Does the Increase in Available Time Associated with Retirement Lead to Greater Investments in Health?

By Mark Patterson

(5227685)

Major Paper presented to the Department of Economics of the University of Ottawa

in partial fulfillment of the requirements of the M.A. Degree

Supervisor: Professor Catherine Deri-Armstrong

ECO 6999

Ottawa, Ontario

August 26, 2014

Table of Contents

Acknowledgements 2
Abstract 3
Section 1: Introduction 4
Section 2: Literature Review 7
2.1 Retirement and Health: An International Perspective 8
2.2 Retirement and Health: A Canadian Perspective 10
2.3 Retirement and Time Use 10
Section 3: Data 12
3.1 Dependent Variables 13
3.2 Independent Variables 16
Section 4: Methodology 17
Section 5: Results & Discussion 22
Section 6: Conclusion 29
Section 7: References 31
Section 8: Tables 34
Section 9: Appendix 46

Acknowledgements

I would like to thank my supervisor Professor Catherine Deri-Armstrong for her patience, guidance, and feedback. Many thanks are also due to the second reader of my paper for their input and to Susan Mowers for her assistance with my data retrieval. Finally, I wish to thank my family and friends for their continued support and encouragement throughout my Master's degree.

Abstract

This study investigates the effects of retirement on an individual's allocation of time to time-intensive, health-enhancing activities. The empirical analysis employs data from three waves of Statistics Canada's General Social Survey (GSS) on time use (1992, 1998, and 2005). To account for the potential endogeneity of retirement status, an instrumental variable approach is used. The results indicate that retirement leads to an increase in the amount of time allocated towards many health-enhancing activities for both women and men. In addition, the results suggest that women invest significantly more time into time-intensive health-enhancing activities compared to men.

Section 1: Introduction

Canada, like other developed countries, will soon experience a significant demographic transition as the baby boomer generation enters the 'later years'. This change, in addition to increased life expectancy, presents many concerns for Canadian policy makers. One such concern is the fiscal implication of the retiring baby boomers on the pension system. Over the next 20 years, the number of people turning 65 will increase dramatically; it is expected that by 2030, the number of basic Old Age Security (OAS) pension recipients will reach 9.3 million, up from 4.7 million in 2010 (OSFIC, 2011). This drastic increase in pensioners will place significant strain on Canada's retirement system, potentially threatening its sustainability. In order to alleviate this huge fiscal challenge, Canada has instituted a reform on the OAS and the Guaranteed Income Supplement (GIS) programs which postpones the retirement of Canadians by progressively increasing the eligibility age from 65 to 67. A second concern is the fiscal implication on the healthcare system. Generally, seniors are frequent users of health care services; the system spends more on them than on any other segment of the population. In 2009, provincial and territorial governments health spending (per capita) reached $11,196 for Canadians aged 65 and older, compared to $2,494 for adults aged 20 to 64 (CIHI, 2011). An aging baby boomer generation is expected to exacerbate this trend, increasing overall health care expenditures. The OECD expects Canada's public health and long-term care spending to reach 10.2-14.6% of GDP by 2060, up from an average of 7.1% of GDP between 2006 and 2010 (OECD, 2013). Consequently, population aging in Canada is a multifaceted issue, attracting substantial attention from policy makers.

In order to anticipate the implications of this demographic shift, it is important for policy makers to better understand the relationship between health and retirement. Specifically, it is crucial to understand how retirement affects various dimensions of health (e.g. physical and mental). Theoretically, the expected effect of retirement on overall health is ambiguous; retirement can potentially improve or worsen one's general health relative to non-retirees, depending on the lifestyle changes associated with exiting the labour force. An improvement may occur as the opportunity cost of time decreases: retirees may allocate more time to health-enhancing activities, such as frequent physical exercise, healthier eating habits, increased sleep, preventative healthcare utilization, etc. Retirement may also allow individuals to pursue personal interests and meaningful activities previously restricted by the demands of their work

lives. An improvement in health status may also occur if retirement reduces exposure to health-deteriorating factors: it may eliminate work-related stress and pressure, as well as strenuous physical demands and work hazards associated with certain occupations. In contrast, retirement also has the potential to worsen one's health. Permanently leaving the labour force is a major life change and a stressful milestone that can be associated with health deteriorating factors; retirees may lose an important source of income, a beneficial source of physical exercise, important social networks, and their sense of purpose. Evidently, the effects of retirement on health are unclear.

