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by Susan Crompton

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Introduction

In 2010, slightly more than 1 in 4 Canadian workers described their day-to-day lives as highly stressful, according to the General Social Survey (GSS). This proportion is about the same as reported earlier in the decade by the 2005 General Social Survey and the 2002 Canadian Community Health Survey.¹ Persistently high levels of stress among such a share of the workforce present a challenge to both employers and to the health care system.

Over time, employers lose productivity to stress through absenteeism, reduced work output, and increased disability claims.² Mental health problems alone are estimated to cost employers about \$20 billion annually³ and account for over three-quarters of short-term disability claims in Canada.⁴

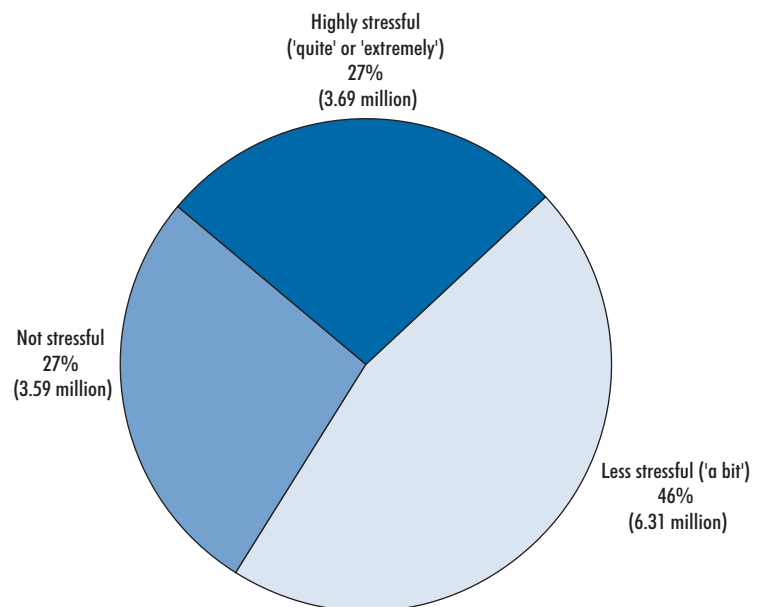
Given the economic costs of stress and stress-related illnesses, it is not surprising that much of the social science research on stress emphasizes job- and work-related stress. But about 4 in 10 highly stressed Canadian workers identify a problem other than work as the main source of their stress and when they bring it into the workplace, it can affect their performance and that of their colleagues.⁵

This article uses the 2010 General Social Survey on Time Use to examine how workers aged 20 to 64 who report being highly stressed differ from those who report being less stressed. Then, it focuses on the five main issues that highly stressed workers identified as their primary

sources of stress and compares selected characteristics of these workers—for instance, differences between those who are anxious about work compared to those concerned about their finances or about a family situation.

Chart 1 Over one-quarter of working adults say their lives are very stressful

percentage of employed population aged 20 to 64



Source: Statistics Canada, General Social Survey, 2010.

What you should know about this study

Data used in this article are from the 2010 General Social Survey (GSS) on Time Use, which interviewed Canadians aged 15 or older over living in the ten provinces. The time use cycle of the GSS monitors changes in time use, including time-stress and well-being.

This study focuses on adults aged 20 to 64 with a job in the 7 days preceding the survey and who reported that, on most days, their lives were 'quite a bit' or 'extremely' stressful. This study population comprises a sample of over 1,750 respondents representing almost 3.7 million adults.

Definitions

Worker: Respondent had a job in the 7 days preceding the survey (includes workers who were absent from their job that week because they were on vacation).

Stressed: The GSS asked respondents "Thinking about the amount of stress in your life, would you say that most days are: not at all stressful; not very stressful; a bit stressful; quite a bit stressful; or extremely stressful?"

Workers classified as **highly stressed** are those who reported that most days were 'quite a bit' or 'extremely' stressful. **Less stressed** workers are those who reported that most days were 'a bit' stressful.

Main or primary source of stress: If respondents reported that their lives were 'a bit' to 'extremely' stressful, the GSS then asked "What is your main source of stress?" Responses were then classified into the following categories: work; financial concerns; family; not enough time; health; school work; and other, which included issues such as relationship

problems, isolation, obligations and responsibilities, and general worry and anxiety.

