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FACTORS ASSOCIATED WITH FEMALE EMPLOYMENT RATES IN RURAL AND SMALL TOWN CANADA

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HIGHLIGHTS

- **There are significant differences in labour market experiences when comparing women in rural and small town (RST) labour markets and women in the labour markets of larger urban centres (LUC). However, contrary to the expectations of many, these differences do not appear to be due to differences in access to childcare facilities, differences in returns to human capital or differences in "traditional attitudes" to the role of women in labour markets.**

- **In RST areas, older women are more likely to be working, compared to women of the same age in LUC, when all other factors are held constant.**

- **Also, women in LUC are less likely to be working in a given year if the income of the household was higher in the previous year – however, this relationship is significantly less pronounced for rural areas.**

Introduction

Historically, female employment rates[1] in rural areas have been significantly below the rates for women in urban areas (Bollman, 1991; Fuguitt, Brown and Beale, 1989). The objective of this paper is to explore some of the factors associated with these rural-urban differences in female employment rates.

[1] "Employment" includes paid work, self-employed work and unpaid labour in a family business or farm. The employment rate is the percent of all individuals (in this paper, 16 to 60 years of age) who are employed.

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Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

Data source

The data are drawn from Statistics Canada's Survey of Labour and Income Dynamics, which is a micro-longitudinal survey of about 15,000 households covering about 31,000 individuals 16 years of age and over. The survey includes all Canadians, except residents in the Yukon and Northwest Territories, residents of institutions, residents of Indian Reserves and full-time members of the Canadian Armed Forces living in barracks. We restrict our analysis to women who are 16 to 60 years of age.

Definitions

We designate the RST population to be persons living outside "census metropolitan areas" (CMAs) and outside "census agglomerations" (CAs). A CMA is an urban core of 100,000 persons or more plus all neighbouring municipalities where 50 percent or more of the workforce commutes to the urban core. A CA is an urban core of 10,000 to 99,999 persons plus all neighbouring municipalities where 50 percent or more of the workforce commutes to the urban core. For details on the delineation of CMAs and CAs, see Statistics Canada (1999), pp. 183-195.

Most employed women stay employed in the following year

For women in RST Canada, if they are working in the first year, then 93 percent will be working in the following year and 7 percent will not be employed in the following year (Table 1). These rates are essentially identical to the pattern for women in LUC (94 percent and 6 percent, respectively).

For women in low income households[2] in RST areas who are working in the initial year, the proportion that stay working in the following year is lower (83 percent) than in LUC – i.e. in RST areas, there is a higher share of low income women who do not work in two consecutive years. For low income RST women who are not employed in the initial year, a higher share (84 percent) are not working in the following year, compared to LUC low income women (76 percent). Thus, in RST areas, there is a lower mobility into employment among women in low income households.

Overall, on average, 75 percent of women (16 to 60 years of age) in RST areas are working in the 1994 to 1996 period, compared to 79 percent of women in LUC.

Table 1. **Annual rate of mobility into and out of employment, 1994 to 1996 averages, Canada**

Employment status in the initial year	Employment status in the following year					
	Women in RST areas			Women in LUC areas		
	Not working	Working	Total	Not working	Working	Total
	*** Percent of all women ***					
Not working	80	20	100	78	21	100
Working	7	93	100	6	94	100
Total[1]	25	75	100	21	79	100
	*** Percent of women in low income households ***					
Not working	84	16	100	76	24	100
Working	17	83	100	14	86	100
Total[1]	49	51	100	44	56	100

[1] *"Total" refers to both groups together (i.e. "not working" and "working").*
Source: *Statistics Canada, Survey of Labour and Income Dynamics.*

Given the somewhat lower employment rates for RST women, we next investigate the association of employment rates with the factors determining employment to see whether RST women have a greater or lesser association with each factor, compared to women in LUC.

[2] "Low income households" are households with total household income below Statistics Canada's low income cut-off. For details, see Statistics Canada (1999), p. 132.

