

# Couples working shift

*Katherine Marshall*

A great deal of attention has been paid to the phenomenal growth in dual-earner families, and the difficulty such families face in balancing work and family life. Often, the focus is on the number of hours, both full- and part-time, worked by these couples. However, little is known about *which* hours of the day they work. The work schedules of family members, particularly those who work shift,<sup>1</sup> can add further complexity to family life. In general, family conflict tends to be greater if at least one spouse works shift (Presser, 1987; Staines and Pleck, 1983).

Schedules that are not "9 to 5" can increase the difficulty of coordinating work and family life. On the other hand, staggered employment schedules can be an advantage for families with young children who need, or prefer, to reduce their reliance on paid child care.

When workers have some choice or control over their shifts, problems relating to shift work and family life are reduced (Staines and Pleck, 1983). The November 1995 Survey of Work Arrangements (SWA), used for this study, asked why people worked shift, but did not collect detailed information on choice or control (see *Data source and definitions* and *Choosing shift*).

This article examines the prevalence of shift work among full-time dual-earner couples. In order to determine which husbands and wives are likely to work shift, it analyzes several job and life-cycle characteristics. It also examines the degree of work schedule overlap among shift and non-shift couples with fixed work hours.

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## Data source and definitions

The Survey of Work Arrangements (SWA), sponsored by Human Resources Development Canada, was conducted as a supplement to the November 1995 Labour Force Survey (LFS). It collected, among other things, data on the work schedules and hours of work of all paid workers.

**Full-time dual-earner couples** : married or common-law couples in which, at the time of the survey, both partners were paid workers who usually spent 30 or more hours a week at their main job. The rationale behind selecting such

couples is that two full-time work schedules are more likely to have an onerous effect on family life than are one or more part-time schedules.

**Employee**: any person who receives remuneration, usually in the form of a wage or salary from an employer.

**Shift work**: a regular evening, night or graveyard shift, rotating or split shift, on-call, casual or other form of irregular work arrangement.

**Non-shift work**: a regular daytime schedule.

## Choosing shift

All shift employees were asked for the main reason they worked this kind of schedule. Although the majority of both husbands and wives said it was the requirement of the job, 7% of husbands and 11% of wives reported something else. The most common non job-related reason reported by husbands was to earn more money. For wives, half of those who reported reasons other than job requirement said that care for children and other family members was their main motive for working shift.

Respondents were asked to select only the main reason for shift work. For those who reported a reason other than job requirement, shift schedule was probably the preferred arrangement. However, for those who stated requirement of the job as the main reason, the arrangement may or may not have been preferred, and for those who did prefer the schedule, their reason is not known.

## Shift work among dual-earners common

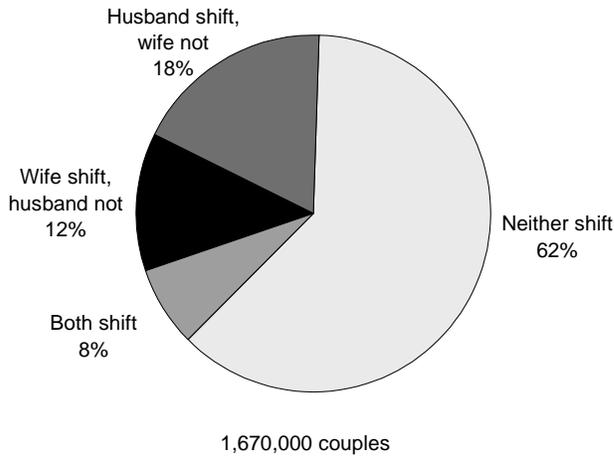
According to the SWA, in 1.7 million dual-earner couples both the husband and wife worked full time<sup>2</sup> in November 1995. In 62% of these couples (just over one million) both partners worked a regular daytime schedule (Chart A). For the remaining 38% (634,000) at least one spouse worked shift.

In 18% of dual-earner couples husbands worked shift while wives had a regular day job; in 12%, wives worked shift while husbands worked regular days; and in 8%, both worked shift.