There are 5 categories of main source of stress presented in this article: work, financial concerns, family, not enough time, and personal and other. The category 'personal and other' combines the health, school work and other response categories to the main source of stress question since the sample sizes are too small to conduct separate analyses for each category.

White-collar jobs: include management and professional occupations; technologists, technicians and technical occupations.

Pink-collar jobs: include clerical and sales and services occupations.

Blue-collar jobs: include trades, transport and equipment operators and related occupations; occupations unique to primary industries; and occupations unique to processing, manufacturing and utilities.

The logistic regression model

In order to isolate the individual factors associated with different levels of stress, a logistic regression model was developed to estimate the odds that a respondent with a given characteristic reported being **highly stressed** rather than **less stressed**, while removing the effect of other factors. The model excludes workers who reported no stress.

The odds ratios were estimated through a weighted regression that used GSS survey weights, with variance estimation done through survey bootstrapping. Statistical significance was calculated at $p < 0.05$ (Table A.1).

Over 1 in 4 workers report being highly stressed

According to the 2010 General Social Survey (GSS), 27% of Canadian workers described their lives on most days as 'quite a bit' or 'extremely' stressful. This means that almost 3.7 million working adults went through a regular day feeling a high level of stress (Chart 1). Another 6.3 million (46%) said they were 'a bit' stressed. (See *What you should know about this study* for information about data and terms.)

Tolerance for stress can differ from one person to another. Medical and psychological research show that responses to chronic stress can be influenced by the nature of the stressor⁶ and that a person's temperament and personality can alleviate or exacerbate its effects.⁷ However, the way an individual has learned to cope with stress plays an important role in his or her response to potentially difficult events.⁸

The following paragraphs focus on workers who reported at least some level of stress (73% of all working adults aged 20 to 64). Among these stressed workers, 37% reported that they were highly stressed and 63% that they were less stressed. Among the stressed workers who described their mental health as less than good, almost two-thirds (62%) reported that they were highly stressed. Among workers who thought their mental health was excellent, the figure was 27%. The same pattern holds with

respect to physical health, although the gap is considerably smaller—49% compared to 32% (Table 1).

Workers employed in management, professional and clerical occupations were more likely to report being highly stressed than those in blue-collar jobs. Being self-employed and having a household income under \$40,000 or over \$80,000 somewhat increased the likelihood of being highly stressed.

Workers with one or two children were more likely than those without children to describe their lives as quite or extremely stressful. Similarly, workers who were divorced or living common-law had a greater probability of being highly stressed. Workers who had immigrated between 1980 and 1995 were also more likely to be highly stressed than those born in Canada.

A worker's sex and level of education did not affect the probability that he or she would report that their life was quite or extremely stressful.

When a logistic regression model was used to isolate the factors associated with the odds of being a highly stressed worker, five characteristics remained significant: mental health, occupation, marital status, immigrant status and physical health (Table A.1).

This general portrait of highly stressed workers is useful but it can be refined. How different are workers who are highly stressed about their job from workers who are highly stressed about their finances? Are they a lot different from workers who are highly stressed about not having enough time in their day? The remainder of the article focuses on the primary sources of stress reported by workers who describe their lives as quite a bit or extremely stressful.

Six in ten highly stressed workers identify work as their main source of stress

The majority of highly stressed workers (62%) identified work as their main source of stress. Clustered far behind were financial concerns and

not having enough time (both at 12%), family matters, and personal and other issues such as relationships, health and generalized worries (Chart 2). These proportions are very similar to those reported in 2005.

That so many working Canadians would feel very stressed about work is not surprising: they are on the job for a substantial part of the day; it consumes a great deal of their mental and often physical energy; and they must meet those challenges year after year.

Other issues identified by highly stressed workers may not be related to their job situation, but they can produce the same negative effects. All types of long-term stress increase the risk of being diagnosed with anxiety and depression⁹ and chronic physical illness.¹⁰

Workers stressed mainly about work are well-educated and have white-collar jobs

Highly stressed workers who identified their job or workplace as their main source of stress were well-educated—

