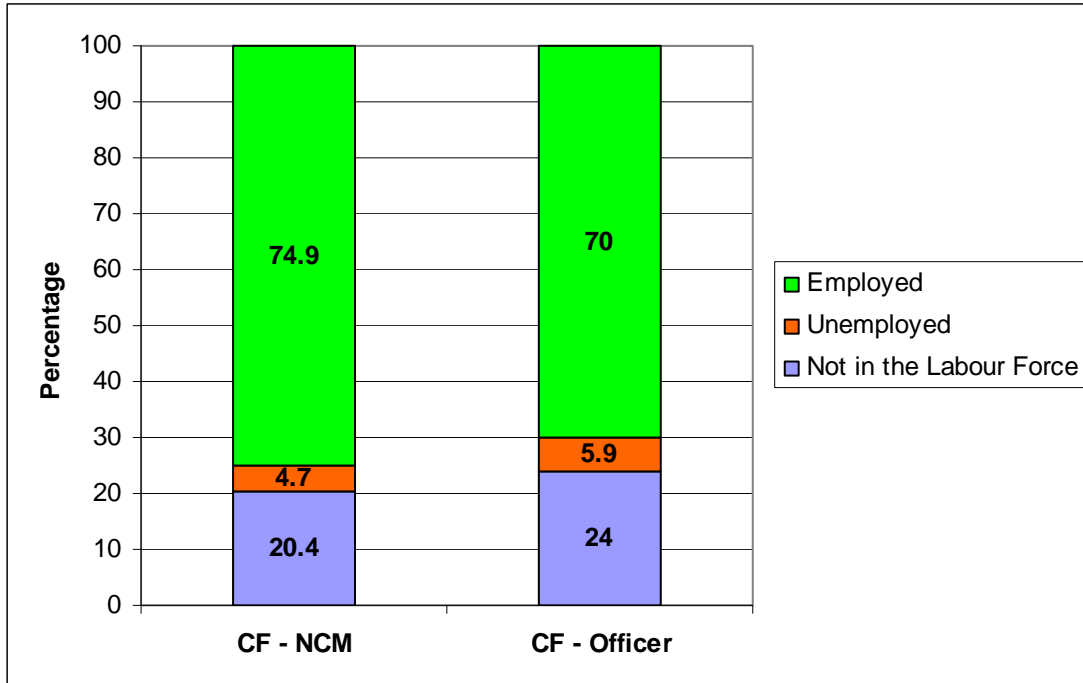


Figure 18: Employment Status of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

3.10 Distribution of Female Spousal Employment by Industry

When examining the highest percentages of female spousal employment by industry, Table 9 shows that for female spouses of CF, Police and FPS, “Health Care and Social Assistance” and “Public Administration” were the two industries with the highest percentages. For female spouses of OC, the two industries with the highest percentages were “Health Care and Social Assistance” and “Retail Trade”.

Table 9: Employment by Industry of Female Spouses by Group

Industry Category	CF	Police	FPS	OC
Accommodation and Food Services	6.1%	2.3%	2.5%	5.9%
Administrative and Support, Waste Management and Remediation Services	4.7%	1.8%	2.5%	3.8%
Agriculture, Forestry, Fishing and Hunting	0.3%	0.6%	0.4%	1.8%
Arts, Entertainment and Recreation	2.1%	1.6%	1.3%	1.6%
Construction	0.6%	0.7%	0.5%	1.9%
Educational Services	11.1%	15.1%	11.8%	10.7%
Finance and Insurance	4.8%	5.6%	4.7%	6.4%
Health Care and Social Assistance	20.8%	24.9%	18.5%	19.4%
Information and Cultural Industries	1.7%	1.4%	2.3%	2.4%
Management of Companies and Enterprises	0.0%	0.1%	0.1%	0.1%
Manufacturing	2.9%	2.5%	2.9%	8.4%
Mining and Oil and Gas Extraction	0.1%	0.3%	0.2%	0.7%
Other Services (except public administration)	5.2%	3.4%	4.0%	5.1%
Professional, Scientific and Technical Services	5.5%	4.4%	6.0%	6.9%
Public Administration	15.6%	21.9%	30.7%	5.4%
Real Estate and Rental and Leasing	1.6%	1.3%	0.9%	1.6%
Retail Trade	13.6%	8.6%	7.6%	11.2%
Transportation and Warehousing	1.4%	1.5%	1.6%	2.8%
Utilities	0.3%	0.4%	0.3%	0.5%
Wholesale Trade	1.5%	1.7%	1.3%	3.5%

3.10.1 Distribution of Female Spousal Employment by Industry of Canadian Forces NCMs and Canadian Forces Officers

When the distribution of female spousal employment by industry of CF NCMs and CF Officers was examined, Table 10 shows that the biggest differences were found in the industries of “Educational Services” (CF NCM - 9.7% and CF Officer – 14.5%) and “Health Care and Social Assistance” (CF NCM - 19.6% and CF Officer – 23.5%).

*Table 10: Employment by Industry of Female Spouses by Canadian Forces
NCM and Canadian Forces Officer*

Industry Category	CF – NCM	CF – Officer
Accommodation and Food Services	7.1%	3.4%
Administrative and Support, Waste Management and Remediation Services	5.3%	3.4%
Agriculture, Forestry, Fishing and Hunting	0.3%	0.2%
Arts, Entertainment and Recreation	2.1%	2.0%
Construction	0.7%	0.4%
Educational Services	9.7%	14.5%
Finance and Insurance	4.6%	5.2%
Health Care and Social Assistance	19.6%	23.5%
Information and Cultural Industries	1.7%	1.7%
Management of Companies and Enterprises	0.0%	0.1%
Manufacturing	2.8%	3.0%
Mining and Oil and Gas Extraction	0.1%	0.3%
Other Services (except public administration)	5.8%	4.0%
Professional, Scientific and Technical Services	5.3%	6.0%
Public Administration	14.9%	17.2%
Real Estate and Rental and Leasing	1.7%	1.5%
Retail Trade	14.6%	11.0%
Transportation and Warehousing	1.6%	0.9%
Utilities	0.2%	0.5%
Wholesale Trade	1.7%	1.2%

3.11 Female Spouses of Canadian Forces Personnel have Lower Income

Figure 19 reveals that female spouses of CF have the lowest percentage (6.7%) in the employment income category of “\$60,000 or more” compared to OC (9.9%), Police (16.1%), and FPS (19.2%). In the employment income category of \$40,000 - \$59,999, female spouses of CF also have the lowest percentage (12.7%), followed by OC (14.5%), Police (18.3%) and FPS (22.3%). It should be noted that the income data presented in this report does not include female spouses who are in the CF. As a result, this could provide a possible explanation for the income discrepancy with the other groups. This discrepancy will be further explored in Phase Three of this research.

In the lower employment income categories, the female spouses of CF have the highest percentage (16.4%) in the “\$0” employment income category, followed by OC (15.1%), FPS (12%) and Police (11.5%). Female spouses of CF also have the highest percentage (12.6%) in the

“less than \$5,000”²² employment income category as well as the highest percentage (27.1%) in the “\$5,000-\$19,999” employment income category.

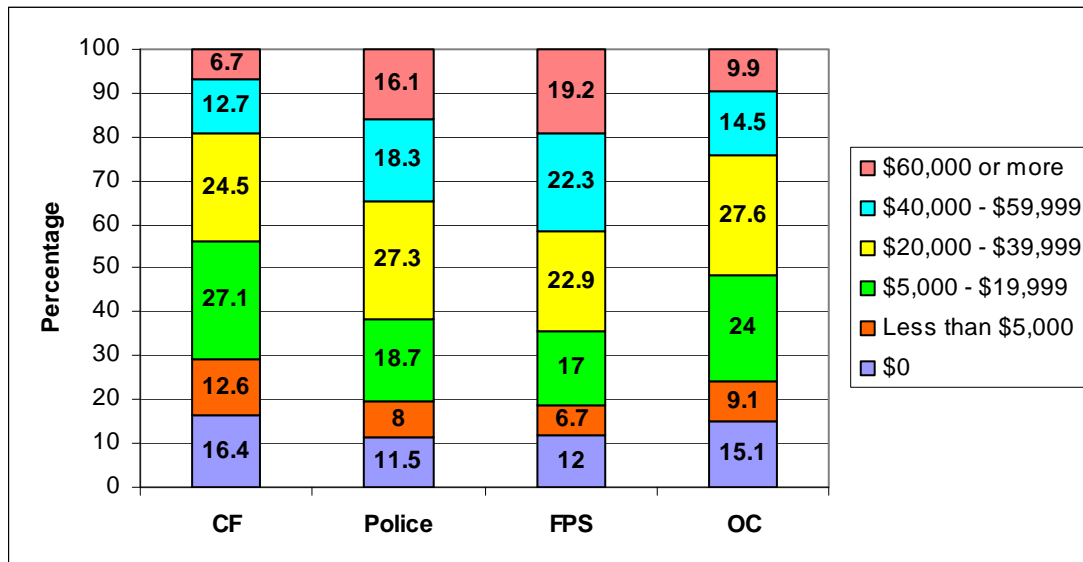


Figure 19: Employment Income of Female Spouses by Group

Additionally, Table 11 indicates that female spouses of CF had a lower average employment income (\$21,967) in 2005 compared to OC (\$27,030), Police (\$32,316) and FPS (\$35,724). In other words, female spouses of CF had an average employment income that was \$5,063 less than OC, \$10,349 less than Police and \$13,757 less than FPS. Further, female spouses of FPS had the highest total income (\$38,874), followed by Police (\$35,366), OC (\$31,038), and CF (\$24,961). In other words, female spouses of CF had an average total income that was \$6,077 less than OC, \$10,405 less than Police and \$13,913 less than FPS.

Table 11: Average 2005 Income of Female Spouses by Group²³

Type of Income	CF	Police	FPS	OC
Employment Income	\$21,967	\$32,316	\$35,724	\$27,030
Other income	\$2,996	\$3,058	\$3,153	\$4,007
Total Income	\$24,961 (\$251)	\$35,366 (\$440)	\$38,874 (\$211)	\$31,038 (\$37)

Lastly, Table 12 displays the regional distribution of average female spousal employment income by group. It demonstrates (in all regions), that the average employment income for female spouses of CF is lowest compared to the average employment incomes of the three other comparable groups. As well, it also illustrates that the region with the highest

²² The income category “less than \$5,000” also includes those individuals who made negative income (e.g., a self-employed person who ended the year with a loss).

²³ The amount in the brackets of each cell represents the standard error.

average employment income for female spouses of CF is Ontario (\$23,460), followed by British Columbia (\$22,450), Prairies & Territories (\$22,300), Quebec (\$21,821), and Atlantic (\$19,722).

Table 12: Average Employment Income of Female Spouses by Region.

Region	CF	Police	FPS	OC
Atlantic	\$19,722	\$27,119	\$28,726	\$22,633
Quebec	\$21,821	\$31,289	\$36,012	\$25,068
Ontario	\$23,460	\$36,425	\$39,552	\$29,617
Prairies & Territories	\$22,300	\$29,905	\$33,779	\$27,085
British Columbia	\$22,450	\$31,636	\$31,652	\$25,144

3.11.1 Fewer Female Spouses of Canadian Forces NCMs have high Income Compared to those of Canadian Forces Officers

Figure 20 demonstrates that female spouses of CF NCMs have lower percentages in the “\$60,000 or more” category (5.1%) than female spouses of CF Officers (10.5%).

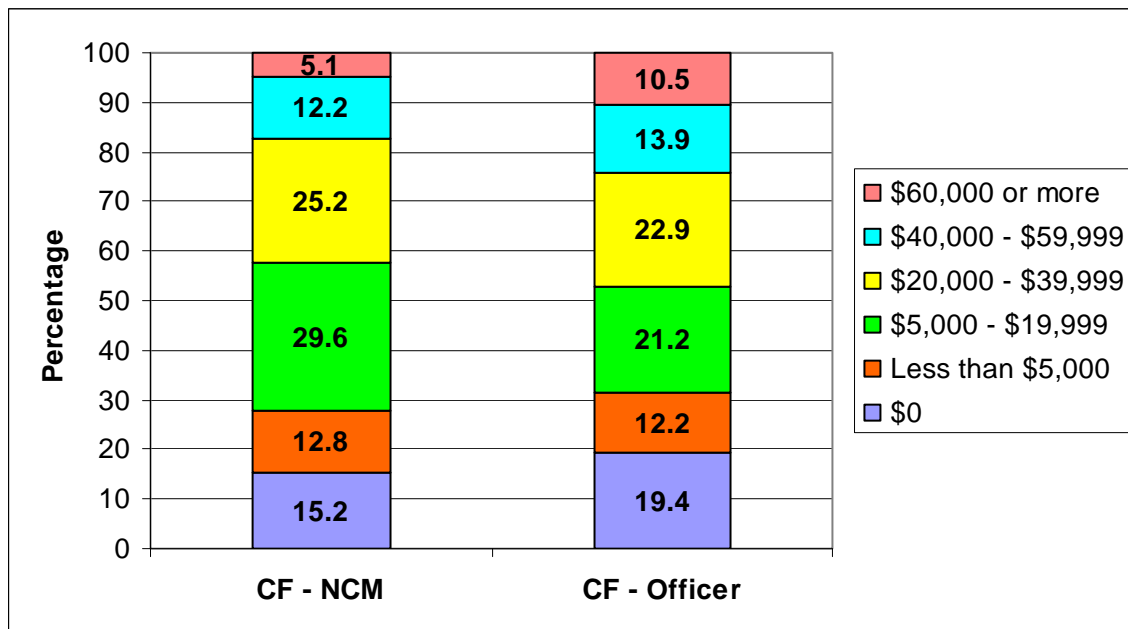


Figure 20: Employment Income of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

In addition, Table 13 shows that female spouses of CF NCMs had a lower average employment income (\$20,825) compared to female spouses of CF Officers (\$24,639). Thus, female spouses of CF NCMs had an average employment income that was \$3,814 less than female spouses of CF Officers. Further, female spouses of CF NCMs had a lower average total income (\$23,861)

compared to female spouses of CF Officers (\$27,530). In other words, female spouses of CF NCMs had an average total income that was \$3,669 less than female spouses of CF Officers.

Table 13: Average 2005 Income of Female Spouses by Canadian Forces NCM and Canadian Forces Officer

Type of Income	CF – NCM	CF – Officer
Employment Income	\$20,825	\$24,639
Other Income	\$3,036	\$2,902
Total Income	\$23,861 (\$272)	\$27,530 (\$545)

3.12 Summary of Findings: Comparing Female Spouses across the Four Groups

In summary, when comparing the female spouses of CF, Police, FPS and OC, female spouses of CF personnel have:

- a. less university level education²⁴;
- b. similar school attendance;
- c. little difference in the presence of young children at home;
- d. lower employment and total income;
- e. similar knowledge of their province's OL; and
- f. similar types of employment by industry.

In addition, female spouses of CF personnel are:

- a. youngest;
- b. less likely to be visible minorities;
- c. less likely to be employed;
- d. more likely to live in Atlantic Canada;
- e. more likely to report English as their FOL²⁵; and

²⁴ This was found when comparing female spouses of CF to female spouses of Police and FPS, but not when comparing female spouses of CF to female spouses of OC.

- f. more likely to move provincially.

3.12.1 Summary of Findings: Comparing Female Spouses of Canadian Forces NCMs and Canadian Forces Officers

In summary, when comparing the female spouses of CF NCMs and CF Officers, female spouses of CF NCMs have:

- a. less university level education;
- b. similar school attendance;
- c. little difference in the presence of young children at home;
- d. similar knowledge of their province's OL;
- e. similar types of employment by industry; and
- f. lower employment and total income.

In addition, female spouses of CF NCMs are:

- a. younger;
- b. more likely to self-report as Aboriginal;
- c. more likely to report French as their FOL;
- d. more likely to live in Quebec;
- e. less likely to move provincially; and
- f. more likely to be employed.

²⁵ This was found when comparing female spouses of CF to female spouses of Police and FPS, but not when comparing female spouses of CF to female spouses of OC.

4 Modeling Results

4.1 Logistic Regression Modeling of Employment Status

The data discussed in Section 3 showed that when comparing the female spouses of CF with the female spouses of the three other comparable groups (Police, FPS and OC), the female spouses of CF have different socio-demographic characteristics as well as different employment statuses/incomes. Further analyses have been conducted to explore whether these socio-demographic characteristics could explain the differences in employment statuses among the various female spousal groups. Specifically, logistic regression modeling exercises were conducted to compare:

- a. the female spouses of CF NCMs, CF Officers and Police; and
- b. the female spouses of CF NCMs, CF Officers and FPS.

For further discussion concerning the logistic regression modeling, please see Annex C.