## Time is of the essence

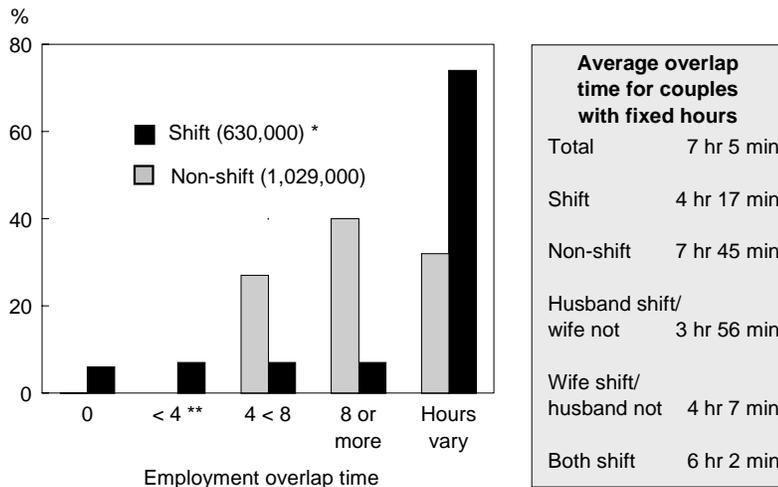
The 1992 General Social Survey found that full-time dual-earner couples were among the most "time-crunched" groups in society (Frederick, 1993). Both the number of hours these couples spend at work and their schedules affect potential time available for

**Chart A**  
**In 4 out of 10 dual-earner couples at least one partner works shift.**



Source: Survey of Work Arrangements, November 1995

**Chart B**  
**In one out of 4 shift couples both spouses have fixed work hours.**



Source: Survey of Work Arrangements, November 1995

Note: Excluded are couples who did not state their hours.

\* Full-time dual-earner couples in which at least one spouse works shift.

\*\* Excludes 0 hours.

family activities. Theoretically, spouses who work the same hours can spend more time together than those who work two different schedules. However, couples with different schedules can increase the amount of time at least one partner could be at home, which may be a positive trade-off if there are children or elderly relatives in need of care.

According to the 1995 SWA, shift couples were more likely than non-shift couples to have one or both spouses with varying start or end times for their job (74% or 465,000 couples, compared with 32% or 335,000 couples) (Chart B). Slight variations, such as one- or two-hour differences at the end or start of each workday, might not cause too much disruption to family life. Wide variations, however, or not knowing from week to week what hours one or more family members will be working, could put extra strain on the family because making leisure plans and/or arranging child care becomes more difficult. (Because their hours were varied, neither the degree of variation experienced nor their employment overlap could be determined for some 800,000 couples.)

### Couples with fixed hours

Non-shift couples with *fixed* hours (68% or 695,000) reported the greatest average period during which both partners were at work (7 hours and 45 minutes per day). Of the shift couples with fixed hours (26% or 165,000), those in which both partners worked shift had the next highest employment overlap at just over 6 hours, and couples in which only one partner worked shift while the other worked a regular daytime schedule had the least overlap, at approximately 4 hours. About one-quarter of shift couples with fixed hours had no overlap, meaning about 40,000 full-time dual-earner couples worked at completely different times of the day.<sup>3</sup>

Table 1  
Average daily work and overlap hours of full-time dual-earner couples with fixed hours

	Number	Work hours			Total daily hours			
		Total	Husbands	Wives	Both at work *	Only one spouse at work		Neither at work **
	'000	hours:minutes						
<b>Total</b>	<b>860</b>	<b>16:05</b>	<b>8:16</b>	<b>7:49</b>	<b>7:05</b>	<b>1:11</b>	<b>0:44</b>	<b>15:00</b>
Non-shift	695	15:55	8:10	7:45	7:45	0:25	-	15:50
Shift	165	16:46	8:38	8:08	4:17	4:21	3:51	11:31
Husband shift								
Wife not	96	16:28	8:36	7:52	3:56	4:40	3:56	11:28
Wife shift								
Husband not	45	16:28	8:16	8:12	4:07	4:09	4:05	11:39
Both shift	24	18:33	9:25	9:08	6:02	3:23	3:06	11:29

Source: Survey of Work Arrangements, November 1995

\* The time per day that both husband and wife are at work at the same time (employment overlap).