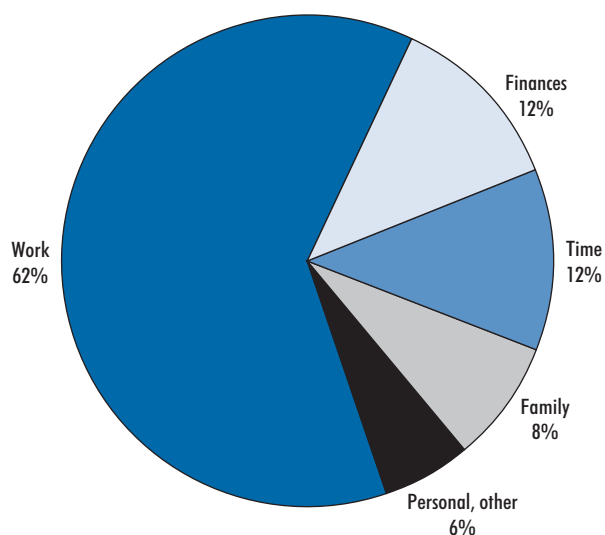
almost three-quarters had a college or university education—and over one-half held white-collar jobs in management, professional or technical occupations. Given this background, it is not surprising that the largest group (45%) reported a household income of \$100,000 or more; only 17% had incomes under \$60,000. More than 8 in 10 were paid employees (Table 2).

The majority were men (55%) and the largest group was aged 35 to 49 (43%). About three-quarters lived with a spouse or partner, but just under one-half had children in the household. In terms of household type, 43% lived with their spouse and children, 29% lived with their spouse only, 9% lived alone, 4% were lone parents, and 16% lived in some other type of household.

About three-quarters of highly work-stressed workers lived in a metropolitan area. Almost 9 in 10 had been born in Canada or were immigrants who had lived in Canada for at least 30 years.

Chart 2 Work is the main source of stress for 6 in 10 highly stressed workers

percentage of highly stressed employed population aged 20 to 64



Source: Statistics Canada, General Social Survey, 2010.

Table 1 Proportion of employed stressed adults aged 20 to 64 reporting that life is highly stressful, by selected characteristics, 2010

	Most days are 'quite' or 'extremely' stressful		Most days are 'quite' or 'extremely' stressful
	percentage		percentage
Sex			
Men†	36	Class of worker	
Women	38	Paid employee†	36
Age group			
20 to 29 years†	31	Self-employed	41*
30 to 39 years	39*	Education	
40 to 49 years	38*	Less than high school	36
50 to 64 years	38*	Secondary school†	36
Marital status			
Married†	36	Some postsecondary	35
Common-law union	44*	College diploma, trade or vocational certificate	38
Widowed	F	University degree	37
Divorced or separated	44*	Household income	
Single (never-married)	33	Less than \$40,000†	42
Children in the household			
None†	35	\$40,000 to \$59,999	33*
One or two children	39*	\$60,000 to \$79,999	34*
Three or more children	40	\$80,000 to \$99,999	39
Household type			
Couple with children†	39	\$100,000 or more	38
Couple only	36	Not stated, do not know	36
Unattached individual	40	Immigrant status	
Lone parent	42	Born in Canada†	36
All other arrangements	32*	Immigrated to Canada before 1980	31
Place of residence			
Census metropolitan area (CMA)†	38	Immigrated to Canada between 1980 and 1995	47*
Census agglomeration (CA)	35	Immigrated to Canada between 1996 and 2010	39
Outside CMA or CA	34*	Visible minority status	
Occupation			
Management	46*	Visible minority	37
Professional	38*	Non-visible minority†	40
Technical	37	Physical health	
Clerical	39*	Excellent†	32
Sales and services	34	Very good	31
Blue-collar†	33	Good	40*
		Fair to poor	49*
		Mental health	
		Excellent†	27
		Very good	31
		Good	42*
		Fair to poor	62*

† reference group

* significantly different from reference group at $p < 0.05$

Source: Statistics Canada, General Social Survey, 2010.