4.2 Female Spousal Group Comparisons

Table 14 and Table 15 examine the probabilities²⁶ of various employment statuses for the different female spousal groups. As shown in Table 14, if all of the female spouses of CF NCMs, CF Officers, and Police kept all of their socio-demographic characteristics but hypothetically became the spouses of CF Officers, the probability that they would be “not in the labour force” (0.300, *Standard Error (SE)* = 0.010) was higher than if they had hypothetically become the spouses of CF NCMs (0.240, *SE* = 0.010) or Police (0.220, *SE* = 0.010). This indicates that the female spouses of CF Officers would be more likely to be “not in the labour force” than the female spouses of CF NCMs and Police.

Similarly, Table 14 also demonstrates that if all of the female spouses hypothetically became the spouses of CF NCMs, they would be more likely to be “not in the labour force” than the female spouses of Police. The same trends can be found when comparing the female spouses of CF NCMs, CF Officers, and Police by using “unemployed” and “working <²⁷ 30 hours” as indicators of employment status. Table 15 demonstrates similar trends when comparing the spouses of CF NCMs, CF Officers and FPS.

²⁶ The probabilities used are the average predicted probabilities (also referred to as predictive margins). For further discussion on average predicted probabilities, please see Annex C.

²⁷ “<” means “less than”.

Table 14: Probabilities of Employment Status for Various Spousal Groups Including Canadian Forces NCM, Canadian Forces Officer and Police

Group Membership	Indicators of Employment Status					
	Not in the Labour Force		Unemployed		Working < 30 hours	
	Probability	SE	Probability	SE	Probability	SE
CF NCM	0.240	0.010	0.060	0.000	0.205	0.008
CF Officer	0.300	0.010	0.080	0.010	0.252	0.013
Police	0.220	0.010	0.050	0.000	0.195	0.008

Table 15: Probabilities of Employment Status for Various Spousal Groups Including Canadian Forces NCM, Canadian Forces Officer and FPS

Group Membership	Indicators of Employment Status					
	Not in the Labour Force		Unemployed		Working < 30 hours	
	Probability	SE	Probability	SE	Probability	SE
CF NCM	0.240	0.010	0.060	0.000	0.192	0.009
CF Officer	0.250	0.010	0.060	0.010	0.225	0.014
FPS	0.200	0.010	0.050	0.000	0.162	0.003

The results of both tables demonstrate the impact of group membership on female spousal employment status:

- a. the female spouses of CF were more likely to be “not in the labour force”, “unemployed”, and “working < 30 hours” than the female spouses of Police and FPS; and
- b. the female spouses of CF Officers were more likely to be “not in the labour force” and “working < 30 hours” than the female spouses of CF NCMs.

4.3 Impact of Key Socio-Demographic Characteristics

The results from logistic regression modeling demonstrate the impact of some key socio-demographic characteristics on female spousal employment status.

4.3.1 Education

Table 16 and Table 17 examine the probabilities of various employment statuses for different education levels. As shown in Table 16, if all of the female spouses of CF NCMs, CF Officers and Police kept all of their socio-demographic characteristics but hypothetically had a “less than high school completion” education level, the probability that they would be “not in the labour force” would be 0.474 ($SE = 0.021$). This probability indicates that without high school completion, the female spouses were more likely to be “not in the labour force”.

On the other hand, if all of the female spouses hypothetically had a “more than Bachelor’s degree” level of education, the probability that they would be “not in the labour force” would be 0.140 ($SE = 0.013$). This probability is lower than the probabilities for the female spouses who hypothetically did not have a “more than Bachelor’s degree” level of education, indicating that these female spouses were less likely to be “not in the labour force”. A similar trend can be found when comparing female spouses of CF NCMs, CF Officers, and Police by using “working < 30 hours” as an indicator of employment status.

When using “unemployed” as the indicator of employment status, trends varied. For instance, the female spouses who hypothetically had a “high school completion” level of education had the lowest probability of being “unemployed” at 0.041 ($SE = 0.005$). Table 17 demonstrates similar trends when comparing the spouses of CF NCMs, CF Officers and FPS.

Table 16: Probabilities of Employment Status at Various Education Levels Comparing Female Spouses of Canadian Forces NCMs, Canadian Forces Officers and Police

Highest Level of Education	Indicators of Employment Status					
	Not in the Labour Force		Unemployed		Working < 30 hours	
	Probability	SE	Probability	SE	Probability	SE
Less than high school completion	0.474	0.021	0.117	0.019	0.291	0.020
High school completion	0.288	0.009	0.041	0.005	0.229	0.011
Some or all college	0.227	0.006	0.057	0.004	0.226	0.008
Bachelor’s degree	0.179	0.009	0.057 ²⁸	0.005	0.149	0.008
More than Bachelor’s degree	0.140	0.013				

Table 17: Probabilities of Employment Status at Various Education Levels Comparing Female Spouses of Canadian Forces NCMs, Canadian Forces Officers and FPS

Highest Level of Education	Indicators of Employment Status					
	Not in the Labour Force		Unemployed		Working < 30 hours	
	Probability	SE	Probability	SE	Probability	SE
Less than high school completion	0.442	0.015	0.106	0.012	0.296	0.020
High school completion	0.278	0.007	0.060	0.004	0.199	0.007
Some or all college	0.209	0.004	0.054	0.003	0.185	0.005
Bachelor’s degree	0.155	0.005	0.041	0.003	0.148	0.006
More than Bachelor’s degree	0.116	0.008	0.030	0.004	0.117	0.007

The results of both tables demonstrate the impact of education level on female spousal employment status:

²⁸ Due to small sample sizes, cells in certain tables have been merged together.

- a. the less education the female spouses had, the more likely they were to be “not in the labour force”, “unemployed”, and “working < 30 hours”.

4.3.2 Young Children at Home

Table 18 and Table 19 examine the probabilities of various employment statuses based on the presence of young children at home. As shown in Table 18, if all of the female spouses of CF NCMs, CF Officers and Police kept all of their socio-demographic characteristics but hypothetically had the presence of at least one young child at home, the probability that they would be “not in the labour force” would be 0.384 ($SE = 0.010$). This probability is much higher than the probability for the female spouses who hypothetically had no young child at home, indicating that these female spouses were more likely to be “not in the labour force”. The same trend can be found when using “unemployed” and “working < 30 hours” as indicators of employment status. Table 19 demonstrates similar trends when comparing the spouses of CF NCMs, CF Officers and FPS.

Table 18: Probabilities of Employment Status Based on the Presence of young children at Home Comparing Female Spouses of Canadian Forces NCMs, Canadian Forces Officers and Police

Presence of Young Children at Home	Indicators of Employment Status					
	Not in the Labour Force		Unemployed		Working < 30 Hrs	
	Probability	SE	Probability	SE	Probability	SE
No Young Child at Home	0.189	0.005	0.047	0.003	0.185	0.005
Young Child at Home	0.384	0.010	0.085	0.007	0.302	0.013

Table 19: Probabilities of Employment Status Based on the Presence of young children at home Comparing Female Spouses of Canadian Forces NCMs, Canadian Forces Officers and FPS

Presence of Young Children at Home	Indicators of Employment Status					
	Not in the Labour Force		Unemployed		Working < 30 Hrs	
	Probability	SE	Probability	SE	Probability	SE
No Young Child at Home	0.174	0.003	0.041	0.002	0.157	0.003
Young Child at Home	0.329	0.007	0.075	0.004	0.259	0.008

The results of both tables demonstrate the impact of the presence of young children at home on female spousal employment status:

- a. the female spouses were more likely to be “not in the labour force”, “unemployed”, and “working < 30 hours” with the presence of young children at home.

4.3.3 Five-Year Mobility

Table 20 and Table 21 examine the probabilities of various employment statuses for the different degrees of mobility five years before the 2006 long-form Census. As shown in Table 20, if all of the female spouses of CF NCMs, CF Officers and Police kept all of the socio-demographic characteristics but hypothetically had lived in a different province or outside Canada five years before the 2006 long-form Census, the probability that they would be “not in the labour force” would be 0.296 ($SE = 0.010$). This probability is higher than the probabilities for the female spouses who hypothetically had not lived in a different province or outside Canada five years before the 2006 long-form Census. This indicates that when the female spouses of CF NCMs, CF Officers and Police experienced a provincial or international move five years before the 2006 long-form Census, they were more likely to be “not in the labour force”.

Similarly, Table 20 also demonstrates that if all female spouses hypothetically had lived in the “same dwelling or same CSD; different dwelling” five years before the 2006 long-form Census, the probability that they would be “not in the labour force” would be 0.207 ($SE = 0.006$). This probability is lower than the probabilities for the female spouses who hypothetically had other degrees of five-year mobility, indicating that these female spouses were less likely to be “not in the labour force”. The same trend can be found when comparing female spouses of CF NCMs, CF Officers and Police by using “unemployed” and “working < 30 hours” as indicators of employment status. Table 21 demonstrates similar trends when comparing the spouses of CF NCMs, CF Officers and FPS.

Table 20: Probabilities of Employment Status Based on Five-Year Mobility Comparing Female Spouses of Canadian Forces NCMs, Canadian Forces Officers, and Police

Five-Year Mobility	Indicators of Employment Status					
	Not in the Labour Force		Unemployed		Working < 30 Hrs	
	Probability	SE	Probability	SE	Probability	SE
Same dwelling or Same CSD; different dwelling	0.207	0.006	0.041	0.003	0.189	0.007
Different CSD; same province	0.251	0.009	0.062	0.006	0.231	0.011
Different Province or Outside Canada	0.296	0.010	0.075	0.006	0.241	0.012

Table 21: Probabilities of Employment Status Based on Five-Year Mobility Comparing Female Spouses of Canadian Forces NCMs, Canadian Forces Officers and FPS.

Five-Year Mobility	Indicators of Employment Status					
	Not in the Labour Force		Unemployed		Working < 30 Hrs	
	Probability	SE	Probability	SE	Probability	SE
Same dwelling	0.190	0.004	0.040	0.002	0.168	0.004
Same CSD; different dwelling	0.179	0.006				
Different CSD; same province	0.218	0.008	0.062	0.005	0.170	0.008
Different Province	0.246	0.009	0.067	0.005	0.204	0.009
Outside Canada	0.433	0.020				

The results of both tables demonstrate the impact of five-year mobility on female spousal employment status:

- a. when female spouses experienced a provincial or international move, they were more likely to be “not in the labour force”, “unemployed”, and “working < 30 hours”.

4.3.4 Age

Table 22 and Table 23 examine the probabilities of various employment statuses at different age bands. As shown in Table 22, if all of the female spouses of CF NCMs, CF Officers and Police kept all of their socio-demographic characteristics but hypothetically became 45 or older, the probability that they would be “not in the labour force” would be 0.331 ($SE = 0.010$). This probability is higher than the probabilities for the female spouses who hypothetically were younger than 45, which indicates that female spouses who were 45 or older were more likely to be “not in the labour force”.

Similarly, Table 22 also demonstrates that if all female spouses hypothetically became between 25-34 years of age, the probability that they would be “not in the labour force” would be 0.197 ($SE = 0.007$). This probability is much lower than the probabilities for female spouses hypothetically in other age bands, which indicates that the female spouses who were between 25-34 years old were less likely to be “not in the labour force”. The same trend can be found when comparing the female spouses of CF NCMs, CF Officers and Police by using “working < 30 hours” as the indicator of employment status.

Further, Table 22 reveals that if all female spouses hypothetically became 24 or younger, the probability that they would be “unemployed” would be 0.106 ($SE = 0.016$). This probability is higher than the probabilities for the female spouses who hypothetically were older than 24, indicating that these female spouses were more likely to be “unemployed”. Table 23 demonstrates similar trends when comparing the spouses of CF NCMs, CF Officers and FPS.

Table 22: Probabilities of Employment Status Based on Age Comparing Female Spouses of Canadian Forces NCMs, Canadian Forces Officers, and Police

Age	Indicators of Employment Status					
	Not in the Labour Force		Unemployed		Working < 30 Hrs	
	Probability	SE	Probability	SE	Probability	SE
24 or younger	0.225	0.015	0.106	0.016	0.199	0.022
25-34	0.197	0.007	0.049	0.004	0.183	0.009
35-44	0.228	0.007	0.049	0.004	0.211	0.008
45 or older	0.331	0.010	0.065	0.007	0.242	0.011

Table 23: Probabilities of Employment Status Based on Age Comparing Female Spouses of Canadian Forces NCMs, Canadian Forces Officers, and FPS

Age	Indicators of Employment Status					
	Not in the Labour Force		Unemployed		Working < 30 Hrs	
	Probability	SE	Probability	SE	Probability	SE
24 or younger	0.223	0.020	0.075	0.008	0.176	0.015
25-34	0.175	0.005	0.048	0.003	0.146	0.005
35-44	0.190	0.004	0.045	0.002	0.173	0.005
45 or older	0.268	0.006	0.050	0.003	0.203	0.006

The results of both tables demonstrate the impact of age on female spousal employment status:

- a. the female spouses who were “45 or older” were more likely to be “not in the labour force” and “working < 30 hours”;
- b. the female spouses who were “25-34” were less likely to be “not in the labour force” and “working < 30 hours”; and
- c. the female spouses who were “24 or younger” were more likely to be “unemployed”.

4.3.5 Region

Table 24 and Table 25 examine the probabilities of various employment statuses for different regions. As shown in Table 24, if all of the female spouses of CF NCMs, CF Officers and Police kept all of their socio-demographic characteristics but hypothetically lived in the Territories, the probability that they would be “not in the labour force” would be 0.123 ($SE = 0.028$). This probability is lower than the probabilities for the female spouses who hypothetically lived in other regions, which indicates that female spouses who lived in the Territories were less likely to be “not in the labour force”.

Similarly, Table 24 also demonstrates that if all of the female spouses hypothetically lived in the Prairies, the probability that they would be “unemployed” would be 0.028 ($SE = 0.004$). This probability is lower than the probabilities for the female spouses who hypothetically lived in other regions, which indicates that these female spouses were less likely to be “unemployed”.

Further, Table 24 reveals that if all of the female spouses hypothetically lived in the Prairies or Territories, the probability that they would be “working < 30 hours” would be 0.186 ($SE = 0.011$). This probability is lower than the probabilities for the female spouses who hypothetically lived in other regions, indicating that these female spouses were less likely to be “working < 30 hours”. Table 25 shows similar trends when comparing the spouses of CF NCMs, CF Officers and FPS.

Table 24: Probabilities of Employment Status at Various Regions Comparing Female Spouses of Canadian Forces NCMs, Canadian Forces Officers, and Police

Region	Indicators of Employment Status					
	Not in the Labour Force		Unemployed		Working < 30 hours	
	Probability	SE	Probability	SE	Probability	SE
Atlantic	0.264	0.012	0.079	0.009	0.189	0.012
Quebec	0.266	0.014	0.070	0.011	0.247	0.019
Ontario	0.245	0.008	0.064	0.005	0.200	0.009
British Columbia	0.236	0.012	0.045	0.006	0.251	0.015
Prairies	0.197	0.010	0.028	0.004	0.186	0.011
Territories	0.123	0.028	0.051	0.022		

Table 25: Probabilities of Employment Status at Various Regions Comparing Female Spouses of Canadian Forces NCMs, Canadian Forces Officers and FPS

Region	Indicators of Employment Status					
	Not in the Labour Force		Unemployed		Working < 30 hours	
	Probability	SE	Probability	SE	Probability	SE
Atlantic	0.220	0.007	0.061	0.005	0.171	0.007
Quebec	0.222	0.008	0.048	0.005	0.182	0.009
Ontario	0.219	0.005	0.057	0.003	0.166	0.005
British Columbia	0.195	0.008	0.035	0.004	0.231	0.010
Prairies	0.169	0.006	0.030	0.003	0.161	0.007
Territories	0.151	0.027	0.044	0.015		

The results of both tables demonstrate the impact of region on female spousal employment status:

- a. the female spouses, who lived in the “Territories”, were less likely to be “not in the labour force”;
- b. the female spouses, who lived in the “Prairies”, were less likely to be “unemployed”; and
- c. the female spouses, who lived in the “Prairies” or “Territories”, were less likely to be “working < 30 hours”.

4.4 Linear Regression Modeling of Employment Income

To explore the relationships between employment income and socio-demographic characteristics among the female spouses of CF NCMs, CF Officers, Police and FPS, a linear regression analysis was carried out by controlling for key factors such as “the number of weeks worked” and the “work status of full-time/part-time”²⁹. Based on the linear regression model, employment incomes were plotted. Figure 21 shows that:

- a. 80% of the female spouses of CF NCMs would make less than approximately \$30,000;
- b. 80% of the female spouses of CF Officers would make less than approximately \$37,500;
- c. 80% of the female spouses of Police would make less than approximately \$45,000; and
- d. 80% of the female spouses of FPS would make less than approximately \$50,000.