\*\* The time per day that both husband and wife are not at work at the same time. This is calculated by subtracting work times from 24 hours.

Among the full-time couples in which both partners had usual work start and end times, non-shift couples had the least average combined employment hours (15 hours, 55 minutes), while those in which both partners worked shift had the most (18 hours, 33 minutes) (Table 1). Furthermore, because non-shift couples experienced the greatest employment overlap, they reported the longest period when neither spouse was working (roughly 16 hours). On the other hand, shift couples had an average 4 hours and 20 minutes less shared time off each day, because their employment overlap was less, and their average workdays were longer.<sup>4</sup>

### Determinants of shift work...

One in four husbands and one in five wives in full-time dual-earner couples worked shift in November 1995. A number of factors govern the decision to work shift. Some people may do so because their job requires it. Others may because of family responsibili-

ties. Shift work may also be taken on for financial reasons (as it allows someone to work at a second job, or to work unusual hours that can sometimes command extra pay). And some people may simply prefer an irregular and/or non-day schedule, or have other personal reasons for selecting this arrangement.

Therefore, job and life-cycle characteristics are broad proxies for "no choice" and "preference" as reasons for working shift. The two explanations are not mutually exclusive. For example, many workers in service occupations, which have high rates of shift work, may be working shift because of the nature of the job; others may have chosen the job because it enables them to work shift.

### ...can be job-related...

The 1991 SWA found that shift work was typically more common for those who were single, male, young and engaged in essential service or blue-collar jobs (Sunter, 1993). Similarly,

the 1995 data show that occupation<sup>5</sup> is a good indicator for predicting the likelihood of working shift. All the broad blue-collar occupations – primary, processing, machining, fabricating, transport equipment operating, material handling and other crafts – had above-average rates for shift work, as did occupations in medicine and service (Table 2). Because 4 out of 10 husbands were employed in blue-collar occupations, compared with only one in 10 wives, their overall rate of shift work was higher. In only two occupational groups did wives have higher rates of shift work: professional (24% versus 18% for husbands) and sales (30% versus 17%). Within these broad groups, two sizeable sub-groups, nursing and commodity sales, both of which are female-dominated, had high rates of shift work.

Shift work was also associated with job characteristics related to occupation and industry. Working in a unionized job increased the likelihood of working shift for both sexes,

**Table 2**  
**Full-time dual-earner couples by occupation and selected job characteristics**

	All workers		Proportion working shift	
	Husbands	Wives	Husbands	Wives
<b>Total</b>	<b>1,670</b>	<b>1,670</b>	<b>428</b>	<b>329</b>
			'000	
			%	
<b>Occupation</b>	<b>100</b>	<b>100</b>	<b>26</b>	<b>20</b>
Managerial and administrative	19	20	11	10
Professional	18	26	18	24
Medicine and health	2	10	56	48
Other professional *	16	16	13	10
Clerical	6	29	22	9
Sales	7	7	17	30
Service	8	9	56	47
Primary **	2	--	38	--
Processing, machining and fabricating	22	7	33	26
Processing	5	2	54	40
Machining	4	--	28	50
Fabricating	13	6	27	21
Construction	8	--	--	--
Transport equipment operating	5	--	39	--
Material handling and other crafts	5	2	50	--
<b>Union coverage</b>	<b>100</b>	<b>100</b>	<b>26</b>	<b>20</b>
Unionized †	47	42	32	23
Non-unionized	53	58	20	18
<b>Multiple jobholder</b>	<b>100</b>	<b>100</b>	<b>26</b>	<b>20</b>
Yes	4	3	30	34
No	96	97	25	19
<b>Sector</b>	<b>100</b>	<b>100</b>	<b>26</b>	<b>20</b>
Public	21	24	22	10
Private	79	76	27	23
<b>Job tenure</b>	<b>100</b>	<b>100</b>	<b>26</b>	<b>20</b>
12 months or less	15	13	24	20
13 to 60 months	24	29	28	22
61 to 120 months	20	27	25	22
More than 120 months	41	31	25	15

Source: Survey of Work Arrangements, November 1995

\* Includes natural sciences, social sciences, religion, teaching, and artistic and literary.

\*\* Includes farming, fishing, forestry and mining.