Both positive and negative changes to health due to retirement will have fiscal implications. If retirement harms health status, policies that delay retirement, such as those emerging in developed countries like Canada, may provide savings for the government. If retirement is beneficial to health status, policies that delay retirement may attenuate the cost savings from delaying pension distribution. Therefore, understanding the relationship between retirement and health is essential to making informed policy decisions.

From a researcher's perspective, it is important to acknowledge the endogeneity issue of an individual's retirement status in the context of health. Retirement is endogenously related to health status due to simultaneity (reverse causality); an individual's decision to retire may affect their health status, while their health status may influence their decision to retire. In the presence of reverse causality, the OLS coefficient estimate for retirement status in a regression estimating the effect of retirement on health status will be biased since the retirement status will be correlated with the error term. This can be shown with the following simplistic example:

$$Equation\ 1: RetireStat = \beta_0 + \beta_1 HealthStat + \varepsilon$$

$$Equation\ 2: HealthStat = \alpha_0 + \alpha_1 RetireStat + v$$

If υ changes, the health status (HealthStat) of an individual will change via equation 2. Changes in the health status in equation 2 will affect health status in equation 1 and subsequently retirement status (RetireStat) in equation 1. This leads retirement status to be correlated with υ via equation 2. This implies that $cov(RetireStat, v) \neq 0$ and as a result,

$$Equation\ 3: \hat{\alpha}_1 = \alpha_1 + \frac{cov(RetireStat, v)}{var(RetireStat)}$$

Consequently, the OLS coefficient estimate of the effect of retirement status on health status will be biased if one estimates equation #2. This result holds as long as there are no other independent variables in equation #2. If a positive change in υ leads to a higher level of health, which in turn leads to a decrease in the probability of being retired (based on evidence from the retirement literature), then the cov(RetireStat, υ) will be negative, which will bias the estimator towards zero (assuming better health is represented by higher values of health status). Most of the literature cited in this paper deals with the endogeneity issue of retirement status.

The academic literature exploring the effects of retirement on health is limited and inconclusive. Most of the research focuses on the effects of health status on retirement decisions, examining the opposite direction of causality.[1] The few that do investigate the impact of retirement on health find conflicting evidence; some papers suggest positive effects, while others point to negative or even absent effects. Some divergence in the findings may be attributed to differences in methodologies. For example, Bound and Waidman (2007) use the regression discontinuity method with the English Longitudinal Study of Aging (ELSA) and find no evidence of negative health effects of retirement.[2] Behncke (2012) also employs the ELSA, uses age-specific financial incentives as an instrument for retirement, and finds that the risk of being diagnosed with a chronic condition increases with retirement. Part of the divergence may also be attributed to the measurement and dimensions of health. For example, recent Canadian research based on the National Population Health Survey (NPHS) (Latif 2011; Latif 2012; Latif 2013) finds that retirement has a significant positive effect on psychological well-being, a non-significant positive impact on self-reported health status, and a non-significant negative impact on mental

[1] Dwyer and Mitchell (1998), Kerkhofs *et al.* (1999), McGarry (2004), and Disney *et al.* (2006) are a few examples of studies investigating the impact of health on retirement. Dwyer and Mitchell (1998) find that poor health induces early retirement, particularly for men. Kerkhofs *et al.* (1999) find that bad health increases the probability of retirement. McGarry (2004) finds that poor health has a large and significant effect on labour market attachment. Disney *et al.* (2006) find that past and present health shocks are positively correlated with transitions into inactivity.

[2] A regression discontinuity design (RDD) is used to estimate the average effect of a treatment/intervention that is assigned at a threshold when randomization is not possible and can be used to identify the causal impact of retirement on health for three reasons. First, the probability of retiring increases substantially as one reaches the age thresholds of 60 (for women) and 65 (for men) due to financial incentives provided by the UK's state pension system. Second, age (the running variable) is continuous and well measured. Finally, it is very unlikely that an individual's health drastically changes (for better or for worse) once they reach the age of 60 (for women) or 65 (for men).

health using the same instrumental variable fixed effects method across the three papers.[3] In this paper, I investigate the effects of retirement on an individual's allocation of time to time-intensive health-enhancing activities to further our understanding of these seemingly inconsistent findings in these papers.