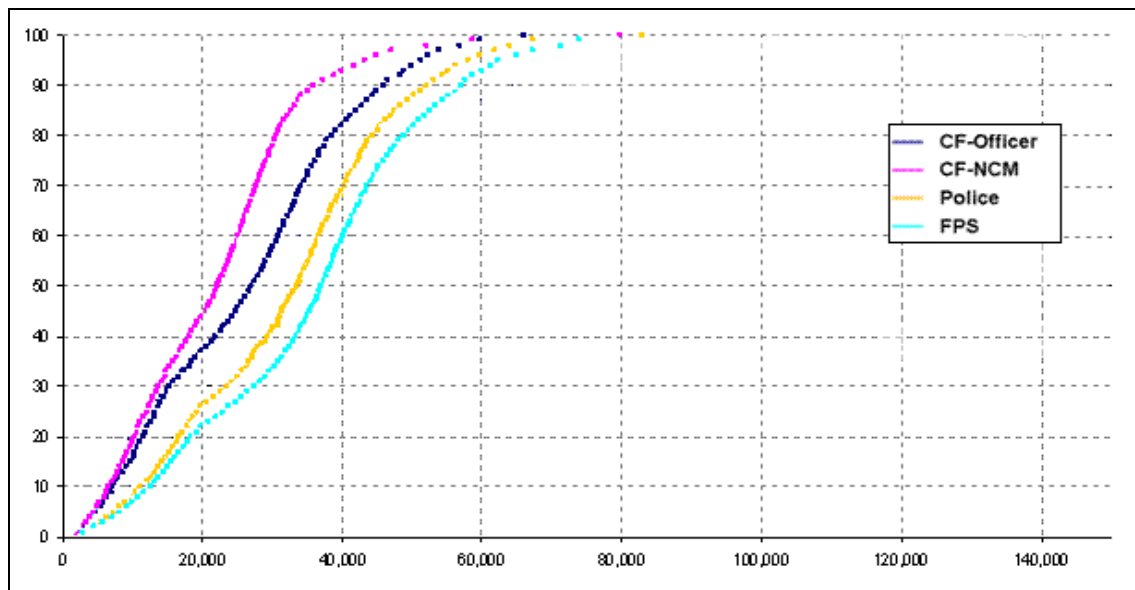


Figure 21: Distribution of Employment Incomes of the Female Spouses by Group

²⁹ Due to statistical concerns, the dependent variable was determined to be $\log(\text{Employment Income})$; and “the number of weeks worked” was determined to be $\log(\text{weeks worked})$. It should be noted that the female spouses with extreme high and low employment income (less than \$500 or higher than \$150,000) and the female spouses who worked less than one week were excluded. Therefore, income quantities predicted from the model need to be interpreted with caution. Further, socio-demographic characteristics considered for the linear regression models (e.g., age, education) were examined and included/excluded using a similar process carried out for the logistic regression modeling exercise (see Annex C). A summary of the variables, coefficients of the variables and two-way interactions in the linear regression model can be found in Annex D.

Furthermore, Figure 21 also shows that:

- a. approximately 94% of the female spouses of CF NCMs have employment incomes that are less than \$40,000;
- b. approximately 82% of the female spouses of CF Officers have employment incomes that are less than \$40,000;
- c. approximately 70% of the female spouses of Police have employment incomes that are less than \$40,000; and
- d. approximately 60% of the female spouses of FPS have employment incomes that are less than \$40,000.

Table 26 demonstrates the average incomes that were calculated based on the linear regression model, if all of the female spouses of a group (e.g., CF NCMs, CF Officers, Police, and FPS) hypothetically changed their group membership to another group. For example, if all of the female spouses of CF NCMs kept all of their socio-demographic characteristics but hypothetically became the spouses of CF Officers, their average income would increase from \$21,877 to \$24,059. In addition, if all of the female spouses of CF NCMs hypothetically became the spouses of Police or FPS, their average income would increase to \$28,606 and \$26,326, respectively. Similar trends can be found if all of the female spouses of CF Officers hypothetically became the spouses of Police or FPS. These trends demonstrate the impact of group membership on female spousal employment income:

- a. the female spouses of CF personnel were more likely to have a lower employment income than the female spouses of Police or FPS; and
- b. the female spouses of CF NCMs were more likely to have a lower employment income than the female spouses of CF Officers.

Table 26: Average Incomes of the Female Spouses if They Changed Group Membership

Actual Group	Hypothesized Group			
	CF NCM	CF Officer	Police	FPS
CF NCM	\$21,877	\$24,059	\$28,606	\$26,362
CF Officer	\$24,539	\$25,982	\$30,783	\$29,327
Police	\$25,557	\$28,245	\$32,411	\$31,095
FPS	\$29,085	\$31,161	\$36,350	\$35,627

4.5 Summary of Findings: Logistic Regression Modeling of Employment Status and Linear Regression Modeling of Employment Income

In summary, when analyzing the results of logistic regression modeling for employment status, the findings indicate that:

- a. the female spouses of CF were more likely to be “not in the labour force”, “unemployed”, and “working < 30 hours” than the female spouses of Police and FPS;
- b. the less education the female spouses had, the more likely they were to be “not in the labour force”, “unemployed”, and “working < 30 hours”;
- c. with the presence of young children at home, the female spouses were more likely to be “not in the labour force”, “unemployed”, and “working < 30 hours”;
- d. when the female spouses experienced a provincial or international move, they were more likely to be “not in the labour force”, “unemployed”, and “working < 30 hours”;
- e. the female spouses who were “45 or older” were more likely to be “not in the labour force” and “working < 30 hours”;
- f. the female spouses who were “24 or younger” were more likely to be “unemployed”; and
- g. the female spouses, who lived in the Prairies or Territories, were less likely to be “working < 30 hours”.

Lastly, when examining the results of linear regression modeling of employment income, findings indicate that:

- a. the female spouses of CF personnel were more likely to have a lower employment income than the female spouses of Police or FPS; and
- b. the female spouses of CF NCMs were more likely to have a lower employment income than the female spouses of CF Officers.

5 Discussion and Recommendations

5.1 Discussion

The aim of this report was to address one of two key research questions for the SPEI project, namely, “What is the employment status and income of CF spouses vis-à-vis comparable groups?” While the findings in this report are of a preliminary nature, they are very informative.

First, it was found that group membership has an impact on female spousal employment status and income. Of importance for the CF, is the finding that being a female spouse of a CF member (whether NCM or Officer) results in lower employment income and lower labour force participation in relation to the other comparison groups. In terms of labour force participation, it was found that female spouses of CF members are less likely to be employed compared to female spouses of Police, FPS and OC. Additionally, female spouses of CF Officers are less likely to be employed compared to female spouses of CF NCMs. When examining employment income, it was found that CF spouses earn \$5,063 less than OC, \$10,349 less than Police and \$13,757 less than FPS spouses. Furthermore, when comparing female spouses of CF Officers and CF NCMs, female spouses of CF NCMs earn \$3,814 less than female spouses of CF Officers.

Secondly, this research allows for the identification of key socio-demographic variables for further data analysis in Phase Three of the SPEI project. Specifically, it was found that variables such as education, the presence of young children at home, five-year mobility, age and region do play a role when examining employment status and income.

As interesting as some of these findings are, they raise further research questions that will need to be explored in Phase Three of this project. For example, while it was found that the female spouses of CF Officers (in general) have higher levels of education, they are less likely to be in the labour force. Is this the result of CF Officers having higher salaries? Are these spouses choosing not to work? The objective of Phase Three is to attempt to deepen our understanding of how aspects of military life impact the employment status and income of CF spouses.

5.2 Recommendations

While it is premature to make firm conclusions or policy/program recommendations at this time, the results from Phase Two of the SPEI project indicate that spouses of CF personnel are at a disadvantage in terms of labour force participation and employment income. Based on the findings in this report, it is recommended that research be conducted into:

- a. education and labour force participation in order to understand different reasons for individuals not working;
- b. mobility and the associated complications to gain employment such as re-certification, loss of seniority etc;
- c. impact of geographical location of CF bases and employment opportunities;

- d. impact of foreign postings on employment income; and
- e. impact of having young children at home and employment prospects.

5.3 Way Ahead

This report represents the completion of Phase Two of the SPEI project. In the third and final phase of the SPEI project, analysis of data collected from two surveys administered in December 2008 will take place. Specifically, the Fall 2008 *Your-Say Regular Forces Survey* will provide data obtained from CF Regular Force personnel about the employment status, experiences and income of their spouses, while the 2008 *Quality of Life Among Military Families: A Survey of Spouses/Partners of CF Members* will provide data obtained from spouses of CF personnel about their own employment status, experiences and income. Along with the data presented in this report, these two additional data sources will help investigate the second key research question of the SPEI project, namely, “What are the employment experiences of CF spouses?” as well as some of the questions raised in the previous section of this report. It is expected that the results from this work will be available in March 2011.

6 References

- [1] Coulthard, J. & Dunn, J. (2009). *Canadian Forces Spousal/Partner Employment and Income Project: Research Framework and Methodology*. DGMPRA TM 2009-012. Director General Military Personnel Research and Analysis, Ottawa, Ontario, Canada.
- [2] Graubard, B.I. & Korn, E.L. (1999). Predictive Margins with Survey Data. *Biometrics*, 55, 652-659.
- [3] Healey, J. (1999). *Statistics: A Tool for Social Research Fifth Edition*. Wadsworth Publishing Company, Belmont, California.
- [4] Hosmer, D.W. & Lemeshow, S. (1989). *Applied Logistic Regression*. New York: John Wiley & Sons, Inc.
- [5] <http://www.12.statcan.gc.ca/census-recensement/2006/ref/question-guide/eng.cfm>

Annex A How do Male Spouses of Canadian Forces Personnel Compare to other Groups?

A.1 Age Distribution of Male Spouses

When examining the percentages in the age categories of the four groups, Figure 22 demonstrates that the male spouses of Police are the youngest group, followed by CF, OC and FPS. The male spouses of FPS appear to be the oldest group.

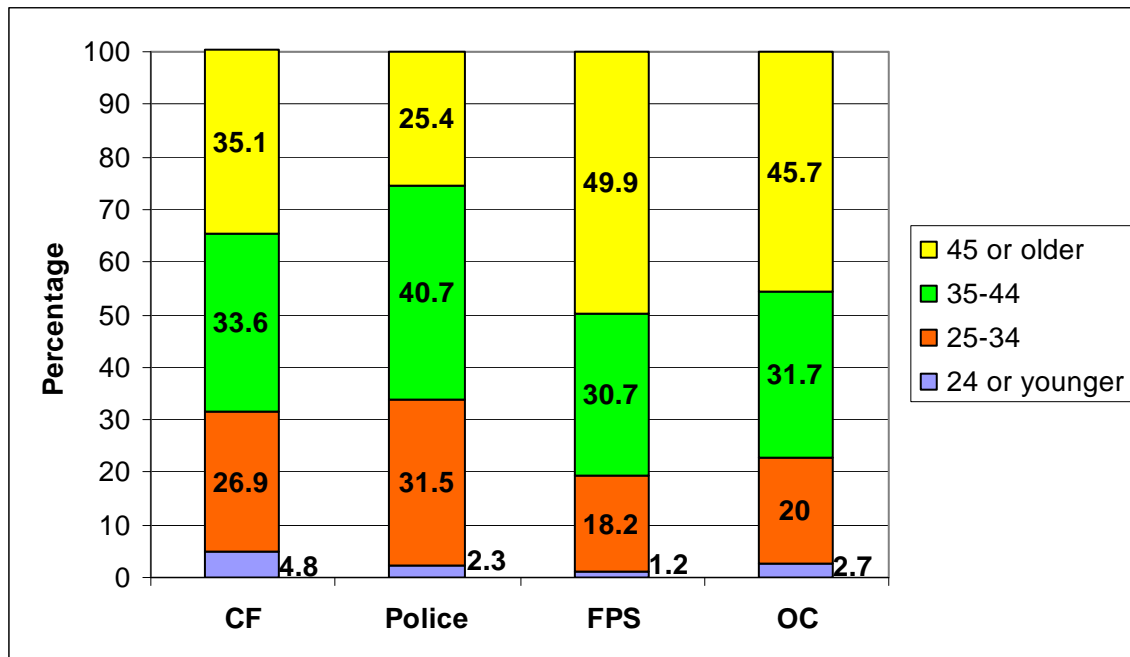


Figure 22: Age Distribution of Male Spouses by Group

As Table 27 reveals, these findings are also supported by the mean and median ages of male spouses by group such that male spouses of Police are youngest (39.2 and 38.3 respectively) while male spouses of FPS are oldest (44.0 and 44.0 respectively).

Table 27: Mean and Median Ages of Male Spouses by Group

Group	Mean	Median
CF	40.3	40.0
Police	39.2	38.3
FPS	44.0	44.0
OC	42.9	42.8

A.1.1 Age Distribution for Male Spouses of Canadian Forces NCMs and those of Canadian Forces Officers

As Figure 23 shows, the age distributions for male spouses of CF NCMs and CF Officers are similar. Specifically, male spouses of CF Officers have higher percentages in the “24 or younger” (5.5%) and “45 or older” (39.3%) age categories, while male spouses of CF NCMs have higher percentages in the “25-34” (27.7%) and “35-44” (34.6%) age categories.

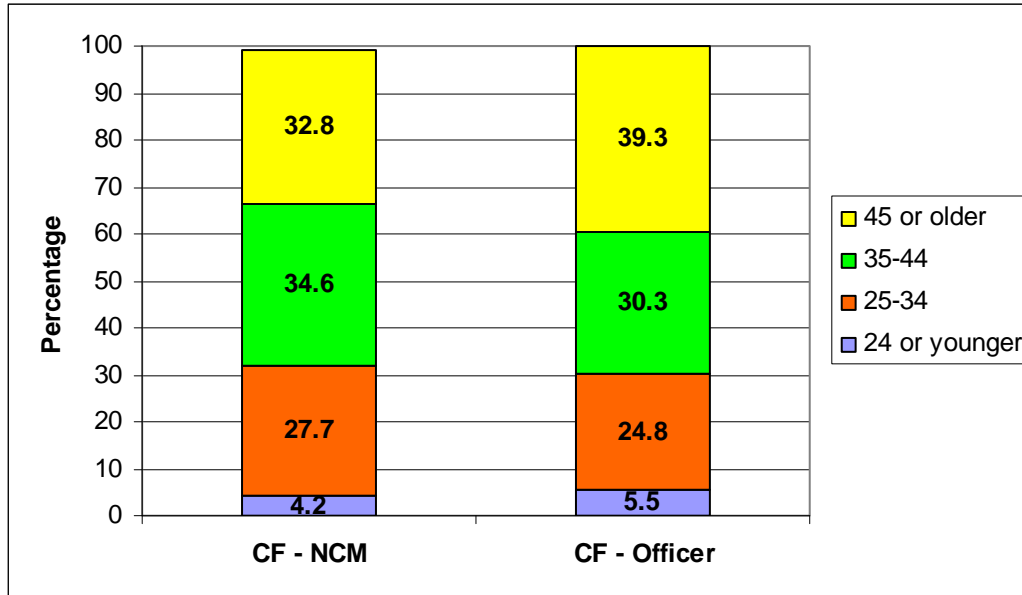


Figure 23: Age Distribution of Male Spouses by Canadian Forces NCM and Canadian Forces Officer

As Table 28 indicates, these findings are also supported by the similar mean and median ages for male spouses of CF NCMs and CF Officers.

Table 28: Mean and Median Ages of Male Spouses by Canadian Forces NCM and Canadian Forces Officer

Group	Mean	Median
CF – NCM	40.1	39.7
CF – Officer	40.8	40.4

A.2 Highest Level of Education for Male Spouses

As illustrated in Figure 24, male spouses of FPS have the highest combined percentages in the “bachelor’s degree” and “more than bachelor’s degree” categories (30.4%), followed by OC (23.5%), CF (22.7%), and Police (20.8%). In contrast, male spouses of OC have the highest combined percentages in the “less than high school completion” and “high school completion” categories (36.2%), followed by CF (35.7%), FPS (30%) and Police (24.5%).