Table 2. Factors associated with female employment rates, 1994 to 1996, Canada

Variable			Results from the analysis that includes a variable indicating whether employed in previous year	
	Impact of variable on employment rates for women in LUC[1]	Is the impact of this variable GREATER or LESS for RST women, relative to LUC women?[2]	Impact of variable on employment rates for women in LUC[1]	Is the impact of this variable GREATER or LESS for RST women, relative to LUC women?[2]
All women				
Was employed in previous year	n.a.	n.a.	POS.	n.s.
Age (years of age)	NEG.	GREATER	NEG.	GREATER
Number of children	NEG.	n.s.	n.s.	n.s.
Youngest child is under 5 years of age	NEG.	n.s.	NEG.	n.s.
High school graduate but no post-secondary[3]	POS.	n.s.	POS.	n.s.
Some post-secondary education[3]	POS.	n.s.	POS.	n.s.
Married or partner is present	n.s.	n.s.	n.s.	n.s.
Lives in owned dwelling	POS.	LESS	POS.	n.s.
Size of "other" household income (previous year)	NEG.	GREATER	NEG.	GREATER
Is disabled or has a work limitation	NEG.	n.s.	NEG.	n.s.
Prince Edward Island[4]	n.s.	n.s.	n.s.	n.s.
Nova Scotia[4]	n.s.	LESS	n.s.	n.s.
New Brunswick[4]	n.s.	n.s.	n.s.	n.s.
Quebec[4]	NEG.	n.s.	NEG.	n.s.
Newfoundland[4]	NEG.	LESS	n.s.	LESS
Manitoba[4]	POS.	LESS	POS.	LESS
Saskatchewan[4]	POS.	n.s.	POS.	n.s.
Alberta[4]	n.s.	n.s.	n.s.	n.s.
British Colombia[4]	POS.	LESS	POS.	n.s.
1995[5]	n.s.	GREATER	n.s.	n.s.
1996[5]	POS.	n.s.	POS.	n.s.

n.a. indicates "not applicable".
n.s. indicates the variable is "not significant" in the sense that the impact of this variable on female employment rates is not statistically different from zero.
[1] *This column provides the association between the variables and the employment rate for women in LUC.*
[2] *This column indicates whether the association between each variable and the employment rate is different for women in RST areas. Note that if the impact for LUC women is "NEG.", then GREATER implies "less negative" which means that the impact (negative) of the variable is less for RST. The words in the text indicate the sense of the results -- such as more older RST women are employed relative to LUC women.*
[3] *The impact of education is evaluated compared to women with less than a high school graduation.*
[4] *The impact of a province is evaluated compared to women in Ontario.*
[5] *The impact of the year is evaluated compared to 1994.*
Source: *Statistics Canada. Survey of Labour and Income Dynamics.*

Table 2. Factors associated with female employment rates, 1994 to 1996, Canada (concluded)

Variable			Results from the analysis that includes a variable indicating whether employed in previous year	
	Impact of variable on employment rates for women in LUC[1]	Is the impact of this variable GREATER or LESS for RST women, relative to LUC women?[2]	Impact of variable on employment rates for women in LUC[1]	Is the impact of this variable GREATER or LESS for RST women, relative to LUC women?[2]
Women in low income households				
Was employed in previous year	n.a.	n.a.	POS.	n.s.
Age (years of age)	NEG.	n.s.	NEG.	n.s.
Number of children	n.s.	n.s.	n.s.	n.s.
Youngest child is under 5 years of age	NEG.	n.s.	NEG.	n.s.
High school graduate but no post-secondary[3]	POS.	n.s.	POS.	n.s.
Some post-secondary education[3]	POS	n.s.	POS.	n.s.
Married or partner is present	n.s.	n.s.	n.s.	n.s.
Lives in owned dwelling	POS.	n.s.	n.s.	n.s.
Size of "other" household income (previous year)	NEG.	n.s.	NEG.	n.s.
Is disabled or has a work limitation	NEG.	n.s.	NEG.	n.s.
Prince Edward Island[4]	n.s.	n.s.	n.s.	n.s.
Nova Scotia[4]	n.s.	n.s.	n.s.	n.s.
New Brunswick[4]	n.s.	n.s.	n.s.	n.s.
Quebec[4]	n.s.	n.s.	NEG.	n.s.
Newfoundland[4]	n.s.	n.s.	n.s.	n.s.
Manitoba[4]	n.s.	n.s.	POS.	n.s.
Saskatchewan[4]	n.s.	GREATER	n.s.	GREATER
Alberta[4]	n.s.	n.s.	n.s.	n.s.
British Colombia[4]	n.s.	n.s.	n.s.	GREATER
1995[5]	n.s.	n.s.	POS.	LESS
1996[5]	n.s.	n.s.	POS.	LESS

n.a. indicates "not applicable".
n.s. indicates the variable is "not significant" in the sense that the impact of this variable on female employment rates is not statistically different from zero.
[1] This column provides the association between the variables and the employment rate for women in LUC.
[2] This column indicates whether the association between each variable and the employment rate is different for women in RST areas. Note that if the impact for LUC women is "NEG.", then GREATER implies "less negative" which means that the impact (negative) of the variable is less for RST. The words in the text indicate the sense of the results -- such as more older RST women are employed relative to LUC women.
[3] The impact of education is evaluated compared to women with less than a high school graduation.
[4] The impact of a province is evaluated compared to women in Ontario.
[5] The impact of the year is evaluated compared to 1994.
Source: *Statistics Canada. Survey of Labour and Income Dynamics.*

Older women are less likely to be employed (but rural older women are more likely to be employed than urban older women)

We find older women are less likely to be employed – that is, there is a negative association between age and the probability of being employed. However, we find that older RST women are more likely to be employed than are older women in LUC (compare the first and second columns of Table 2 for the variable "age"). When we take into account the fact that the woman was working in the previous year, we still see that older women are less likely to be employed. And we still see that RST older women are more likely to be employed than are older women in LUC (compare the third and fourth columns of Table 2 for the variable "age").