Understanding how people spend their time once they retire is essential to predicting changes in health status and can be accomplished using time use data. Surprisingly, little research has focused on retirement and time use. While some researchers have studied time use trends of older individuals (Gauthier and Smeeding 2003; Dosman *et al.* 2006; Stober *et al.* 2006; Brzozowski and Lu 2010), to best of my knowledge, none have attempted to directly examine the impact of retirement on one's investment in time-intensive health-enhancing activities using econometric techniques to address the endogeneity of the retirement decision and time use data.

Using Canadian GSS time use data, this study finds that retirement leads to an increase in the amount of time allocated towards many health-enhancing activities for both women and men. This research contributes to the literature on retirement and health in a number of ways. First, it bridges the retirement and health literature with the time use literature. Second, it examines the issue from a Canadian perspective using data from Statistics Canada's General Social Surveys (GSS) on time use. Third, it uses an instrumental variable technique in order to address the possible problem of endogeneity of one's retirement status and the investment in health-enhancing activities.

Section 2: Literature Review

The academic literature concerning the effects of retirement on health shows little consensus; international as well as Canadian literature provide heterogeneous findings. In addition, research on retirement and time use is limited. This literature review is organized into three sections. The

[3] One possible explanation for the contradictory results from Latif (2011) and Latif (2013) may be the difference in the reference periods of the dependent variables. In order to measure psychological well-being, Latif (2011) uses the respondent's answer to a question about their general day-to-day happiness. In contrast, Latif (2013) uses the short-form depression scale as the dependent variable which is constructed based on a variety of questions referring to the last 7 days. It is possible that if individuals view recent events (i.e. within the last 7 days) more negatively than past events (i.e. within the past month(s)), this may lead to different and contradictory results for seemingly similar dependent variables.

first section summarises international research on retirement and health, while the second section presents Canadian literature on the topic. The third and final section overviews the literature on retirement and time use.

2.1 Retirement and Health: An International Perspective

The international literature focuses primarily on selected foreign regions, employs a variety of methodologies, and presents a spectrum of findings on the impact of retirement on health.

The ambiguous effect of retirement on health can be traced to Grossman (1972), one of the two theoretical papers consulted in this study. Grossman conceptualizes an individual's demand for health capital by combining the household production model of consumer behaviour with the theory of human capital investment. According to the model, individuals demand health for two reasons. First, health has consumption properties as individuals can derive utility from enjoying healthy days. Second, health has investment properties, as good health reduces the number of productive days lost due to sickness, thus increasing earnings. Prior to retirement, individuals invest in their health to maintain or increase productivity due to the dominance of the investment property of health. Once retired, investments in labour market productivity are fruitless. Therefore, this perspective predicts a decline in health. However, health remains a consumption good, and an individual may continue to invest in their health to derive greater utility. Consequently, the effect of retirement on health remains ambiguous and depends on the relative importance of health as an investment and/or consumption good.

Multiple empirical studies have used British data. Bound and Waidman (2007) estimate the health effects of retirement using the English Longitudinal Study of Aging (ELSA) and the UK vital statistics. They test key retirement ages in the UK pension system as thresholds for regression discontinuity and find no evidence of negative health effects of retirement, and some evidence of a positive effect for men. Johnston and Lee (2009) use the Health Survey for England (HSE), an annual cross-sectional survey, to estimate the impact of retirement on various measures of health. To identify the causal effect, the authors pool data from surveys between 1997 and 2005 and employ a regression discontinuity design. The study finds that one's sense of well-being and mental health improves with retirement, while physical health does not. Behncke (2012) examines the effect of retirement on health in the UK using the first three waves of the ELSA. This study differs from Bound and Waidman (2007) primarily in the empirical strategy

used to overcome the problem of endogeneity. Behncke employs an instrumental variable technique which includes key retirement ages as instruments for retirement. She finds that retirement increases the risk of being diagnosed with a chronic condition such as cardiovascular disease and cancer.

Other empirical studies have employed American data. Midanik *et al.* (1995) assess the short-term effects of retirement on mental health and health behaviours using mailed questionnaires completed by members of the Northern California Kaiser Permanente Medical Care Program. The authors find that retirees have lower stress levels and engage more frequently in regular exercise. However, no significant difference appeared between groups on self-reported mental health status, depression, coping, smoking, alcohol consumption, and frequency of drunkenness. This study fails to address the problem of reverse causality between retirement status and health.