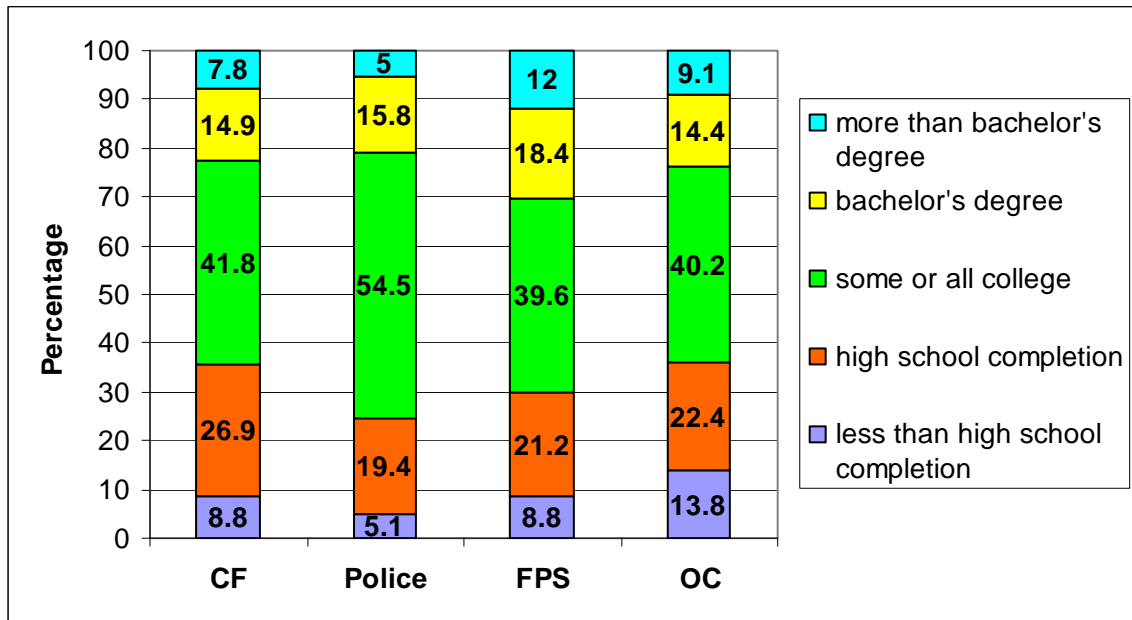


Figure 24: Highest Level of Education for Male Spouses by Group

A.2.1 Highest Level of Education for Male Spouses of Canadian Forces NCMs and those of Canadian Forces Officers

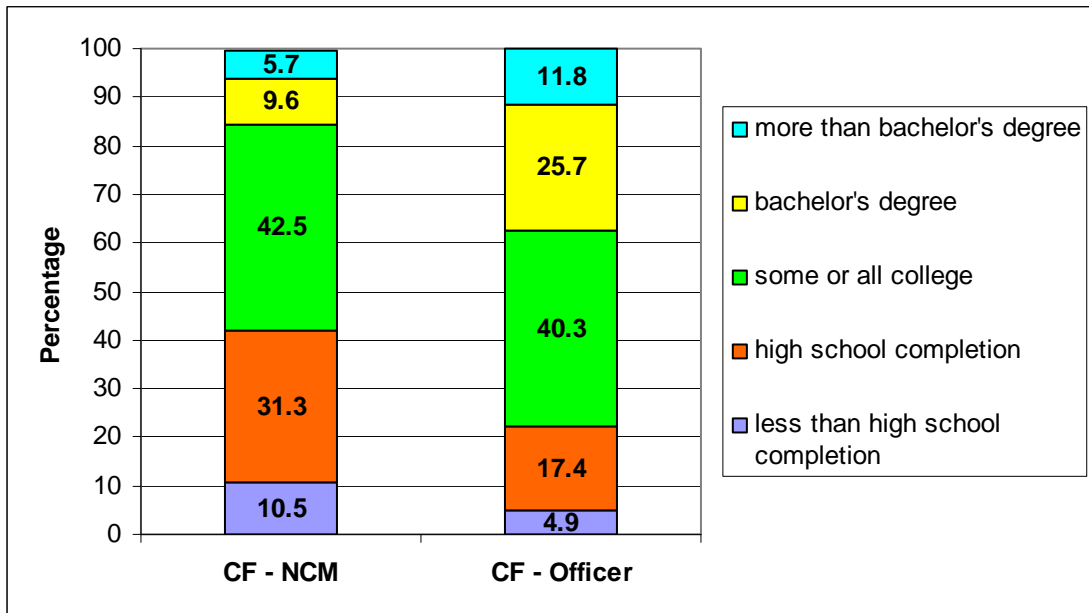


Figure 25: Highest Level of Education of Male Spouses by Canadian Forces NCM and Canadian Forces Officer

As displayed in Figure 25, fewer male spouses of CF NCMs have university level education than male spouses of CF Officers. Specifically, male spouses of CF Officers have higher combined percentages in the “bachelor’s degree” and “more than bachelor’s degree” categories (37.5%) than male spouses of CF NCMs (15.3%). Further, male spouses of CF NCMs have higher combined percentages in the “less than high school completion” and “high school completion” categories (41.8%) than male spouses of CF Officers (22.3%).

A.3 School Attendance of Male Spouses

Figure 26 demonstrates that 14.7% of male spouses of CF were attending school compared to only 11.5% of male spouses of Police, 8.2% of male spouses of OC, and 8% of male spouses of FPS.

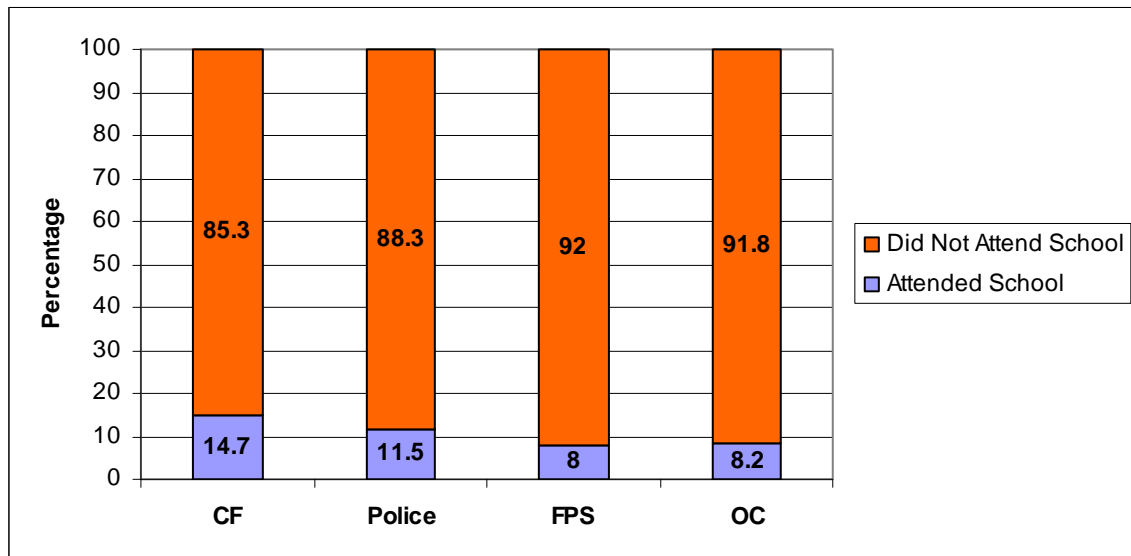


Figure 26: School Attendance of Male Spouses by Group

A.3.1 School Attendance for Male Spouses of Canadian Forces NCMs and those of Canadian Forces Officers

Figure 27 reveals that slightly more male spouses of CF Officers were attending school (15.9%) than male spouses of CF NCMs (14.2%).

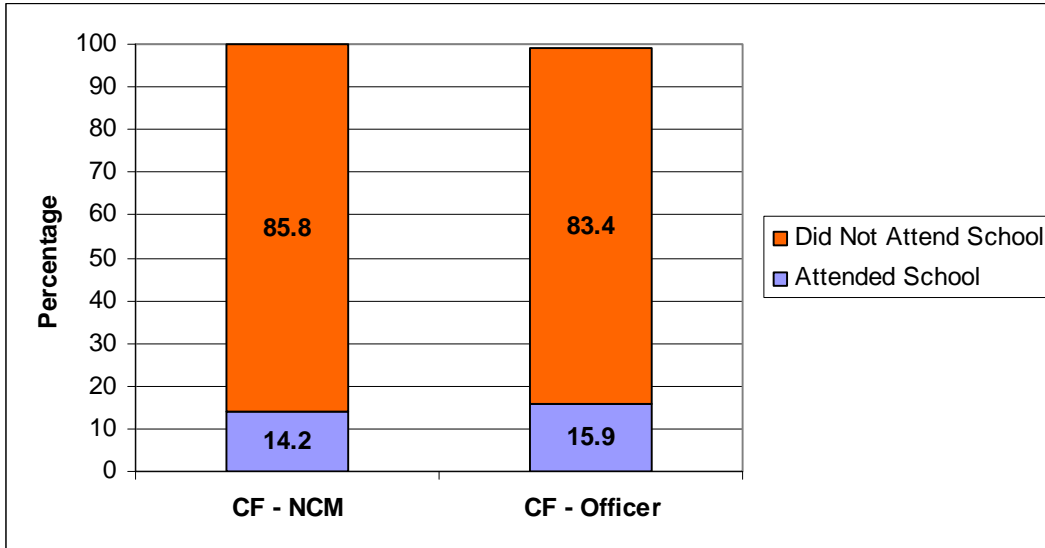


Figure 27: School Attendance of Male Spouses by Canadian Forces NCM and Canadian Forces Officer

A.4 Visible Minority and Aboriginal Status of Male Spouses

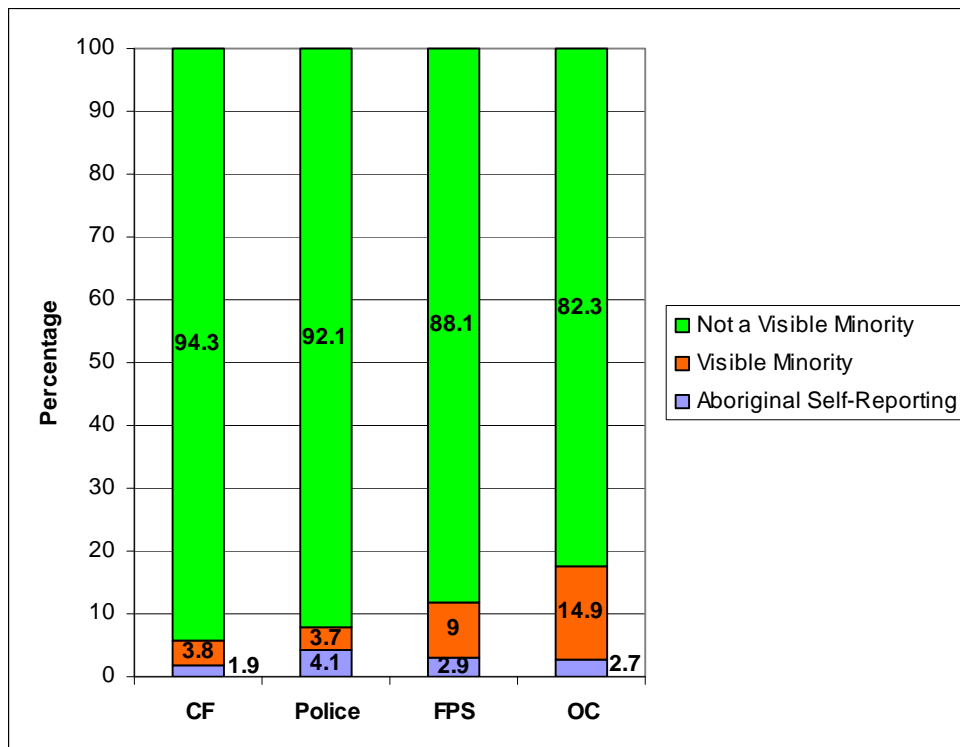


Figure 28: Visible Minority and Aboriginal Status of Male Spouses by Group

As Figure 28 shows, more male spouses of OC are a visible minority (14.9%) compared to male spouses of FPS (9%), CF (3.8%), and Police (3.7%). In addition, male spouses of Police have the highest percentage in the “Aboriginal Self-Reporting” category (4.1%), while male spouses of CF have the highest percentage in the “not a visible minority” category (94.3%).

A.4.1 Visible Minority and Aboriginal Status for Male Spouses of Canadian Forces NCMs and those of Canadian Forces Officers

As Figure 29 indicates, more male spouses of CF Officers (3.4%) self-report as Aboriginal compared to male spouses of CF NCMs (1.5%). In addition, approximately 94% of all male spouses are in the “not a visible minority” category.

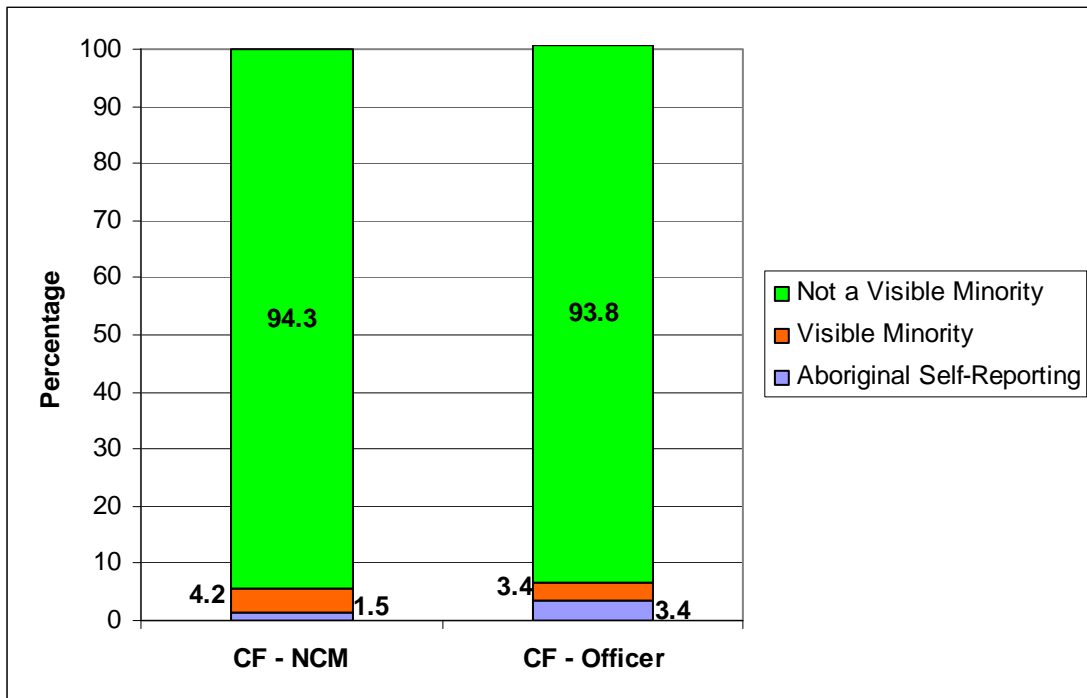


Figure 29: Visible Minority and Aboriginal Status of Male Spouses by Canadian Forces NCM and Canadian Forces Officer

A.5 Number of Children of Male Spouses

As Figure 30 illustrates, the largest group of male spouses with two or more children at home is OC (44.5%), followed by FPS (41.3%), Police (40.7%) and CF (36.9%). In other words, male spouses of CF have the fewest number of children at home compared to the other three groups.

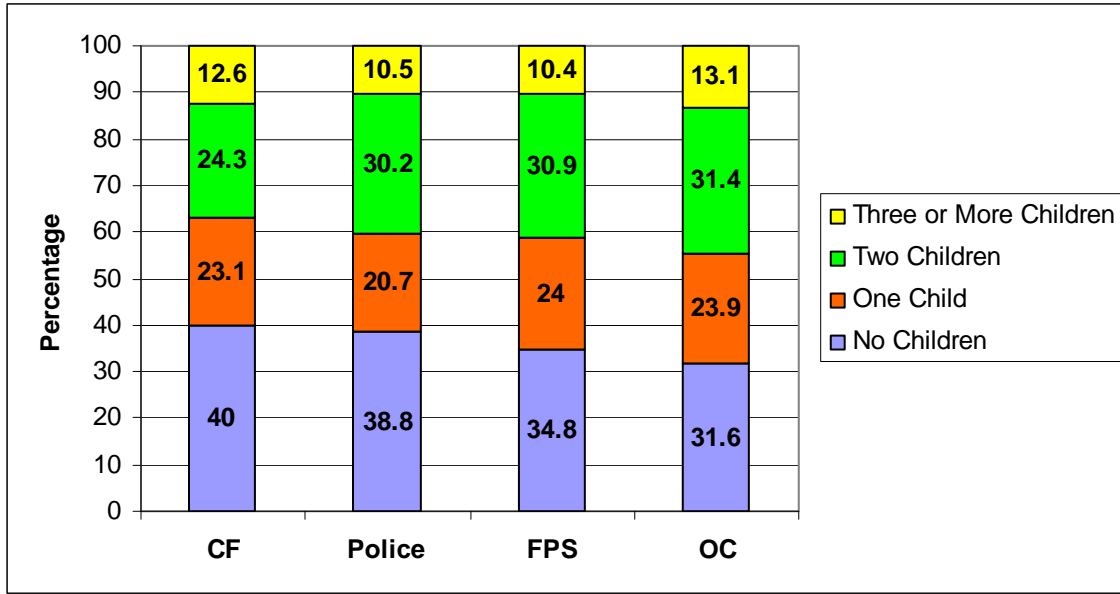


Figure 30: Number of Children of Male Spouses by Group

In addition, as Figure 31 displays, male spouses of Police have the highest percentage of the presence of at least one young child at home (31.1%), while male spouses of FPS have the lowest percentage (19.9%). In addition, male spouses of CF and OC have identical percentages of the presence of at least one young child at home (22.3%).