† Includes both union members and persons who are not union members, but who are covered by collective agreements.

though more so for husbands than for wives. Some 32% of husbands and 23% of wives who belonged to a union worked shift, compared with 20% and 18% of those who did not.

Multiple jobholders (particularly wives) were also more likely to work shift. (Approximately one in three multiple jobholders had a main job in which he or she worked shift.)

Working as a public employee greatly reduced the incidence of shift work among wives (10% worked shift, compared with 23% in the private sector), and slightly reduced it for husbands (22%, compared with 27%). On the other hand, essential service work, such as law enforcement or firefighting, increased the likelihood of shift work. Men were more likely

than women to hold such jobs. Finally, seniority appeared to have little effect on whether men worked shift, and only a slight influence on the situation of women. Only 15% of wives who had been at their job for 10 years or longer worked shift.

### ...or life-cycle related

On average, younger husbands and wives were more likely to work shift (Table 3). For example, husbands who worked shift were an average six months younger than those who did not, and wives who worked shift were an average one-and-a-half years younger than those who did not.

Also, couples with children under 16 at home were somewhat more likely than others to have at least one spouse working shift. Some 26% of couples who both worked shift had at least one preschool aged child at home, compared with only 23% of non-shift couples.

The presence of children under 16 was highest among couples in which the husband worked shift and the wife worked regular days (56%); these couples also had, on average, the highest number of preschoolers at home (1.4). These findings support earlier research that suggests couples with children may try to stagger their schedules, preferring the husband to work shift: "...it may be that both spouses prefer for the husband rather than wife to work a non-day shift – if the options are there – because of the children" (Presser, 1984).

### Statistical determinants

In order to determine which job or life-cycle factors better predict shift work among husbands and wives, this study used multivariate analysis (see *Logistic regression*). This technique isolates each variable and reveals its relationship with the probability of shift work while holding all other variables constant. Thus, it is possible to learn, for example, whether unionization still influences shift status when

**Table 3**  
**Full-time dual-earner couples by selected personal characteristics**

	No shift work	Shift work			
		Total	Husband only	Wife only	Both
years					
<b>Average age</b>					
Husbands	41	40	40	39	39
Wives	38	37	38	37	36
%					
<b>With children at home</b>					
At least one under 16	50	51	56	45	49
At least one under 6	23	24	24	23	26
number					
<b>Average number of children at home</b>					
Children under 16	1.66	1.68	1.66	1.65	1.77
Children under 6	1.29	1.32	1.41	1.23	1.27

Source: Survey of Work Arrangements, November 1995

occupation, other job characteristics and life-cycle variables are the same for everyone.

Regression analysis shows that class of worker, union coverage, job tenure, occupation and partner's employment status were each significantly associated with shift work for both husbands and wives when all other variables were held constant (Appendix). For example, those who had jobs in the private sector in November 1995 had significantly higher odds of working shift than public employees – 1.7 times greater for husbands and 2.6 for wives. Also, workers who belonged to a union were just over 2 times more likely to work shift than those who did not.

Although cross-tabulations revealed only a slight relationship between shift work and job tenure, regression analysis shows significantly increased odds of working shift for both husbands and wives who had spent 10 years or less at their job, compared with those who had tenure of 20 years or more. Husbands and wives in service jobs and professional medical positions had the highest odds of working shift. Husbands working in service occupations, for example, were 9.0 times more likely to work shift than those in managerial and administrative jobs.

Multiple jobholding was found to be significantly related to the probability of shift work for wives but not

for husbands: wives with more than one job were 2.1 times more likely to work shift than wives who had only one job.

The number of children at home did not significantly influence the likelihood of shift work, with one exception. For wives with two children under 16 at home, the odds of working shift were 0.6, or 40% lower than for those with no children under 16 at home. Also, the odds of working shift were twice as high for both husbands and wives if the other spouse worked shift. Finally, age proved to be statistically significant only for wives, whose chance of working shift decreased with age.

## Summary

In November 1995, one in four husbands and one in five wives in full-time dual-earner couples worked shift. This translated into 634,000 couples in which at least one spouse worked shift. Shortage of time was more acute among these couples, who worked longer hours, on average, than non-shift couples, and had less potential time off together as a result of their staggered work schedules.