Mandal and Roe (2008) estimate the impact of job loss and retirement on the mental health of older Americans using longitudinal data from the Health and Retirement Study (HRS). The authors employ a first-difference model to overcome the problem of unobservable time-invariant heterogeneity and exploit the variation in the unemployment rate across census divisions as an instrument for labour-market status to overcome reverse causality. This study finds that retirement improves the mental health of older Americans, and that returning to the labour force is psychologically beneficial for retirees.

Dave *et al.* (2008) use multiple waves of the HRS in order to analyze the effects of full retirement on physical and mental health outcomes. Their results indicate that retirement has a negative effect on health for the average individual over an average post-retirement period of six years. Subsequent research criticized the panel data methodology employed as it does not fully resolve the problem of endogeneity between health and retirement, potentially leading to biased estimates.

Newman (2008) uses multiple waves of longitudinal data from the HRS to examine the impact of retirement on health in the United States. To avoid producing biased estimates due to the endogeneity of retirement, the author utilizes exogenous variation in public and private pensions as an instrument for retirement. His findings suggest that retirement preserves and possibly improves the health of retired men and women.

Finally, some studies have employed European data. Coe and Zamarro (2011) employ the Survey for Health, Ageing, and Retirement in Europe (SHARE) to investigate the impact of retirement on health. They exploit discontinuities in the timing of retirement across countries due to the variation of statutory retirement ages in national social security schemes. Using the 2004 wave of the survey, the authors find evidence that retirement has a preserving effect on overall health.

2.2 Retirement and Health: A Canadian Perspective

Canadian research has yielded inconclusive results, suggesting that retirement may impact various dimensions of health in different ways.

Latif (2011) investigates the effect of retirement on psychological well-being using seven waves of longitudinal data from the National Population Health Survey (NPHS) between 1994 and 2006. To address endogeneity, the author employs an instrumental variable fixed effect method that uses age-specific retirement incentives provided by Canada's Income Security System as instruments. The study finds that retirement has a significant positive effect on individual's psychological well-being. Latif (2012) estimates the impact of retirement on general health outcomes in Canada. Using self-reported health status from seven waves of the NPHS, Latif employs an individual fixed effects model with instrumental variables and finds that retirement has a positive but statistically insignificant effect on self-reported health status. Latif (2013) estimates the impact of retirement on mental health in Canada using multiple waves of the NPHS. Using a similar methodology to Latif (2011; 2012), the author finds that retirement has an insignificant impact on depression, but the magnitude of the effect remains large which is economically meaningful; this result suggest that retirement may have a negative impact on mental health.

2.3 Retirement and Time Use

The retirement and time use literature is quite limited, fails to control for important socio-economic characteristics, neglects to focus on time-intensive, health-enhancing activities, relies on basic statistical and descriptive analysis, and/or limits the analysis to single waves of time use surveys (particularly Canadian studies).

Becker (1965) develops a general framework for the allocation of time in all other non-work activities. In this classic model, households are producers as well as consumers; consumption is an output of home production that incorporates expenditure and time as inputs in accordance with the cost-minimisation rules contained in the traditional theory of the firm. The model predicts that the household will consume commodities that are produced with fewer market-purchased inputs and more of household members' own time when the individual is retired since time becomes less constrained and the opportunity cost of time decreases. If health is a consumption good from which individuals derive utility (Grossman, 1972), retirement may stimulate investment in health, as many health-enhancing activities are time-intensive.

Gauthier and Smeeding (2003) analyze and describe the time use patterns of older individuals across nine countries including Canada. The authors rely on diaries collected from time use surveys carried out between 1987 and 1992 and restrict their analysis to patterns of time use by gender and age. They find significant national differences in the time use patterns of older adults. This study also finds that a large fraction of time that was once allocated to paid work is reallocated to passive activities (watching TV, listening to the radio, relaxing, eating, bathing, dressing, etc) as an individual ages. The researchers do not control for other socio-economic characteristics other than gender and age, presenting a major weakness of this study. In addition, the study only performs a descriptive analysis with a simple comparison of means.