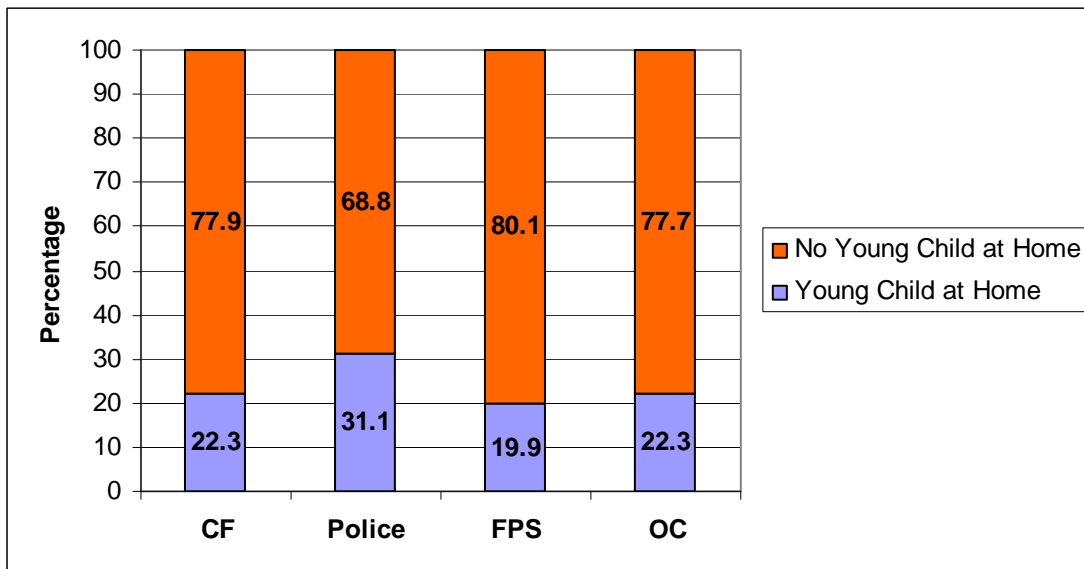


Figure 31: Presence of Young Child(ren) at the Home of Male Spouses by Group

A.5.1 Number of Children for Male Spouses of Canadian Forces NCMs and those of Canadian Forces Officers

As Figure 32 demonstrates, slightly more male spouses of CF Officers have two or more children (38.9%) than male spouses of CF NCMs (35.8%). Further, male spouses of CF NCMs have a higher percentage (40.7%) in the “no children” category than male spouses of CF Officers (38.9%).

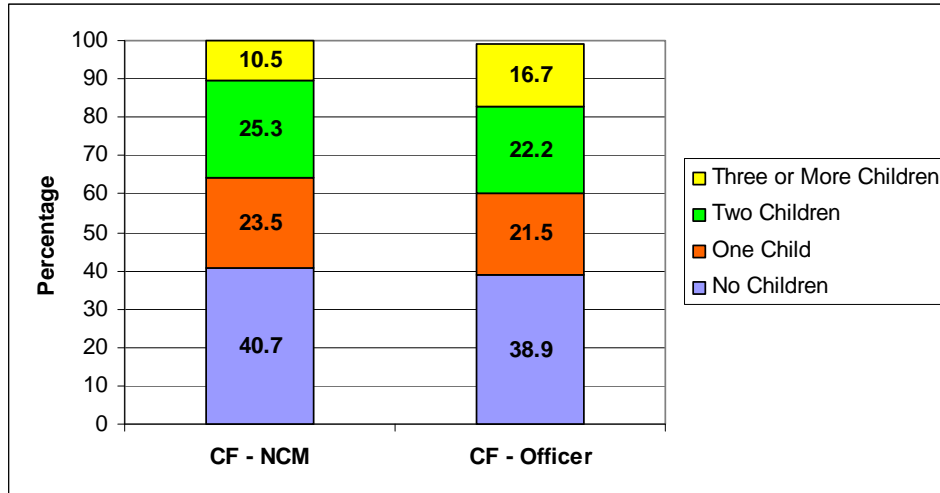


Figure 32: Number of Children of Male Spouses by Canadian Forces NCM and Canadian Forces Officer

Figure 33 reveals that more male spouses of CF Officers (29.2%) have at least one young child at home compared to male spouses of CF NCMs (19.3%).

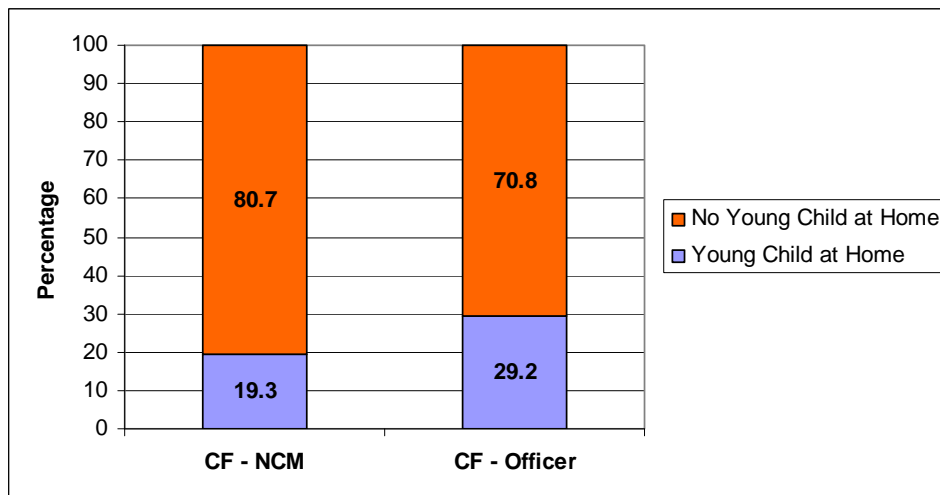


Figure 33: Presence of Young Child(ren) at the Home of Male Spouses by Canadian Forces NCM and Canadian Forces Officer

A.6 First Official Language of Male Spouses

As Figure 34 shows, with respect to FOL³⁰, a higher percentage of male spouses of FPS (31.8%) report French as their FOL compared to Police (28.5%), CF (24.7%) and OC (23.1%).

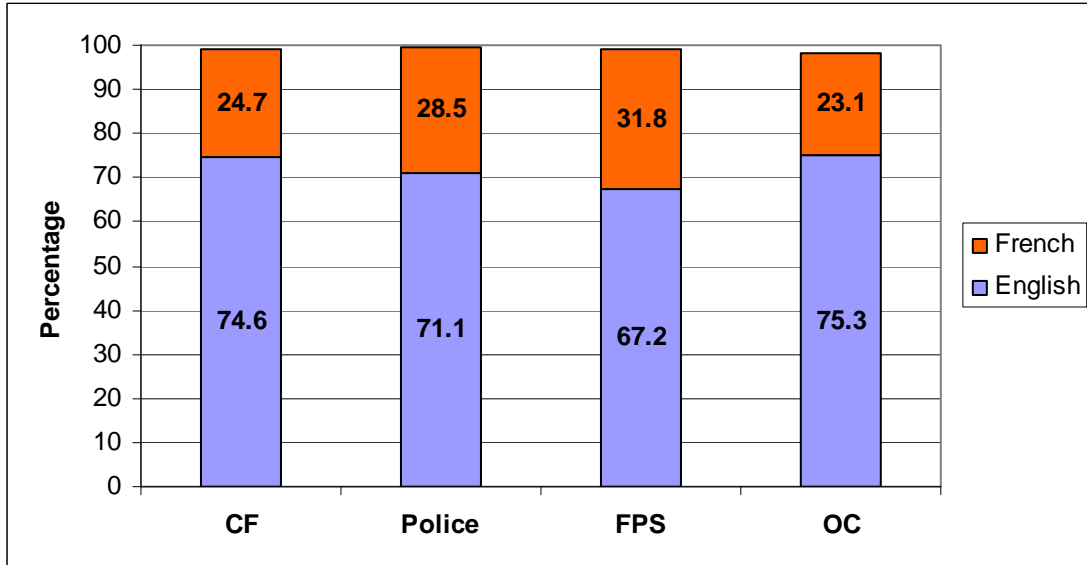


Figure 34: First Official Language of Male Spouses by Group

A.6.1 First Official Language for Male Spouses of Canadian Forces NCMs and those of Canadian Forces Officers

With respect to FOL³¹, Figure 35 indicates that a higher percentage of male spouses of CF Officers report English as their FOL (81.3%) compared to male spouses of CF NCMs (72.3%).

³⁰ A small percentage also reported “English and French” as their FOL: CF-0.6%; Police-0.3%; FPS-0.9%; and OC-1.0% or “Neither English or French” as their FOL: CF-0%; Police-0.3%; FPS-0.1%; and OC-0.7%.

³¹ A small percentage also reported “English and French” as their FOL: CF NCM-0.6%.

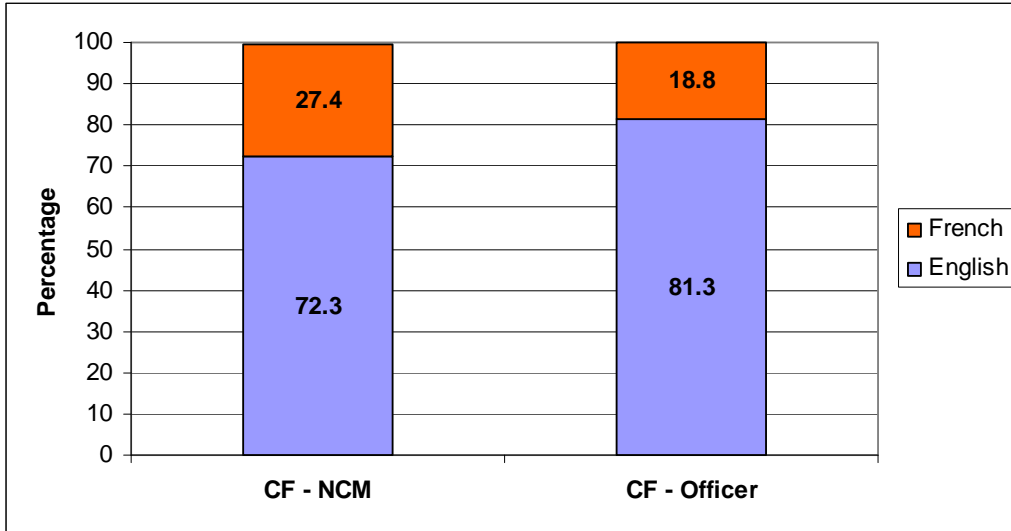


Figure 35: First Official Language of Male Spouses by Canadian Forces NCM and Canadian Forces Officer

A.7 Regional Distribution of Male Spouses³²

Figure 36 illustrates that male spouses of CF have the highest percentage located in Atlantic Canada (19.9%) and the lowest percentage located in Quebec (17.8%). Male spouses of CF and Police have very similar percentages living in the Prairies (17.6% and 17.5% respectively).

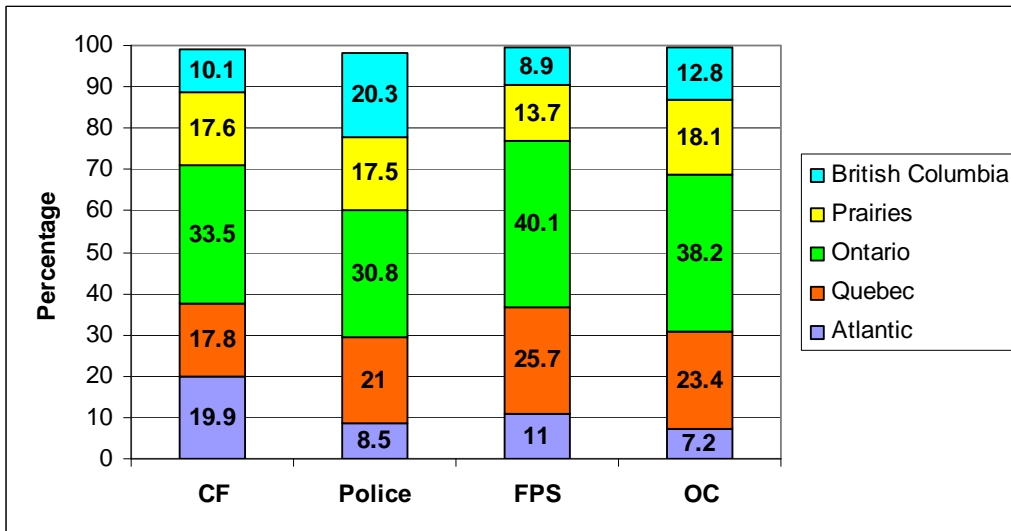


Figure 36: Regional Distribution of Male Spouses by Group.

³² A small percentage also lived in the Territories: CF-0.6%, Police-1.6%, FPS-0.6%, and OC-0.3%.

A.7.1 Regional Distribution for Male Spouses of Canadian Forces NCMs and those of Canadian Forces Officers³³

Figure 37 displays that male spouses of both CF NCMs and CF Officers have their highest percentage in Ontario (30.8% and 40% respectively) and their lowest percentage in British Columbia (10.9% and 9% respectively). In addition, male spouses of both CF NCMs and CF Officers have similar percentages in the Prairies (17.8% and 17.9% respectively).

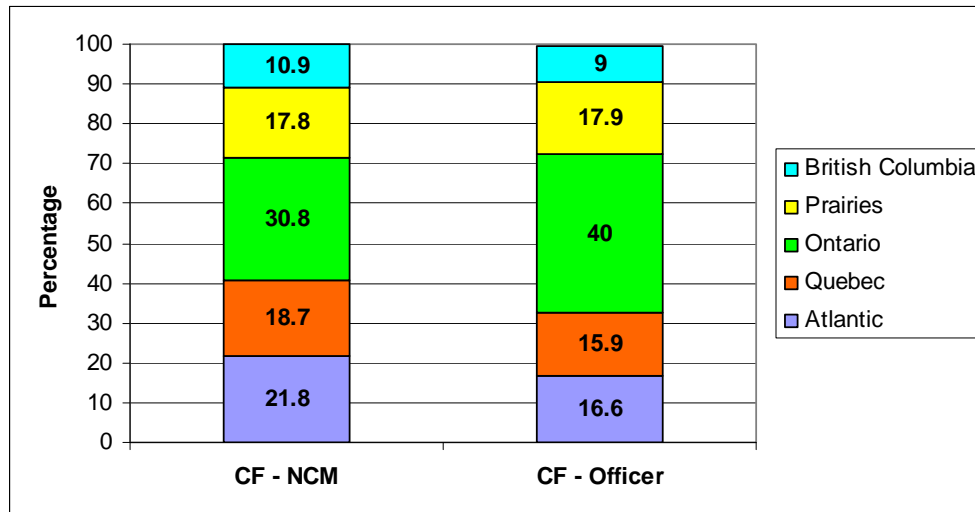


Figure 37: Regional Distribution of Male Spouses by Canadian Forces NCM and Canadian Forces Officer

A.8 One-Year and Five-Year Residential Mobility of Male Spouses

Table 29: One-Year and Five-Year Residential Mobility of Male Spouses by Group.

Time Before the Census	Place of Residence	CF	Police	FPS	OC
	One Year	Same dwelling	83.2%	78.0%	87.6%
Before the Census	Same CSD; different dwelling	8.0%	6.9%	7.2%	8.6%
	Different CSD; same province	3.8%	10.4%	3.2%	4.3%
	Different province	4.4%	4.4%	1.3%	0.9%
	Outside Canada	0.8%	0.3%	0.6%	0.8%
	Five Years	Same dwelling	36.1%	34.5%	56.6%
Before the Census	Same CSD; different dwelling	22.7%	19.0%	24.7%	24.7%
	Different CSD; same province	17.9%	34.0%	11.4%	14.4%
	Different province	21.4%	11.1%	5.3%	3.0%
	Outside Canada	1.9%	1.5%	1.9%	4.0%

³³ A small percentage also lived in the Territories: CF NCM-0.9% and CF Officer-1.4%.

As demonstrated in Table 29, in terms of one-year mobility, male spouses of FPS have the highest percentage of those male spouses who lived in the “same dwelling” (87.6%) one year before the 2006 long-form Census, while Police have the lowest percentage (78%). In addition, male spouses of CF and Police have the highest percentage of “different province” moves (4.4%), while male spouses of CF and OC have the highest percentage of “outside Canada” moves (0.8%).

Compared to the one-year mobility patterns described above, there is considerably more mobility occurring when examining the residential locations of male spouses five years before the 2006 long-form Census. Male spouses of CF were much more likely to have moved provincially (21.4%), and were similar with male spouses of FPS to have moved from outside of Canada (1.9%).