Table 2 Selected characteristics of employed adults aged 20 to 64 reporting higher levels of stress, by main source of stress, 2010

	Main source of stress				
	Work†	Finances	Not enough time	Family	Personal and other
percentage of highly stressed workers					
Sex					
Men	55	63	52	33*	45
Women	45	37	48	67*	55
Age group					
20 to 34 years	29	23	24	21 ^E	26 ^E
35 to 49 years	43	51	48	44	49
50 to 64 years	28	26	29	35	25 ^E
Lives with spouse or partner					
Children in the household					
None	51	35*	26*	38*	56*
One or two children	41	51*	59*	49	39
Three or more children	8	14 ^E	14 ^E	F	F
Household type					
Couple with children	43	52*	55*	48	38
Couple only	29	11 ^{E*}	16 ^{E*}	16 ^{E*}	22 ^E
Unattached individual	9	7 ^E	6 ^{E*}	7 ^E	10 ^E
Lone parent	4	8 ^{E*}	F	F	F
All other arrangements	16	20 ^E	17 ^E	22 ^E	F
Lives in a census metropolitan area (CMA)					
Occupation					
White-collar	53	29*	45	43	46
Pink-collar	31	39	33	39	38
Blue-collar	16	32*	22 ^E	18 ^E	F
Postsecondary education					
Less than postsecondary completion	27	46*	26	38*	38
College diploma, trade or vocational certificate	35	37	38	29	17 ^{E*}
University degree	38	17 ^{E*}	36	33	45
Household income					
Less than \$60,000	17	40*	20	25	25 ^E
\$60,000 to \$99,999	25	25	24	28	27 ^E
\$100,000 or more	45	18 ^{E*}	43	34*	33 ^{E*}
Not stated, do not know	12	16 ^E	13 ^E	13 ^E	F
Paid employee					
Born in Canada or immigrated to Canada prior to 1980					
Non-visible minority					
	84	75*	84	88	81
	87	72*	84	77*	76
	88	73*	87	79	79

† reference group

* significantly different from reference group at $p < 0.05$

Source: Statistics Canada, General Social Survey, 2010.

Taking stress to work

In June 2011, the federal government announced that it would provide funding to the Canadian Mental Health Commission to help develop new voluntary standards to safeguard psychological health and safety in the workplace.¹ The action is part of an ongoing response to the prevalence of depression and anxiety reported by Canadian workers.

Mental health is highly correlated to chronic stress. Numerous studies link chronic stress to anxiety, depression, insomnia, fatigue and substance abuse.² Chronic stress can cause memory loss³ and can change the brain's structure and functioning, affecting a person's susceptibility to depression and the effects of aging.⁴ Long-term stress is also highly correlated with the development and progression of many chronic physical diseases,⁵ such as heart disease,⁶ arthritis, ulcers, asthma and migraine.⁷

Work-related stress has been the focus of much of the public discussion about chronic stress and mental health. Numerous studies have identified some of its key causes—including having little control over the terms and conditions of the work one is doing, occupying a job that does not match one's skills and abilities (either too demanding or not demanding enough), and having insufficient support from supervisors and/or colleagues.⁸

Of course, other issues can just as easily cause stress. Most commonly discussed in the context of public policy is the stress related to 'work-life balance'—the conflict that can arise between an individual's work and family responsibilities, especially among people trying to meet high expectations in both domains.⁹

Other issues have nothing to do directly with a worker's job situation, but can nevertheless affect the workplace. Unhappy relationships can be linked to high levels of stress,¹⁰ while the demands of parenting (especially young children) produce high levels of chronic stress in some families.¹¹ More emotionally perceptive people seem to be at greater risk for deteriorating mental health if they are exposed to ongoing stress.¹² Women, especially young women, generally experience more stress related to relationships, illness and social networks than men of the same age, although all types of stress increase the likelihood of anxiety and depression for both women and men.¹³ Recent research suggests that

depression can be 'transmitted' from one person to another within a social network,¹⁴ and that people living in cities are more sensitive to the negative effects of stress than those living in rural areas.¹⁵

1. Human Resources and Skills Development Canada. June 16, 2011. "The Government of Canada is taking action to support mental health in the workplace."
2. See, for example, Godin, I., F. Kittel, Y. Coppieters and J. Siegrist. 2005. "A prospective study of cumulative job stress in relation to mental health." *BMC Public Health*. Vol. 5, no. 67; and Wilkins, K. and M.-P. Beaudet. 1998. "Work stress and health." *Health Reports*. Statistics Canada Catalogue no. 82-003. Vol. 10, no. 3.
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Workers anxious about finances have less skilled jobs and lower incomes

Working adults whose high level of stress was mainly due to financial concerns were much less likely than the work-stressed to have a postsecondary education (54%). Almost 4 in 10 had a pink-collar job working in sales or services; only 29% were employed in white-collar occupations. They had a much higher probability of being self-employed (25%) and were twice as likely to have a household income below \$60,000 (40%). All these factors may contribute to understanding why they were worried about money.