Stober *et al.* (2006) investigate the time use patterns of older Canadians using time use data from Statistics Canada's 2005 General Social Survey. Using simple statistical analysis such as ANOVA, the authors find that the time use patterns of older Canadians has shifted; older Canadians spend more time in the labour force than they did in previous waves of the survey (1992 and 1998) and remain engaged in multiple activities later in life. They also find that one's health in old age affects how they allocate their time; less healthy men and women spend more time in passive leisure. This study only consists of a descriptive analysis due to its use of ANOVA to compare group means. In addition, its aim is not to determine the causal effect of retirement on time allocation and health-enhancing behaviours.

Dosman *et al.* (2006) examine the productive activities of still-employed and no-longer-employed mid-life and older adults. In order to accomplish this objective, Ordinary Least Squares (OLS) regressions as well as Tobit Models (Type I) are estimated. The authors include

retirement status and age as key independent variables, as well as other socio-economic variables such as education and marital status. Using data from Statistics Canada's 1998 General Social Survey (GSS) on time use, they find that individuals remain engaged in productive activities even as they retire, replacing paid work with unpaid work such as volunteer work or household work. Their study does not focus primarily on health-enhancing activities, and only examines one cycle of the GSS.

Brzozowski and Lu (2010) examine the effect of retirement on food expenditure, production, and consumption. The authors use the 1996 Canadian Food Expenditure Survey and the Canadian Nutrient File as well as the 1998 General Social Survey on time use. An important result of this study is that retired households replace food purchased for consumption away from home with food purchased for consumption at home. In addition, the time use survey indicates that retired individuals devote more time to food preparation. The focus of this study is relatively narrow and only examines one cycle of the GSS.

Section 3: Data

This study uses Canadian data from the General Social Survey (GSS) available through Public Use Microdata files. The GSS collects data over time on social trends, monitoring changes in the living conditions and well-being of Canadians. This data can be used to provide information on current and emerging social policy issues. The time use component monitors time use patterns and is the focus of this paper. In order to collect information on time use, respondents are asked to complete a time use diary which provides detailed information on the activities of a respondent during a 24-hour period, beginning at 4 AM.

The GSS Time Use Survey is cross-sectional and covers non-institutionalized individuals' aged 15 years or older living in Canada's ten provinces. It excludes full-time residents of institutions as well as residents of the Yukon, Northwest Territories, and Nunavut. There are currently five waves of the time use survey available from Statistics Canada (1986, 1992, 1998, 2005, and 2010). Due to issues in the comparability of variables between waves, only cycles from 1992,

1998, and 2005 are used in this paper.[4] The sample of males and females is restricted to individuals aged 45 or older. In total, there are 13,632 observations; 7,886 from 2005, 3,518 from 1998, and 2,228 from 1992. In 1992, respondents were not required to complete the entire survey in order to reduce the burden on respondents. Consequently, only 2,228 respondents aged 45 and older, and either working or retired completed the entire questionnaire. This presents a first limitation of this study given that the 1992 sample of respondents for the entire questionnaire may no longer be random.

3.1 Dependent Variables

In order to assess the effect of retirement on time-intensive health-enhancing activities, multiple dependent variables are used in this study. The eight key variables chosen are the amount of time devoted to 1) sleep, 2) exercise, 3) meal preparation, 4) medical care, 5) reading, 6) socializing, 7) volunteering, and 8) attending religious services. The reasons for selecting these dependent variables are described below.

The quantity and quality of one's sleep can influence health. Studies have shown that sleep and health share an important link. For example, Jiddou *et al.* (2013) find that a shift to Daylight-savings time (losing one hour of sleep) is associated with a temporary increase in the risk of an acute myocardial infarction (AMI). Therefore, this paper includes the amount of time allocated to sleep as a dependent variable. It is measured as the total duration (in minutes) for night's sleep/essential sleep.

Physical exercise is also linked to health. It is well known that regular physical exercise is beneficial for one's physical health. Research has also shown that physical exercise can also be

[4] This study excludes data cycles from 2010 and 1986 due to issues in the comparability of variables with the 2005, 1998, and 1992 cycles. The 2010 cycle is excluded for the following 3 reasons. First, the variable representing the month of the survey is not provided. Second, the READMDIA variable (time spent reading books and newspapers) includes online material in 2010, but does not in the previous cycles. Finally, Statistics Canada's user guides for the 2005, 1998, and 1992 cycles explicitly state that the dependent variables selected were constructed for their comparison; this is not the case for the 2010 cycle. The 1986 cycle was also excluded given that the questionnaire did not include a question regarding volunteering activity, the question regarding health was based on the respondent's level of satisfaction regarding their health rather than a self-reported health status, and that I was also unable to find a variable reporting if a respondent lived in a rural or urban area.