A.8.1 One-Year and Five-Year Residential Mobility for Male Spouses of Canadian Forces NCMs and those of Canadian Forces Officers

As Table 30 reveals, more male spouses of CF Officers lived in the “same dwelling” (87.6%) as they did one year before the 2006 long-form Census than male spouses of CF NCMs (81%). However, more male spouses of CF NCMs lived in a “different province” one year before the 2006 long-form Census (5.7%) than CF Officers (2.1%).

In terms of five-year mobility, the highest percentage for male spouses of both CF NCMs and CF Officers is in the “same dwelling” category (32.8% and 43.8% respectively). However, more male spouses of CF NCMs have moved:

- a. within the “same CSD; different dwelling”;
- b. within the same province;
- c. from a difference province; and
- d. from outside of Canada.

Table 30: One-Year and Five-Year Residential Mobility for Male Spouses of Canadian Forces NCMs and Canadian Forces Officers

	Place of Residence	CF – NCM	CF – Officer
One Year Before the Census	Same dwelling	81.0%	87.6%
	Same CSD; different dwelling	9.6%	4.1%
	Different CSD; same province	3.0%	5.5%
	Different province	5.7%	2.1%
	Outside Canada	0.6%	1.4%
Five Years Before the Census	Same dwelling	32.8%	43.8%
	Same CSD; different dwelling	25.0%	18.1%
	Different CSD; same province	18.1%	17.4%
	Different province	22.0%	20.1%
	Outside Canada	2.1%	1.4%

A.9 Employment Status of Male Spouses

As Figure 38 shows, the largest percentage of male spouses “not in the labour force” corresponds to CF (11.1%), followed by FPS (8.3%), Police (7%), and OC (6.7%). Further, male spouses of CF have the lowest percentage in the “employed” category (85.5%), followed by FPS (88.6%), OC (89.9%) and Police (91.5%).

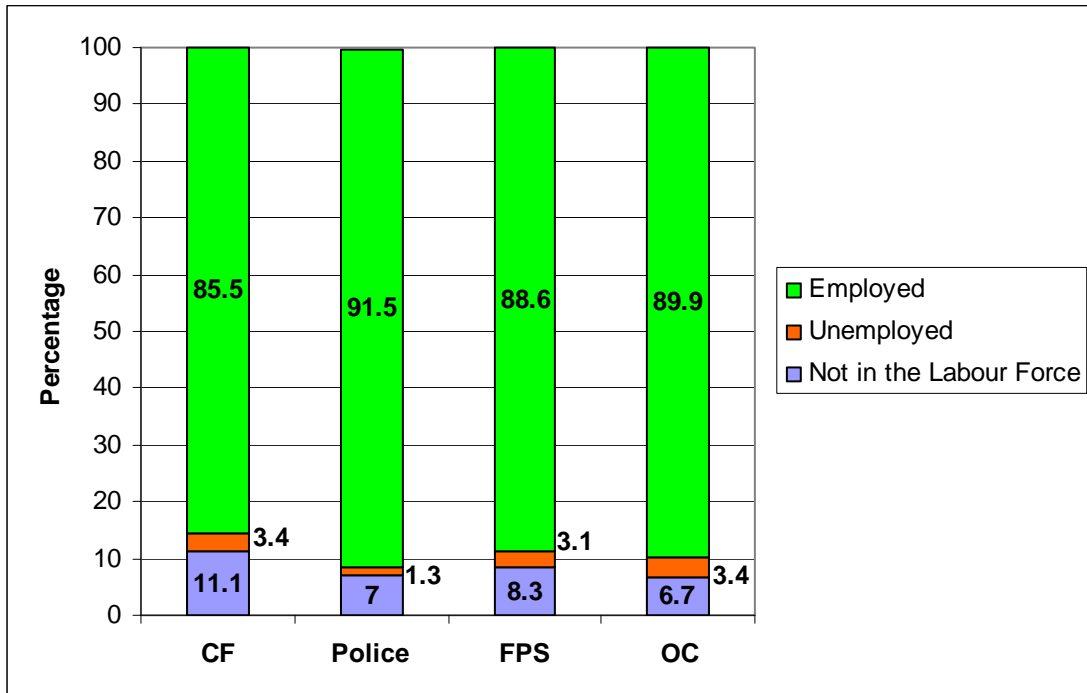


Figure 38: Employment Status of Male Spouses by Group

A.9.1 Employment Status for Male Spouses of Canadian Forces NCMs and those of Canadian Forces Officers

Figure 39 indicates that male spouses of CF NCMs and CF Officers have similar percentages in the “employed” category (84.9% and 86.9% respectively). However, male spouses of CF NCMs have a higher percentage of those “not in the labour force” (12.4%) compared to male spouses of CF Officers (7.6%).

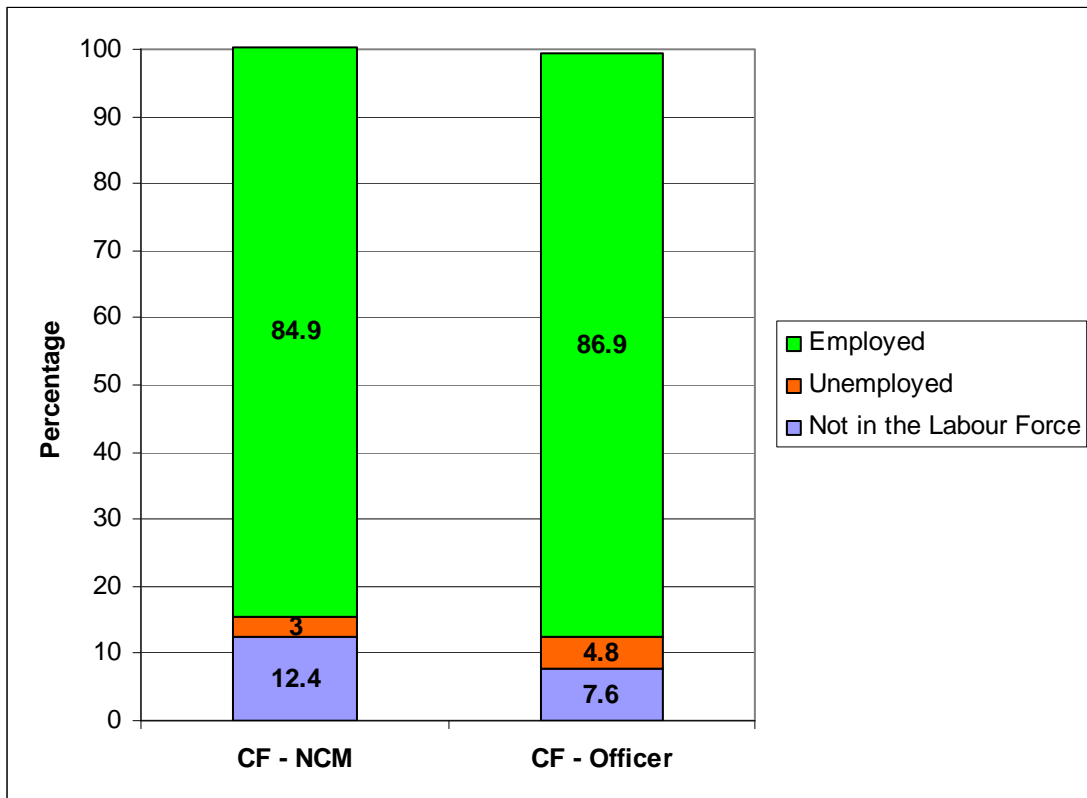


Figure 39: Employment Status of Male Spouses by Canadian Forces NCM and Canadian Forces Officer

A.10 Employment Income of Male Spouses

As illustrated in Figure 40, male spouses of CF have the highest percentage in the “\$40,000-\$59,000” employment income category (24.8%). However, they also have the highest percentage in the “\$0” employment income category (9.2%). Overall, male spouses of Police appear to have the highest employment income.

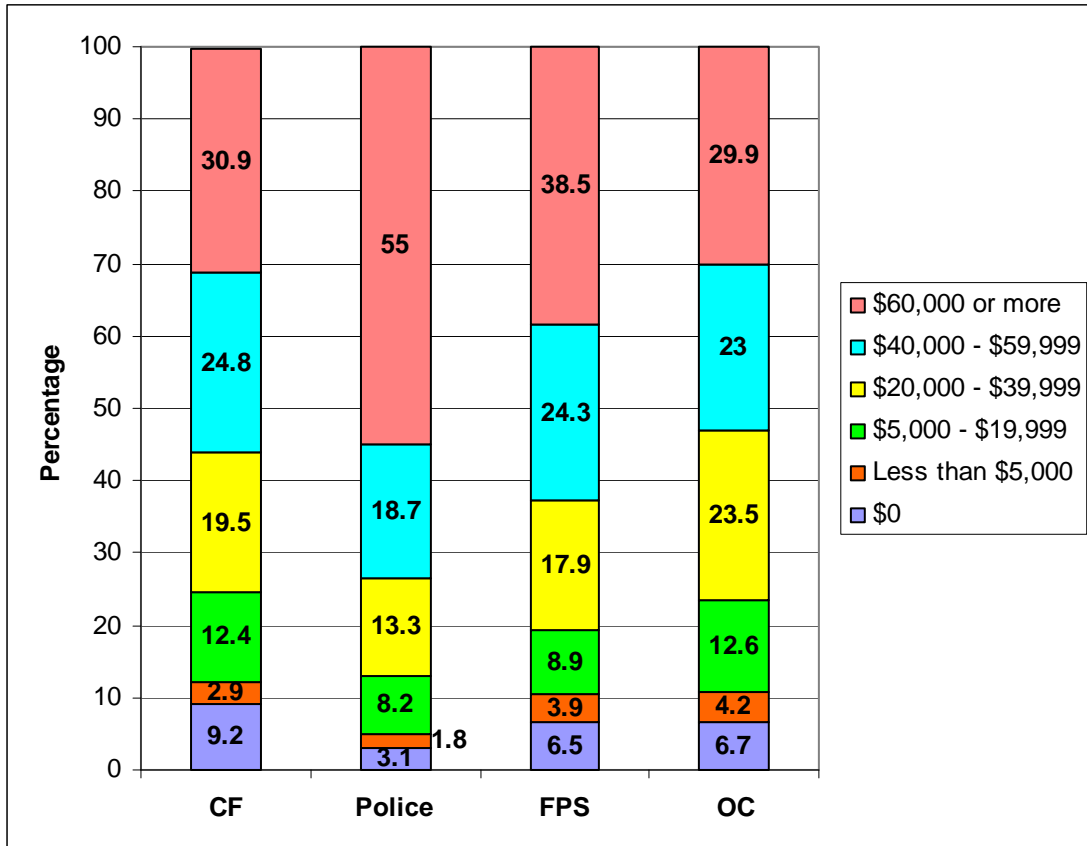


Figure 40: Employment Income of Male Spouses by Group

A.10.1 Employment Income for Male Spouses of Canadian Forces NCMs and those of Canadian Forces Officers

As Figure 41 displays, male spouses of CF Officers have a higher employment income than male spouses of CF NCMs. Specifically, 62.1% of male spouses of CF Officers make \$40,000 or more, compared to 53% of CF NCMs. In addition, there are no male spouses of CF Officers found in the “less than \$5,000” employment income category.

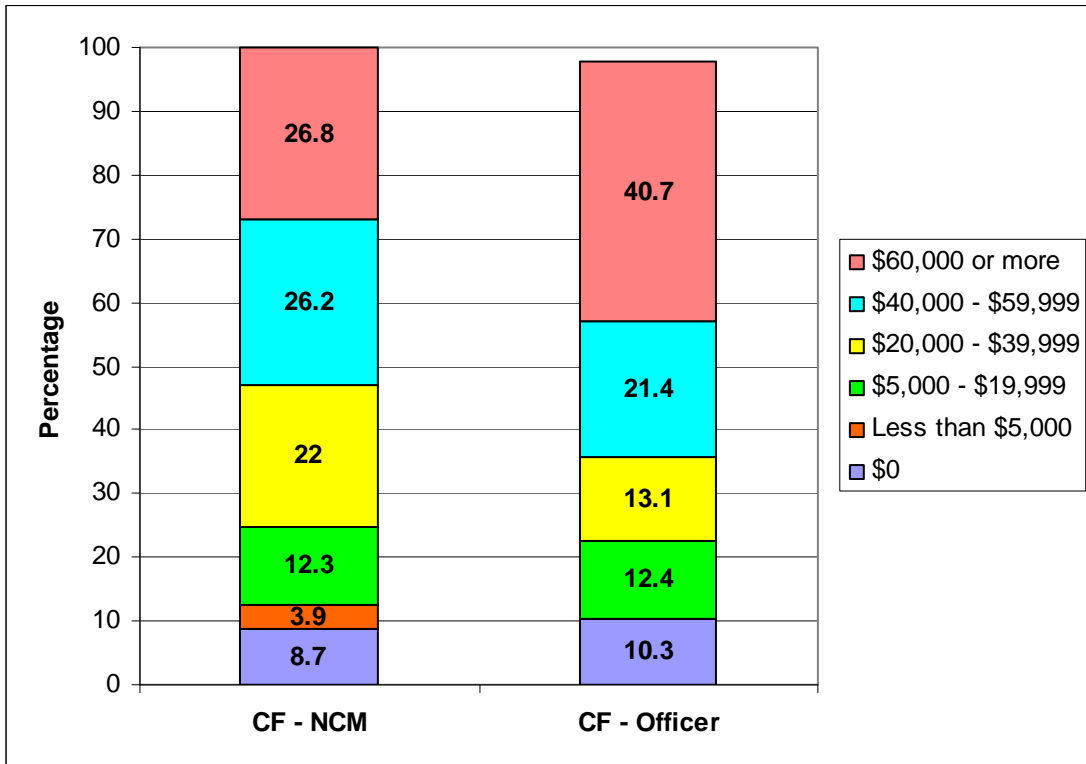


Figure 41: Employment Income of Male Spouses by Canadian Forces NCM and Canadian Forces Officer

Annex B Income Data on Couples

B.1 Average 2005 Income of Couples

Table 31 demonstrates the average employment and total income of couples where the male is CF, Police, FPS or OC³⁴. OC couples had a lower average employment income (\$81,558) in 2005 compared to CF (\$85,159), FPS (\$100,774) and Police (\$108,855) couples. Regarding CF couples specifically, their average employment income was \$3,601 more than OC, \$15,615 less than FPS, and \$23,696 less than Police couples. Further, OC couples had the lowest total income (\$88,879), followed by CF (\$90,204), FPS (\$105,987), and Police (\$113,323). In other words, CF couples had an average total income that was \$1,325 more than OC, \$15,783 less than FPS and \$23,119 less than Police.

Table 31: Average 2005 Income of Couples by Group

	CF	Police	FPS	OC
Employment Income	\$85,159	\$108,855	\$100,774	\$81,558
Other Income	\$5,045	\$4,469	\$5,213	\$7,321
Total Income	\$90,204 (\$411)	\$113,323 (\$623)	\$105,987 (\$340)	\$88,879 (\$118)

Table 32 reveals the percentage of income (employment, other and total) that each spouse in a given group contributes when the male is CF, Police, FPS or OC. Across all four groups, the male spouse contributes a higher percentage of “employment income”, while the female spouse contributes a higher percentage of “other income”. Looking at total income, female spouses of CF couples contribute 27.7%, which is 3.5% less than female spouses of Police, 7.2% less than female spouses of OC, and 9% less than female spouses of FPS.

³⁴ Data was not available for couples where the female is CF, Police, FPS, or OC.

Table 32: Percentages of Income for Each Spouse by Group

		Employment Income	Other Income	Total Income
CF	Female Spouse of CF	\$21,967 (25.8%)	\$2,996 (59.4%)	\$24,961 (27.7%)
	Male CF	\$63,192 (74.2%)	\$2,049 (40.6%)	\$65,243 (72.3%)
	TOTAL	\$85,159	\$5,045	\$90,204
Police	Female Spouse of Police	\$32,316 (29.7%)	\$3,058 (68.4%)	\$35,366 (31.2%)
	Male Police	\$76,539 (70.3%)	\$1,411 (31.6%)	\$77,957 (68.8%)
	TOTAL	\$108,855	\$4,469	\$113,323
FPS	Female Spouse of FPS	\$35,724 (35.4%)	\$3,153 (60.5%)	\$38,874 (36.7%)
	Male FPS	\$65,050 (64.6%)	\$2,060 (39.5%)	\$67,113 (63.3%)
	TOTAL	\$100,774	\$5,213	\$105,987
OC	Female Spouse of OC	\$27,030 (33.1%)	\$4,007 (54.7%)	\$31,038 (34.9%)
	Male OC	\$54,528 (66.9%)	\$3,314 (45.3%)	\$57,841 (65.1%)
	TOTAL	\$81,558	\$7,321	\$88,879

B.1.1 Average 2005 Income of Couples by Canadian Forces NCM and Canadian Forces Officer

Table 33 shows the average employment and total income of couples where the male is a CF NCM or CF Officer³⁵. Couples where the male is a CF NCM had a lower average employment income (\$77,155) than couples where the male is a CF Officer (\$103,847). In other words, couples where the male is a CF NCM had an average employment income that was \$26,692 less than couples where the male is a CF Officer. Further, couples where the male was a CF NCM had a lower total income (\$82,179) than couples where the male was a CF Officer (\$108,942). In other words, couples where the male was a CF NCM had a total income that was \$26,763 less than couples where the male was a CF Officer.