A number of job and life-cycle characteristics – occupation, public or private employment, union coverage, age, presence and age of children at home – were related to shift status, some more strongly than others.

Roughly one in 10 shift workers, proportionally more women than men, worked shift for reasons other than job requirement. The remaining 90% said their schedule was job-related, which may or may not mean their shift schedule was a preferred work arrangement. □

## Logistic regression

Logistic regression models the probability of a certain condition or outcome as a function of one or more discrete or continuous variables. The coefficients from a fitted logistic model are frequently used to estimate the odds of the condition occurring for a particular level of a variable, compared with a reference level of the variable, when all other

independent variables in the model are held constant. In this article, the odds ratios were calculated using SUDAAN,<sup>6</sup> a software package that can take account of some of the complexities of the design of the SWA. Here, the statistic indicates whether certain variables increase or decrease the chances (odds) of working shift.

## Acknowledgement

The author wishes to thank Georgia Roberts, Social Survey Methods Division, for her time and assistance with the logistic regression models.

■ **Notes**

1 In this article shift work refers to all schedules that are full-time, but are not regular daytime. (See *Data source and definitions* for more detail.)

2 The analysis is based on only those couples in which both spouses were employees.

3 These 40,000 couples are among the 26% of shift couples with regular work hours. More shift couples probably have zero employment overlap, but in the remaining 74% at least one partner has varying work hours, so employment overlap time cannot be calculated.

4 Shift work sometimes requires people to work fewer, but longer, days per week; for example, jobs requiring four consecutive days of 10-hour shifts, and then three days off.

5 Although not presented, industry, too, was found to be correlated with shift work. For men, high rates of shift work were found in primary industries and transportation, and for women, in trade and services.

6 SUDAAN is a trademark of the Research Triangle Institute. See Shah, Barnwell and Bieler (1997) for more details.

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Appendix

**Odds ratios from logistic regression of the shift status of full-time dual-earner couples**

Explanatory variables (1)	Husband works shift	Wife works shift
<b>Job characteristics</b>		
Private employee	1.7 ***	2.6 ***
Public employee	1.0	1.0
Unionized (2)	2.1 ***	2.2 ***
Non-unionized	1.0	1.0
Multiple jobholder	1.3 ns	2.1 *
Not a multiple jobholder	1.0	1.0
<b>Job tenure</b>		
12 months or less	1.6 *	2.2 **
13 to 60 months	1.8 **	2.2 **
61 to 120 months	1.4 *	2.4 ***
121 to 240 months	1.4 *	1.4 ns
More than 240 months	1.0	1.0
<b>Occupation</b>		
Managerial and administrative	1.0	1.0
Medicine and health	7.9 ***	6.6 ***
Other professional	1.1 ns	1.0 ns
Clerical	2.0 **	0.8 ns
Sales	1.4 ns	3.3 ***
Service	9.0 ***	6.8 ***
Primary occupations	3.7 ***	--
Processing, machining and fabricating	2.9 ***	2.2 ***
Construction	--	--
Transport equipment operating	4.7 ***	--
Material handling	5.0 ***	--
Other crafts	7.5 ***	--
<b>Personal characteristics</b>		
No children under 16	1.0	1.0
One child under 16	1.2 ns	0.9 ns
Two children under 16	1.2 ns	0.6 ***
Three or more children under 16	1.2 ns	1.3 ns
Spouse does not work shift	1.0	1.0
Spouse works shift	2.0 ***	1.7 ***
15 to 24 years old	1.0	1.0
25 to 34 years old	1.1 ns	0.7 *
35 to 44 years old	1.3 ns	0.7 ns
45 to 54 years old	1.2 ns	0.5 **
55 to 69 years old	1.1 ns	0.3 **

Source: SUDAAN Survey Data Analysis

- (1) The shaded category for each variable represents the reference category, with which all other categories are compared.
- (2) Includes both union members and persons who are not union members, but who are covered by collective agreements.
- \* Difference with reference category significant at the .05 level.
- \*\* Difference with reference category significant at the .01 level.
- \*\*\* Difference with reference category significant at the .001 level.
- ns Not statistically significant.