beneficial for mental health. Paluska and Schwenk (2000) suggest that aerobic exercise or strength training can significantly reduce symptoms of depression. Given the dual benefits of physical exercise, this study employs the amount of time an individual devotes to exercise as a dependent variable. It is measured as the total duration (in minutes) allocated to active sports.[5]

Nutrition is also an important determinant of health. Spending time preparing healthy meals rather than purchasing fast food can improve one's health. The GSS Time Use Survey collects the amount of time an individual spends preparing meals. Blaylock *et al.* (1999) find that time constraints play an important role in determining the quality of an individual's nutrition; in order to consume healthy food, time is required to obtain nutritional information, to purchase healthy foods, and to prepare healthy meals. This study examines the time devoted to the preparation of meals measured as the total duration (in minutes) dedicated to meal preparation.

Obtaining preventative or required medical care can also be beneficial towards health. Pinkhasov *et al.* (2010) find that low utilization of health services may be a contributing factor to the lower life expectancy of men in the United States. Accordingly, time spent obtaining medical care is examined in this study. This paper uses the total duration (in minutes) dedicated to adult medical and dental care, and having prescriptions filled.

Social relationships also have profound influences on our health. Research by Cohen (2004) suggests that social interactions may positively influence physical and mental health outcomes; social support and social integration can help eliminate or reduce stress, promote positive psychological states, provide health-related information, and motivate healthier lifestyles. Consequently, time spent socializing can be beneficial to our health. This paper uses two different measures of socializing; the total duration (in minutes) spent socializing in homes and the total duration (in minutes) spent for other socializing.

[5] Active sports include football, basketball, baseball, volleyball, hockey, soccer, field hockey, tennis, squash, racquetball, paddle ball, golf, miniature golf, swimming, waterskiing, skiing, ice skating, sledding, curling, snowboarding, bowling, pool, ping-pong, pinball, exercises, yoga, weightlifting, judo, boxing, wrestling, fencing, rowing, canoeing, kayaking, windsurfing, sailing (competitive), other sports, hunting, fishing, boating (motorboats and rowboats), camping, horseback riding, rodeo, jumping, dressage, other outdoor activities/excursions, walking, hiking, jogging, running, bicycling, and travel for active sports.

Reading is also believed to be beneficial for health. Reading is thought to contribute to better health by fostering mental stimulation and promoting health literacy. Landau *et al.* (2012) find that taking part in activities that promote cognitive stimulation, such as reading books and newspapers, helps reduce the risk of developing Alzheimer's disease. As a result, the amount of time spent reading is also included as a dependent variable and is measured as the total duration (in minutes) spent reading books and newspapers.[6]

Next, this study examines one's community involvement. Contributing to the community through volunteer work can be beneficial for one's health. Lum and Lightfoot (2004) find that volunteering can reduce the decline in self-reported health, decline functioning levels, and risk of depression associated with aging. In addition, it can also improve mortality rates. In this study, volunteering is represented as a dichotomous variable for which 1 indicates that the respondent performed unpaid volunteer work for any organization in the past 12 months and 0 if they did not. Due to the use of different reference periods for the question in the questionnaire, only data from 2005 and 1998 are used in the analysis of this variable.

Finally, research has also shown that religious involvement can also impact an individual's health outcomes. King *et al.* (2005) find that women who attend regular religious services had better mental health scores than those who did not. Therefore, I examine attendance to religious services for non-special occasions as the final dependent variable in this study. Attendance of a religious service is represented as a dichotomous variable for which 1 indicates that the respondent attended religious services or meetings (excluding special occasions such as weddings, funerals, or baptisms) at least once in the past 12 months, and 0 if they did not.

All of the dependent variables described above are considered time-intensive activities; performing these activities requires large sacrifices in available time (from the 24-hour time constraint in one day) relative to other activities. In other words, these activities have high opportunity costs (in terms of time) when an individual is working and have lower opportunity

[6] This does not include time spent reading online sources.

costs (in terms of time) when an individual retires. Therefore, they are used as dependent variables in this analysis. Next, the independent variables are presented and described.