Table 33: Average 2005 Income of Couples by Canadian Forces NCM and Canadian Forces Officer

	CF-NCM	CF-Officer
Employment Income	\$77,155	\$103,847
Other Income	\$5,024	\$5,096
Total Income	\$82,179 (\$409)	\$108,942 (\$857)

³⁵ Data was not available for couples where the female is a CF NCM or CF Officer.

Table 34 illustrates the average percentage of income (employment, other and total) that each spouse in a given group contributes when the male is a CF NCM or CF Officer. For both groups, the male spouse contributes a higher percentage of “employment income”, while the female spouse contributes a higher percentage of “other” income. Looking at average total income, female spouses of CF NCMs contribute 29%, while female spouses of CF Officers contribute 25.3%.

Table 34: Percentages of Income for Each Spouse by Canadian Forces NCM and Canadian Forces Officer

		Employment Income	Other Income	Total Income
CF – NCM	Female Spouse of CF NCM	\$20,825 (27.0%)	\$3,036 (60.4%)	\$23,861 (29.0%)
	Male CF NCM	\$56,330 (73.0%)	\$1,988 (39.6%)	\$58,318 (71.0%)
	TOTAL	\$77,155	\$5,024	\$82,179
CF – Officer	Female Spouse of CF Officer	\$24,639 (23.7%)	\$2,902 (56.9%)	\$27,530 (25.3%)
	Male CF Officer	\$79,208 (76.3%)	\$2,194 (43.1%)	\$81,412 (74.7%)
	TOTAL	\$103,847	\$5,096	\$108,942

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Annex C Logistic Regression Modeling of Employment Status

For each logistic regression modeling exercise, the following three variables were selected individually as indicators of employment status:

- a. the odds³⁶ ratio of being “unemployed” or “not in the labour force” rather than being “employed”, in the week before the 2006 long-form Census;
- b. the odds ratio of being “unemployed” rather than being “employed”, in the week before the 2006 long-form Census, provided that a person is in the labour force at that time; and
- c. the odds ratio of “working less than 30 hours” (often called part-time) rather than working 30 hours or more during the week before the 2006 long-form Census, provided that a person did work at least one hour in that week for pay or in self-employment.

Socio-demographic characteristics available from the 2006 long-form Census (e.g., age, region) were included in the logistic regression modeling exercises. Each model was developed following these five steps:

- a. After the variability in the data was explained by the female spousal group to which individuals belonged, each socio-demographic characteristic was examined individually to determine whether it explained some of the variability in the data. If the obtained p-value of one variable was less than .25, the variable was brought to the next model;
- b. The variables in the new model were eliminated one at a time until all remaining variables had p-values less than .10;
- c. All two-way interactions of the remaining variables³⁷ were added to the next model and then some were eliminated one at a time until all remaining interactions had p-values less than .05³⁸;
- d. If there appeared to be model estimation problems due to no sample in some combinations of variables, the collapsing of the categories of one or more of the explanatory variables was considered; and

³⁶ Odd equals to $p/(1-p)$, where p is the probability of a given event. For example, if probability of a given event A is .90, then the odds of A are $.90/(1-.90)=9$.

³⁷ For example, the probability of being “not in the labour force” is significantly higher for female spouses of Police who lived in the Prairies than for female spouses of Police who lived in Ontario, but this is not true when comparing female spouses of CF NCMs who lived in the Prairies and female spouses of CF NCMs who lived in Ontario.

³⁸ Some logistic regression models include a few interactions with p-values greater than .05.

- e. Hosmer-Lemeshow test³⁹ results for the last new model were examined, and if the model fit seemed poor, the addition or subtraction of additional variables was considered⁴⁰.

By using the logistic regression models, the probabilities⁴¹ of employment status for each female spouse, if one had been the spouse of a given group, were calculated.

³⁹ Hosmer, D.W. & Lemeshow, S. (1989). *Applied Logistic Regression*. New York: John Wiley & Sons, Inc.

⁴⁰ The results of Hosmer-Lemeshow Goodness-of-Fit test statistics showed no evidence of lack of fit for these models, indicating that model results could improve the understanding of employment status of: (1) female spouses of CF compared to female spouses of Police; and (2) female spouses of CF compared to female spouses of FPS.

⁴¹ These average predicted probabilities are also referred to as predictive margins. The predictive margin for a given group represents the average predicted response if everyone in the sample had hypothetically been in the given group. It is believed that presenting predictive margins for group differences is better than interpreting regression coefficients with group-by-other variable interactions in a regression model. This is because “the predictive margin allows one to display the overall group effect on the outcome. This effect is very difficult to see from the regression coefficients” (Graubard, 1999, p. 658). For more information on the advantages and disadvantages of presenting predictive margins, see Graubard, B.I., & Korn, E.L. (1999), Predictive Margins with Survey Data. *Biometrics*, 55, 652-659.

Annex D Output of the Linear Regression Model on Female Spousal Employment Income

Table 35: Number of Observations, Weighted Mean and Multiple R Square

Response Variable: Log Employment Income	
Number of Observations Read	21449
Weighted Mean Response	10.202106
Multiple R-Square for the Dependent Variable	0.527920

Table 36: Summary Table of Variables in the Model

Contrast	Degrees of Freedom	Wald F	P-value Wald F
Overall Model	192	*****	0.0000
Model Minus Intercept	192	462.59	0.0000
Intercept	—	—	—
GROUP	—	—	—
LOGWEEKS_F	1	2240.32	0.0000
FULL-TIME/PART-TIME_F	—	—	—
AGE_F	—	—	—
EDUCATION_F	—	—	—
EDUCATION_M	—	—	—
ATTENDSCHOOL_F	—	—	—
RACE_F	—	—	—
AT LEAST ONE YOUNG CHILD AT HOME	—	—	—
REGION	—	—	—
ONE-YEAR MOBILITY_F	—	—	—
FIVE-YEAR MOBILITY_F	—	—	—
LANGUAGE_F	—	—	—
NUMBER OF CHILDREN AT HOME	3	19.20	0.0000
GROUP and FULL-TIME/PART-TIME_F	3	5.72	0.0007
GROUP and EDUCATION_F	12	2.53	0.0025
GROUP and EDUCATION_M	12	2.27	0.0073
GROUP and ATTENDSCHOOL_F	3	4.28	0.0050
GROUP and AT LEAST ONE YOUNG CHILD AT HOME	3	3.11	0.0253
GROUP and REGION	56	2.14	0.0000
GROUP and ONE-YEAR MOBILITY_F	12	1.94	0.0255
GROUP and LANGUAGE_F	6	2.12	0.0482
AGE_F and EDUCATION_F	12	4.52	0.0000
ONE-YEAR MOBILITY_F and FIVE-YEAR MOBILITY_F	16	2.08	0.0068
EDUCATION_F and RACE_F	4	4.74	0.0008
AGE_F and RACE_F	3	2.80	0.0382

Table 37: Fitted Linear Regression Model

Independent Variables and Effects	Beta Coefficient	SE Beta	T-Test B=0	P-value T-Test B=0
Intercept	5.43	0.29	18.78	0.0000
LOGWEEKS_F	0.81	0.02	47.33	0.0000
GROUP				
CF Officer	0.81	0.43	1.87	0.0617
CF NCM	1.22	0.39	3.12	0.0018
Police	0.89	0.33	2.67	0.0075
FPS	0.00	0.00	—	—
FULL-TIME/PART-TIME_F				
Worked mainly full-time	0.89	0.02	49.60	0.0000
Worked mainly part-time	0.00	0.00	—	—
AGE_F				
24 or younger	-0.84	0.31	-2.74	0.0062
25-34	-0.19	0.05	-3.61	0.0003
35-44	-0.01	0.05	-0.23	0.8194
45 or older	0.00	0.00	—	—
EDUCATION_F				
Less than high school completion	-0.63	0.09	-6.83	0.0000
High school completion	-0.44	0.07	-6.54	0.0000
Some or all college	-0.25	0.06	-4.42	0.0000
Bachelor's degree	-0.05	0.06	-0.89	0.3708
More than bachelor's degree	0.00	0.00	—	—
EDUCATION_M				
Less than high school completion	-0.02	0.04	-0.51	0.6076
High school completion	0.04	0.02	2.02	0.0430
Some or all college	0.01	0.02	0.72	0.4745
Bachelor's degree	0.06	0.02	3.40	0.0007
More than bachelor's degree	0.00	0.00	—	—
ATTENDSCHOOL_F				
Did not attend school	0.10	0.02	5.21	0.0000
Attended school	0.00	0.00	—	—
RACE_F				
Not a visible minority	0.26	0.05	5.08	0.0000
Visible minority or Aboriginal Self-Reporting	0.00	0.00	—	—

Independent Variables and Effects	Beta Coefficient	SE Beta	T-Test B=0	P-value T-Test B=0
AT LEAST ONE YOUNG CHILD AT HOME				
No young child at home	-0.02	0.02	-1.19	0.2331
Young child at home	0.00	0.00	—	—
REGION				
Atlantic, CMA	0.46	0.23	1.95	0.0509
Atlantic, CA	0.39	0.24	1.68	0.0939
Atlantic, Strong/Moderate MIZ	0.25	0.24	1.04	0.2961
Atlantic, Weak/No MIZ, Territories	0.44	0.24	1.88	0.0600
Quebec, CMA	0.59	0.23	2.53	0.0113
Quebec, CA	0.43	0.24	1.83	0.0666
Quebec, Strong/Moderate MIZ	0.48	0.24	2.02	0.0432
Quebec, Weak/No MIZ, Territories	0.42	0.25	1.69	0.0917
Ontario, CMA	0.66	0.23	2.83	0.0047
Ontario, CA	0.50	0.24	2.11	0.0351
Ontario, Strong/Moderate MIZ	0.53	0.24	2.27	0.0231
Ontario, Weak/No MIZ, Territories	0.69	0.27	2.58	0.0099
Prairies and Territories, CMA	0.58	0.23	2.49	0.0127
Prairies and Territories, CA	0.47	0.24	1.99	0.0469
Prairies and Territories, Strong/Moderate MIZ	0.57	0.24	2.35	0.0188
Prairies and Territories, Weak/No MIZ, Territ.	0.51	0.24	2.17	0.0297
British Columbia, CMA	0.58	0.23	2.46	0.0140
British Columbia, CA	0.50	0.24	2.12	0.0342
British Columbia, Strong/Moderate MIZ	0.57	0.25	2.31	0.0207
British Columbia, Weak/No MIZ, Territ.	0.00	0.00	—	—
ONE-YEAR MOBILITY				
Same dwelling	0.19	0.14	1.35	0.1777
Same CSD; different dwelling	0.13	0.16	0.83	0.4066
Different CSD; same province	0.22	0.20	1.12	0.2615
Different province	0.05	0.20	0.23	0.8153
Outside Canada	0.00	0.00	—	—
FIVE-YEAR MOBILITY				
Same dwelling	0.69	0.20	3.35	0.0008
Same CSD; different dwelling	0.11	0.20	0.52	0.6057
Different CSD; same province	0.19	0.41	0.45	0.6552

Independent Variables and Effects	Beta Coefficient	SE Beta	T-Test B=0	P-value T-Test B=0
Different province	-0.20	0.21	-0.99	0.3234
Outside Canada	0.00	0.00	—	—
LANGUAGE_F				
Speak language of province	0.12	0.08	1.49	0.1356
Live in Quebec without knowing French	-0.07	0.11	-0.61	0.5413
Live outside of Quebec without knowing English	0.00	0.00	—	—
NUMBER OF CHILDREN AT HOME				
No children	0.14	0.02	7.31	0.0000
One child	0.09	0.02	4.50	0.0000
Two children	0.09	0.02	4.77	0.0000
Three or more children	0.00	0.00	—	—
GROUP and FULL-TIME/PART-TIME_F				
CF Officer and Worked mainly full-time	-0.03	0.06	-0.46	0.6486
CF Officer and Worked mainly part-time	0.00	0.00	—	—
CF NCM and Worked mainly full-time	-0.14	0.03	-3.91	0.0001
CF NCM and Worked mainly part-time	0.00	0.00	—	—
Police and Worked mainly full-time	-0.09	0.04	-2.18	0.0294
Police and Worked mainly part-time	0.00	0.00	—	—
FPS and Worked mainly full-time	0.00	0.00	—	—
FPS and Worked mainly part-time	0.00	0.00	—	—
GROUP and EDUCATION_F				
CF Officer and Less than high school completion	0.15	0.19	0.78	0.4336
CF Officer and High school completion	0.00	0.08	0.01	0.9894
CF Officer and Some or all college	0.02	0.07	0.27	0.7874
CF Officer and Bachelor's degree	0.06	0.07	0.82	0.4099
CF Officer and More than bachelor's degree	0.00	0.00	—	—
CF NCM and Less than high school completion	-0.18	0.09	-1.90	0.0579
CF NCM and High school completion	-0.24	0.06	-4.30	0.0000
CF NCM and Some or all college	-0.22	0.05	-4.09	0.0000
CF NCM and Bachelor's degree	-0.15	0.06	-2.61	0.0091
CF NCM and More than bachelor's degree	0.00	0.00	—	—
Police and Less than high school completion	0.11	0.10	1.08	0.2819
Police and High school completion	-0.03	0.06	-0.54	0.5920

Independent Variables and Effects	Beta Coefficient	SE Beta	T-Test B=0	P-value T-Test B=0
Police and Some or all college	0.04	0.06	0.73	0.4637
Police and Bachelor's degree	0.08	0.06	1.39	0.1639
Police and More than bachelor's degree	0.00	0.00	—	—
FPS and Less than high school completion	0.00	0.00	—	—
FPS and High school completion	0.00	0.00	—	—
FPS and Some or all college	0.00	0.00	—	—
FPS and Bachelor's degree	0.00	0.00	—	—
FPS and More than bachelor's degree	0.00	0.00	—	—
GROUP and EDUCATION_M				
CF Officer and Less than high school completion	0.28	0.16	1.79	0.0727
CF Officer and High school completion	-0.06	0.08	-0.77	0.4441
CF Officer and Some or all college	-0.04	0.07	-0.61	0.5394
CF Officer and Bachelor's degree	-0.03	0.06	-0.48	0.6324
CF Officer and More than bachelor's degree	0.00	0.00	—	—
CF NCM and Less than high school completion	0.26	0.12	2.20	0.0279
CF NCM and High school completion	0.24	0.11	2.26	0.0240
CF NCM and Some or all college	0.19	0.11	1.72	0.0847
CF NCM and Bachelor's degree	0.23	0.12	1.90	0.0571
CF NCM and More than bachelor's degree	0.00	0.00	----	----
Police and Less than high school completion	0.08	0.12	0.69	0.4910
Police and High school completion	-0.06	0.08	-0.79	0.4304
Police and Some or all college	-0.09	0.08	-1.20	0.2302
Police and Bachelor's degree	-0.19	0.08	-2.34	0.0193
Police and More than bachelor's degree	0.00	0.00	—	—
FPS and Less than high school completion	0.00	0.00	—	—
FPS and High school completion	0.00	0.00	—	—
FPS and Some or all college	0.00	0.00	—	—
FPS and Bachelor's degree	0.00	0.00	—	—
FPS and More than bachelor's degree	0.00	0.00	—	—
GROUP and ATTENDSCHOOL_F				
CF Officer and Did not attend school	-0.18	0.06	-2.93	0.0034
CF Officer and Attended school	0.00	0.00	—	—
CF NCM and Did not attend school	-0.08	0.04	-2.25	0.0244