The highly financially-stressed were also significantly different than the work-stressed across several socio-demographic dimensions. A much larger proportion of them (65%) had children at home, they were more likely to be members of a visible minority group (27%) and to have immigrated to Canada within the last 30 years (28%).

Workers without enough time have children at home

Highly stressed workers without enough time were much more likely than the work-stressed to live with their spouse and children (55%). In most other respects, though, the time-stressed were not significantly different from the work-stressed, that is, they were well-educated and tended to have higher incomes. They generally held white-collar jobs and most had been born in Canada or immigrated here before 1980 (Table 2).

Most workers stressed about family matters are women

Two-thirds of highly stressed workers who identified family as their main source of stress were women. Compared to the work-stressed, workers who were most stressed about family issues were more likely to have children at home (62%). They were also more likely to report household income under

\$100,000 (53%), to have less than postsecondary education (38%) and to be immigrants who had settled in Canada in the 30 years preceding the survey.

Workers highly stressed for personal reasons are much the same as the work-stressed

Workers who attributed their stress to personal and other reasons were concerned about a wide array of issues, including health, relationship problems, isolation, the pressure of fulfilling obligations and responsibilities, and general unspecified worry and anxiety. The socio-demographic characteristics of this group of workers is different from the work-stressed only in that they were more likely to live without children (56%) and less likely to have income of \$100,000 or more (Table 2).

Summary

The prevalence of stress reported by Canadian workers is of interest to both employers and governments. Research shows that stress-related physical and mental health issues cost employers billions in claims and lost productivity poses challenges for the health care system, and cause distress to workers and their families.

In Canada, in 2010, 27% of working adults reported that, on most days, their lives were 'quite' or 'extremely' stressful. Workers had higher odds of being highly stressed if they described their physical or mental health as not very good; if they had management, professional or clerical jobs; if they were living common-law or were divorced; or if they were immigrants who had arrived in Canada between 1980 and 1995.

Over 6 in 10 highly stressed workers identified work as the main source of their stress; these people were generally well-educated, employed in white-collar occupations, and reported high household incomes. Less common sources of stress were financial concerns, not having enough time, family, and personal and other issues.

Workers' demographic and socio-economic characteristics differed marginally depending on the source of their stress. For example, compared to workers who were highly stressed about work, those who were stressed about their finances were less educated and much less likely to have white-collar jobs; those worried about not having enough time were much more likely to be parents with children at home; family-stressed workers were about 1.5 times more likely to be women; and those worried about personal issues were less likely to be living with children.



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Table A.1 Odds of reporting high levels of stress compared to less stress, employed adults 20 to 64, 2010

	odds ratios		odds ratios
Sex		Occupation	
Male†	1.00	Management	1.89*
Female	0.99	Professional	1.27*
Age group		Technical	1.45
20 to 29 years†	1.00	Clerical	1.44*
30 to 39 years	1.31	Sales and services	1.15
40 to 49 years	1.23	Trades and occupations unique to primary industries and manufacturing†	1.00
50 to 64 years	1.35	Class of worker	
Marital status		Paid employee†	1.00
Married†	1.00	Self-employed	1.23
Common-law union	1.54*	Education	
Widowed	1.24	Less than postsecondary completion†	1.00
Divorced or separated	1.50*	College diploma, trade or vocational certificate	1.04
Single (never-married)	1.06	University degree	0.95
Children in the household		Household income	
None†	1.00	Less than \$40,000†	1.00
One or two children	1.13	\$40,000 to \$59,999	0.75
Three or more children	1.30	\$60,000 to \$79,999	0.79
Place of residence		\$80,000 to \$99,999	1.03
Census metropolitan area (CMA)†	1.00	\$100,000 or more	1.06
Census agglomeration (CA)	0.90	Physical health	
Outside CMA or CA	0.88	Very good to excellent†	1.00
Immigrant status		Good	1.24*
Born in Canada†	1.00	Fair to poor	1.23
Immigrated before 1980	0.61*	Mental health	
Immigrated 1980 to 1995	1.48*	Very good to excellent†	1.00
Immigrated 1996 to 2010	1.16	Good	1.67*
		Fair to poor	3.70*

† reference group

* significantly different from reference group at $p < 0.05$

Source: Statistics Canada, General Social Survey, 2010.