Fewer women with children are employed (and rural is the same as urban)

We find that the more children there are in the family, the lower is the employment rate of women in LUC. There is no difference in the employment rates of RST women – RST women have a lower employment rate associated with the number of children that is the same as the lower employment rate for LUC women. Similarly, the female employment rate is lower if there is a child under 5 years of age. Again, there is no difference in the employment rates for RST women, compared to LUC women, due to the presence of a child under 5 years of age. Thus, there is no evidence of a "relatively lower" RST employment rate that might be due to RST areas having relatively fewer day care facilities or that might be due to "traditional attitudes" regarding childcare that would lower the employment rate of RST women.

Women with high school graduation are more likely to be employed (and rural is the same as urban)

We find that employment rates for women with high school graduation are higher than the employment rates of women without high school graduation[3]. Also, we find that employment rates for women with some post-secondary education are higher than for women without a high school diploma. The pattern is the same for RST women – the employment rates are not relatively higher nor relatively lower for RST compared to women in LUC. Thus, there is no evidence that the level of educational attainment constrains employment rates (nor enhances employment rates) for RST women relative to women in LUC.

[3] Each of these factors is evaluated holding all other factors constant. Thus, our findings showed that women with high school graduation have higher employment rates after holding constant all other factors, such as age. This means that employment rates for women with high school graduation are higher for each age group.

We find women living in an owned dwelling have higher employment rates. However, this factor is significantly less strong for RST women – there is a weaker association between "living in an owned" dwelling and female employment rates in RST areas compared to women in LUC.

We find that women in households with a higher level of "other" household income in the previous year are less likely to be employed in the present year. For RST women, this relationship is significantly less pronounced than for women in LUC.

Women with work limitations (i.e. with a work related disability) are less likely to be employed. The same pattern holds for RST women.

There are rural-urban differences in some provinces

There are interesting differences among the provinces[4]:

- In Nova Scotia, RST women are less likely to be employed than are women in LUC.

- In Quebec, women in LUC are less likely to be employed compared to women in LUC in Ontario – and Quebec RST women show the same pattern (i.e. a lower employment rate) as women in LUC in Quebec.

- In Newfoundland, women in LUC are less likely to be employed compared to women in LUC in Ontario – and Newfoundland RST women have an even lower employment rate than women in LUC in Newfoundland.

- In Manitoba, women in LUC are more likely to be employed compared to women in LUC in Ontario – but Manitoba RST women are less likely to be employed compared to women in LUC in Manitoba.

- In Saskatchewan, women in LUC are more likely to be employed compared to women in LUC in Ontario – and Saskatchewan RST women are equally likely to be employed compared to women in LUC in Saskatchewan.

- In British Columbia, women in LUC are more likely to be employed compared to women in LUC in Ontario – but British Columbia RST women are less likely to be employed than are women in LUC in British Columbia.

[4] Recall that "employed" includes paid work, self-employed work and unpaid family labour in a family business or farm. Thus, women employed on farms may influence some of these comparisons among the provinces because a higher share of women on farms are employed compared to non-farm women.

The analysis for low income women found similar relationships for most, but not all, of the variables. The only rural-urban differences appear for the variables indicating residence in Saskatchewan and in British Columbia.

Conclusions

There are significant differences in labour market experiences when comparing women in RST labour markets and women in the labour markets of LUC. However, contrary to the expectations of many, these differences appear not to be due to differences in access to childcare facilities, differences in returns to human capital or differences in "traditional attitudes" to the role of women in labour markets.

In RST areas, older women are more likely to be employed, compared to women in LUC, when all other factors are held constant. Also, women in LUC are less likely to be working in a given year if the income of the household was high in the previous year – however, this relationship is significantly less pronounced for rural areas.

References

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For background details, refer to the research paper: **Female Employment Rates and Labor Market in Rural Canada** (Ottawa: Analytic Studies Branch Research Paper No. 153, Cat. No. 11F0019MPE No. 153) which will soon be available free at www.statcan.ca. To order a paper copy, phone 613-951-6325 or the Regional Reference Centre at 1-800-263-1136. Esperanza Vera-Toscano prepared this paper when she held a postgraduate studentship at Statistics Canada in Ottawa. Questions may be addressed to Ray D. Bollman at 613-951-3737 (bollman@statcan.ca).