Independent Variables and Effects	Beta Coefficient	SE Beta	T-Test B=0	P-value T-Test B=0
CF NCM and Attended school	0.00	0.00	—	—
Police and Did not attend school	-0.07	0.04	-1.62	0.1042
Police and Attended school	0.00	0.00	—	—
FPS and Did not attend school	0.00	0.00	—	—
FPS and Attended school	0.00	0.00	—	—
GROUP and AT LEAST ONE YOUNG CHILD AT HOME				
CF Officer and No young child at home	0.07	0.06	1.06	0.2886
CF Officer and Young child at home	0.00	0.00	—	—
CF NCM and No young child at home	0.08	0.04	2.31	0.0211
CF NCM and Young child at home	0.00	0.00	—	—
Police and No young child at home	-0.04	0.03	-1.26	0.2078
Police and Young child at home	0.00	0.00	—	—
FPS and No young Child at Home	0.00	0.00	—	—
FPS and Young child at home	0.00	0.00	—	—
GROUP and REGION				
CF Officer and Atlantic, CMA	-0.55	0.25	-2.20	0.0280
CF Officer and Atlantic, CA	-0.71	0.26	-2.69	0.0072
CF Officer and Atlantic, Strong/Moderate MIZ	-0.45	0.26	-1.70	0.0884
CF Officer and Atlantic, Weak/No MIZ, Territories	-0.84	0.31	-2.71	0.0067
CF Officer and Quebec, CMA	-0.61	0.25	-2.42	0.0157
CF Officer and Quebec, CA	-0.49	0.27	-1.80	0.0713
CF Officer and Quebec, Strong/Moderate MIZ	-0.48	0.28	-1.71	0.0868
CF Officer and Quebec, Weak/No MIZ, Territories	-1.41	0.44	-3.23	0.0013
CF Officer and Ontario, CMA	-0.68	0.25	-2.73	0.0063
CF Officer and Ontario, CA	-0.61	0.26	-2.37	0.0178
CF Officer and Ontario, Strong/Moderate MIZ	-0.55	0.29	-1.88	0.0603
CF Officer and Ontario, Weak/No MIZ, Territories	0.00	0.00	—	—
CF Officer and Prairies and Territories, CMA	-0.70	0.26	-2.69	0.0072
CF Officer and Prairies and Territories, CA	-0.79	0.33	-2.43	0.0151
CF Officer and Prairies and Territories, Strong/Moderate MIZ	-0.63	0.35	-1.82	0.0691

Independent Variables and Effects	Beta Coefficient	SE Beta	T-Test B=0	P-value T-Test B=0
CF Officer and Prairies and Territories, Weak/No MIZ, Territories	-0.48	0.29	-1.65	0.0982
CF Officer and British Columbia, CMA	-0.64	0.25	-2.53	0.0114
CF Officer and British Columbia, CA	-0.65	0.27	-2.42	0.0157
CF Officer and British Columbia, Strong/Moderate MIZ	-0.65	0.29	-2.23	0.0254
CF Officer and British Columbia, Weak/No MIZ, Territories	0.00	0.00	—	—
CF NCM and Atlantic, CMA	-0.79	0.26	-3.04	0.0024
CF NCM and Atlantic, CA	-0.77	0.26	-2.93	0.0034
CF NCM and Atlantic, Strong/Moderate MIZ	-0.67	0.26	-2.56	0.0104
CF NCM and Atlantic, Weak/No MIZ, Territories	-0.85	0.28	-3.06	0.0022
CF NCM and Quebec, CMA	-0.88	0.26	-3.40	0.0007
CF NCM and Quebec, CA	-0.75	0.27	-2.74	0.0061
CF NCM and Quebec, Strong/Moderate MIZ	-0.78	0.29	-2.72	0.0066
CF NCM and Quebec, Weak/No MIZ, Territories	-0.86	0.28	-3.02	0.0025
CF NCM and Ontario, CMA	-0.83	0.26	-3.21	0.0013
CF NCM and Ontario, CA	-0.94	0.27	-3.55	0.0004
CF NCM and Ontario, Strong/Moderate MIZ	-0.84	0.27	-3.14	0.0017
CF NCM and Ontario, Weak/No MIZ, Territories	-2.33	0.49	-4.76	0.0000
CF NCM and Prairies and Territories, CMA	-0.76	0.26	-2.91	0.0037
CF NCM and Prairies and Territories, CA	-0.74	0.26	-2.79	0.0053
CF NCM and Prairies and Territories, Strong/Moderate MIZ.	-0.68	0.29	-2.35	0.0188
CF NCM and Prairies and Territories, Weak/No MIZ, Territories.	-0.67	0.28	-2.37	0.0177
CF NCM and British Columbia, CMA	-0.86	0.26	-3.24	0.0012
CF NCM and British Columbia, CA	-0.75	0.27	-2.73	0.0063
CF NCM and British Columbia, Strong/Moderate MIZ	-0.38	0.31	-1.23	0.2199
CF NCM and British Columbia, Weak/No MIZ, Territ.	0.00	0.00	—	—
Police and Atlantic, CMA	-0.35	0.26	-1.36	0.1753

Independent Variables and Effects	Beta Coefficient	SE Beta	T-Test B=0	P-value T-Test B=0
Police and Atlantic, CA	-0.50	0.26	-1.89	0.0591
Police and Atlantic, Strong/Moderate MIZ	-0.32	0.27	-1.23	0.2203
Police and Atlantic, Weak/No MIZ, Territories	-0.33	0.26	-1.26	0.2075
Police and Quebec, CMA	-0.45	0.25	-1.79	0.0738
Police and Quebec, CA	-0.38	0.25	-1.51	0.1313
Police and Quebec, Strong/Moderate MIZ	-0.59	0.27	-2.22	0.0265
Police and Quebec, Weak/No MIZ, Territories	-0.43	0.28	-1.55	0.1221
Police and Ontario, CMA	-0.44	0.25	-1.74	0.0820
Police and Ontario, CA	-0.28	0.26	-1.11	0.2674
Police and Ontario, Strong/Moderate MIZ	-0.34	0.26	-1.32	0.1875
Police and Ontario, Weak/No MIZ, Territories	-0.46	0.28	-1.62	0.1047
Police and Prairies and Territories, CMA	-0.43	0.25	-1.71	0.0874
Police and Prairies and Territories, CA	-0.25	0.26	-0.98	0.3286
Police and Prairies and Territories, Strong/Moderate MIZ.	-0.45	0.27	-1.70	0.0898
Police and Prairies and Territories, Weak/No MIZ, Territories.	-0.36	0.25	-1.40	0.1601
Police and British Columbia, CMA	-0.30	0.25	-1.19	0.2356
Police and British Columbia, CA	-0.32	0.26	-1.26	0.2087
Police and British Columbia, Strong/Moderate MIZ	-0.65	0.29	-2.24	0.0248
Police and British Columbia, Weak/No MIZ, Territories	0.00	0.00	—	—
FPS and Atlantic, CMA	0.00	0.00	—	—
FPS and Atlantic, CA	0.00	0.00	—	—
FPS and Atlantic, Strong/Moderate MIZ	0.00	0.00	—	—
FPS and Atlantic, Weak/No MIZ, Territories	0.00	0.00	—	—
FPS and Quebec, CMA	0.00	0.00	—	—
FPS and Quebec, CA	0.00	0.00	—	—
FPS and Quebec, Strong/Moderate MIZ	0.00	0.00	—	—
FPS and Quebec, Weak/No MIZ, Territories	0.00	0.00	—	—
FPS and Ontario, CMA	0.00	0.00	—	—
FPS and Ontario, CA	0.00	0.00	—	—

Independent Variables and Effects	Beta Coefficient	SE Beta	T-Test B=0	P-value T-Test B=0
FPS and Ontario, Strong/Moderate MIZ	0.00	0.00	—	—
FPS and Ontario, Weak/No MIZ, Territories	0.00	0.00	—	—
FPS and Prairies and Territories, CMA	0.00	0.00	—	—
FPS and Prairies and Territories, CA	0.00	0.00	—	—
FPS and Prairies and Territories, Strong/Moderate MIZ.	0.00	0.00	—	—
FPS and Prairies and Territories, Weak/No MIZ, Territories	0.00	0.00	—	—
FPS and British Columbia, CMA	0.00	0.00	—	—
FPS and British Columbia, CA	0.00	0.00	—	—
FPS and British Columbia, Strong/Moderate MIZ	0.00	0.00	—	—
FPS and British Columbia, Weak/No MIZ, Territories	0.00	0.00		—
GROUP and ONE-YEAR MOBILITY				
CF Officer and Same dwelling	-0.30	0.17	-1.82	0.0693
CF Officer and Same CSD; different dwelling	-0.07	0.18	-0.37	0.7079
CF Officer and Different CSD; same province	-0.12	0.18	-0.64	0.5191
CF Officer and Different province	-0.22	0.18	-1.25	0.2124
CF Officer and Outside Canada	0.00	0.00	—	—
CF NCM and Same dwelling	-0.21	0.22	-0.94	0.3467
CF NCM and Same CSD; different dwelling	-0.21	0.23	-0.91	0.3642
CF NCM and Different CSD; same province	-0.20	0.23	-0.86	0.3872
CF NCM and Different province	-0.27	0.23	-1.20	0.2301
CF NCM and Outside Canada	0.00	0.00	—	—
Police and Same dwelling	-0.21	0.15	-1.41	0.1586
Police and Same CSD; different dwelling	-0.12	0.16	-0.79	0.4290
Police and Different CSD; same province	-0.14	0.16	-0.86	0.3901
Police and Different province	-0.15	0.17	-0.88	0.3774
Police and Outside Canada	0.00	0.00	—	—
FPS and Same dwelling	0.00	0.00	—	—
FPS and Same CSD; different dwelling	0.00	0.00	—	—
FPS and Different CSD; same province	0.00	0.00	—	—
FPS and Different province	0.00	0.00	—	—

Independent Variables and Effects	Beta Coefficient	SE Beta	T-Test B=0	P-value T-Test B=0
FPS and Outside Canada	0.00	0.00	—	—
GROUP and LANGUAGE_F				
CF Officer and Speak language of province	0.10	0.31	0.32	0.7454
CF Officer and Live in Quebec without knowing French	0.55	0.37	1.46	0.1433
CF Officer and Live outside of Quebec without knowing English.	0.00	0.00	—	—
CF NCM and Speak language of province	-0.28	0.16	-1.80	0.0714
CF NCM and Live in Quebec without knowing French	-0.15	0.38	-0.39	0.6976
CF NCM and Live outside of Quebec without knowing English	0.00	0.00	—	—
Police and Speak language of province	-0.03	0.14	-0.21	0.8344
Police and Live in Quebec without knowing French	0.36	0.21	1.71	0.0869
Police and Live outside of Quebec without knowing English	0.00	0.00	—	—
FPS and Speak language of province	0.00	0.00	—	—
FPS and Live in Quebec without knowing French	0.00	0.00	—	—
FPS and Live outside of Quebec without knowing English	0.00	0.00	—	—
AGE_F, EDUCATION_F				
24 or younger and Less than high school completion	0.48	0.32	1.51	0.1310
24 or younger and High school completion	0.49	0.30	1.60	0.1096
24 or younger and Some or all college	0.66	0.30	2.17	0.0300
24 or younger and Bachelor's degree	0.41	0.30	1.34	0.1788
24 or younger and More than bachelor's degree	0.00	0.00	—	—
25-34 and Less than high school completion	0.00	0.10	0.05	0.9607
25-34 and High school completion	0.07	0.05	1.39	0.1634
25-34 and Some or all college	0.14	0.04	3.57	0.0004
25-34 and Bachelor's degree	0.12	0.04	2.98	0.0029
25-34 and More than bachelor's degree	0.00	0.00	—	—
35-44 and Less than high school completion	-0.16	0.07	-2.26	0.0239
35-44 and High school completion	-0.05	0.04	-1.48	0.1378
35-44 and Some or all college	-0.02	0.03	-0.61	0.5397

Independent Variables and Effects	Beta Coefficient	SE Beta	T-Test B=0	P-value T-Test B=0
35-44 and Bachelor's degree	0.01	0.04	0.40	0.6866
35-44 and More than bachelor's degree	0.00	0.00	—	—
45 or older and Less than high school completion	0.00	0.00	—	—
45 or older and High school completion	0.00	0.00	—	—
45 or older and Some or all college	0.00	0.00	—	—
45 or older and Bachelor's degree	0.00	0.00	—	—
45 or older and More than bachelor's degree	0.00	0.00	—	—
ONE-YEAR MOBILITY and FIVE-YEAR MOBILITY				
Same dwelling and Same dwelling	-0.44	0.21	-2.05	0.0403
Same dwelling and Same CSD; different dwelling	0.13	0.21	0.61	0.5410
Same dwelling and Different CSD; same province	0.00	0.42	-0.01	0.9941
Same dwelling and Different province	0.34	0.21	1.58	0.1137
Same dwelling and Outside Canada	0.00	0.00	—	—
Same CSD; different dwelling and Same dwelling	-0.34	0.24	-1.42	0.1559
Same CSD; different dwelling and Same CSD; different dwelling	0.08	0.22	0.37	0.7131
Same CSD; different dwelling and Different CSD; same province	-0.02	0.43	-0.04	0.9717
Same CSD; different dwelling and Different province	0.45	0.23	1.96	0.0503
Same CSD; different dwelling and Outside Canada	0.00	0.00	—	—
Different CSD; same province and Same dwelling	-0.52	0.26	-1.99	0.0464
Different CSD; same province and Same CSD; different dwelling	0.12	0.26	0.47	0.6408
Different CSD; same province and Different CSD; same province	-0.08	0.44	-0.19	0.8532
Different CSD; same province and Different province	0.28	0.26	1.06	0.2894
Different CSD; same province and Outside Canada	0.00	0.00	—	—
Different province and Same dwelling	0.28	0.32	0.86	0.3879
Different province and Same CSD; different dwelling	0.25	0.26	0.97	0.3334
Different province and Different CSD;	0.03	0.45	0.07	0.9443

Independent Variables and Effects	Beta Coefficient	SE Beta	T-Test B=0	P-value T-Test B=0
same province				
Different province and Different province	0.40	0.26	1.55	0.1207
Different province and Outside Canada	0.00	0.00	—	—
Outside Canada and Same dwelling	0.00	0.00	—	—
Outside Canada and Same CSD; different dwelling	0.00	0.00	—	—
Outside Canada and Different CSD; same province	0.00	0.00	—	—
Outside Canada and Different province	0.00	0.00	—	—
Outside Canada and Outside Canada	0.00	0.00	—	—
EDUCATION_F and RACE_F				
Less than high school completion and Not a visible minority	-0.21	0.09	-2.50	0.0125
Less than high school completion and Visible minority or Aboriginal self-reporting	0.00	0.00	—	—
High school completion and Not a visible minority	-0.14	0.07	-2.09	0.0369
High school completion and Visible minority or Aboriginal self-reporting	0.00	0.00	—	—
Some or all college and Not a visible minority	-0.23	0.05	-4.24	0.0000
Some or all college and Visible minority or Aboriginal self-reporting	0.00	0.00	—	—
Bachelor's degree and Not a visible minority	-0.17	0.06	-3.03	0.0024
Bachelor's degree and Visible minority or Aboriginal self-reporting	0.00	0.00	—	—
More than bachelor's degree and Not a visible minority	0.00	0.00	—	—
More than bachelor's degree and Visible minority or Aboriginal self-reporting	0.00	0.00	—	—
AGE_F and RACE_F				
24 or younger and Not a visible minority	-0.13	0.08	-1.75	0.0806
24 or younger and Visible minority or Aboriginal self-reporting	0.00	0.00	—	—
25-34 and Not a visible minority	-0.08	0.04	-1.90	0.0578
25-34 and Visible minority or Aboriginal self-reporting	0.00	0.00	—	—
35-44 and Not a visible minority	0.01	0.04	0.31	0.7566

Independent Variables and Effects	Beta Coefficient	SE Beta	T-Test B=0	P-value T-Test B=0
35-44 and Visible minority or Aboriginal self-reporting	0.00	0.00	—	—
45 or older and Not a visible minority	0.00	0.00	—	—
45 or older and Visible minority or Aboriginal self-reporting	0.00	0.00	—	—

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List of symbols/abbreviations/acronyms/initialisms

CA	Census Agglomerations
CF	Canadian Forces
CMA	Census Metropolitan Area
CMP	Chief Military Personnel
CSD	Census Sub-Division
DGMPRA	Director General Military Personnel Research and Analysis
FOL	First Official Language
FPS	Federal Public Servants
MIZ	Metropolitan Influenced Zone
NCM	Non-Commissioned Members
OC	Other Civilians
OPP	Ontario Provincial Police
RCMP	Royal Canadian Mounted Police
<i>SE</i>	Standard Error
SPEI	Spousal/Partner Employment and Income
StatsCan	Statistics Canada

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The aim of this report is to address one of two key research questions for the Spousal/Partner Employment and Income project, namely, “What is the employment status and income of Canadian Forces spouses vis-à-vis comparable groups?” Utilizing data from the 2006 long-form Census, when comparing female spouses of Canadian Forces, Police, Federal Public Servants and Other Civilians, there were similarities found on a number of socio-demographic characteristics (e.g., the presence of young children at home). Parallel findings were also found when comparing the differences between female spouses of Non-Commissioned Members and Officers of Canadian Forces personnel. Logistic regression modeling of employment status showed that a number of variables play a role in the employment status of female spouses (e.g., region), while linear regression modeling showed that female spouses of Canadian Forces personnel have lower employment incomes than other female spouses. Overall, this report demonstrates that female spouses of Canadian Forces personnel were found to have different socio-demographic characteristics as well as different employment statuses/incomes than female spouses of the comparable groups.

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Age; Census; CF Spouses; Children; Education; Employment Status; First Official Language; Income; Linear Regression; Logistic Regression; Mobility; Region; Socio-demographic; Visible Minority Status



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