3.2 Independent Variables

The GSS Time Use survey also contains a variety of socio-economic and demographic information. This study uses the following as independent variables: age, gender, marital status, retirement status, health status, highest level of education attained, household income, home ownership, urban versus rural residence, and the province of residence. These variables have been widely used in the retirement and health literature. Additional variables added to control for monthly as well as weekly variations in activities include the month of the respondent's interview and the day of the week associated with the diary day. Information regarding the month during which the interview took place is only available for 1998 and 1992, restricting the sample size used in the analysis when survey month dummies are included.

The derivation of an individual's retirement status deserves a careful explanation given the focus of this study. An individual's retirement status is derived from the respondent's main activity during the last 7 days. The answers provided by the respondents during the survey were organized into 8 categories: 1) Working at a paid job or business (includes vacation from paid work), 2) Looking for paid work, 3) Going to school, 4) Household work /caring for child, 5) Retired, 6) Other (includes Maternity/paternity leave, long-term illness and volunteering), 7) Not stated, and 8) Don't know. In this study, an individual is considered retired if they selected "5) Retired" (coded as RSTAT=1) and considered not retired if they selected "1) Working at a paid job or business (includes vacation from paid work)" (coded as RSTAT=0). All other individuals are dropped from the sample. This sample restriction isolates the effect of moving from (market) work to retirement. Unfortunately, this excludes individuals who perform essential non-market work such as homemakers or caregivers, who are more likely to be women given traditional gender roles, which limits the applicability and generalization of the results.

While many important independent variables are available in the survey, some information remains inaccessible. One potentially important independent variable that is not available in the survey is ethnic minority status. Research suggests that minority groups utilize health care

services differently than the general population. Cheung and Snowden (1990) find that certain minority groups under-utilize mental health services, while other minority groups over-utilize them. Given this heterogeneity among ethnic groups, the inability to control for this variation presents a limitation of this study. A second potentially important missing variable is the subjective rate of time preference. Fuchs (1980) finds that discount rates (proxies for the subjective rate of time preference), are weakly negatively correlated with health status. Johnston and Lee (2009) also note that investments in health and attachment to the labour force can be affected by individual discount rates. Consequently, the inability to control for the subjective rate of time preference presents another limitation of this study.

Summary statistics comparing retired and non-retired individuals are presented in Table 1. The table indicates that on average, retired men spend more time sleeping, exercising, obtaining medical care, preparing meals, socializing, and reading than do non-retired men. They are also more likely to attend religious services than are non-retired men. On average, retired women spend more time sleeping, exercising, receiving medical and dental care, preparing meals, socializing, and reading compared to non-retired women. Retired women are more likely to attend religious services, less likely to volunteer, and to spend less time on medical care at home than the non-retired.

Men tend to spend less time sleeping, more time exercising, less time receiving medical care, less time preparing meals, less time socializing in homes, and more time in other forms of socializing than do their female counterparts. Men are less likely to attend religious services and slightly less likely to volunteer than women.

Section 4: Methodology

This study begins by looking at correlates of time-intensive health-enhancing activities based on the following linear equation, and is estimated separately for men and women from the pooled data of three selected waves of the GSS time use survey (1992, 1998, and 2005):

Equation (4):

$$TIA_i = \beta_0 + \beta_1 RSTAT_i + \beta_2 AGE_i + \beta_3 AGE_i^2 + \sum_{j=4}^{7} \beta_j EDU_{j-3} + \sum_{k=8}^{10} \beta_k MSTAT_{k-7} + \sum_{l=11}^{15} \beta_l HSTAT_{l-10}$$
$$+ \sum_{m=16}^{26} \beta_m HI_{m-15} + \beta_{27} OWN_i + \beta_{28} UR_i + \sum_{n=29}^{38} \beta_n PROV_{n-28} + \sum_{o=39}^{50} \beta_o MON_{o-38} + \beta_{51} WD_i$$
$$+ \sum_{p=52}^{54} \beta_p Y_{p-51} + \varepsilon_i,$$

where TIA represents the time-intensive health-enhancing activities (time spent sleeping, exercising, preparing meals, receiving medical care, socializing in homes, on other socializing, reading; and volunteering and attending religious services); RSTAT is a dummy variable representing the retirement status of the respondent; AGE is a categorical variable that is treated as continuous; EDU represents a set of dummy variables representing the following categories of education levels attained: less than secondary, secondary graduate, some post-secondary education, or college/university graduate; MSTAT is a set of dummy variables describing the marital status of a respondent: single, married/common-law, or widowed/divorced/separated; HSTAT is a set of dummy variables presenting an individual's health status: poor, fair, good, very good, and excellent; HI is a set of dummy variables representing household income; OWN is dummy variable for which OWN=1 if a household member of the respondent owns the dwelling and 0 otherwise; UR is a dummy variable for which UR=1 if the respondent lives in an urban area and 0 otherwise; PROV represents a set of dummy variables for Canada's 10 provinces (excluding the three territories); MON represents a set of dummies representing the month when the respondent completed the time diary; WD is a dummy variable which equals 1 if the diary was completed for a weekday and 0 otherwise; and Y represents a set of dummies for the different cycles of the survey.

A slightly different approach is used for two of the time-intensive health-enhancing activities represented as dichotomous dependent variables. For religious attendance and volunteering, the estimates of a probit model, reporting marginal effects, are compared with those of a linear

probability model. Upon finding no significant difference between the key coefficients, IV models are estimated.

In order to avoid the dummy variable trap, one dummy variable is used as base category and omitted from the regression for every set of dummy variables. "Less than secondary" for education, "single" for marital status, "poor" for health status, "$60,000 to $80,000" for household income, "Ontario" for province of residence, "January" for the month of the diary day, "Weekend" for the day of the week, and "Y1992" for the survey cycle dummies are used as base categories.

One's decision to retire is influenced by a variety of factors. One determinant of an individual's retirement status is their health status. McGarry (2004) finds that poor health is strongly negatively correlated with labour force attachment, suggesting that healthier individuals remain in the labour force longer than those with poor health. A second determinant is wealth. Khitatrakun (2003) finds a negative relationship between wealth and the age of retirement; individuals with greater wealth tend to retire earlier. A third determinant of retirement is a spouse or partner's retirement status. Coile (2004) finds that individuals may decide to retire based on the retirement status of their spouse or partner due to complementarities in leisure (couples desire spending their retirement together). A fourth determinant is the subjective rate of time preference (represented by individual discount rates). Johnston and Lee (2009) note that attachment to the labour force can be affected by individual discount rates. This study includes measures for health status, household income, and home ownership (as a proxy for wealth) to control for these factors, while time preference and spouse's retirement status are not included due to a lack of availability.

To overcome the problem of reverse causality between health and retirement status, researchers have used various methods. One popular method is to use institutional variables, such as key retirement ages built into income security systems, as instrumental variables. In Canada, there are three such retirement ages; 60, 65, and 70. At the age of 60, an individual may apply for benefits from the CPP/QPP (Canada Pension Plan/Québec Pension Plan) based on lifetime earnings and subject to actuarial adjustment. At the age of 65, the OAS (Old Age Security)

pension becomes available to individuals who meet certain residency requirements. The GIS also becomes available to OAS pensioners. Age 70 is the maximum age at which an individual can apply for CPP/QPP. Therefore, ages 60, 65, and 70 present three key retirement ages used as instruments for the respondent's retirement status. Latif (2011; 2012; 2013) employs these instruments in his studies. This approach may help address the problem of endogeneity in the regression if the correlation between health status and time preference is minimal. To use this set of instruments, a two-stage least squares approach is used.

<u>First Stage:</u>

Equation (5):

$$RSTAT_i = \delta_0 + \overbrace{\delta_1(Age \geq 60) + \delta_2(Age \geq 65) + \delta_3(Age \geq 70)}^{identifying\ instruments} + \delta_4 AGE_i + \delta_5 AGE_i^2 + \sum_{j=6}^{9} \delta_j EDU_{j-5}$$
$$+ \sum_{k=10}^{12} \delta_k MSTAT_{k-9} + \sum_{l=13}^{17} \delta_l HSTAT_{l-12} + \sum_{m=18}^{28} \delta_m HI_{m-17} + \delta_{29} OWN_i + \delta_{30} UR_i$$
$$+ \sum_{n=31}^{40} \delta_n PROV_{n-30} + \sum_{o=41}^{52} \delta_o MON_{o-40} + \delta_{53} WD_i + \sum_{p=54}^{56} \delta_p Y_{p-53} + v_i$$

<u>Second Stage:</u>

Equation (6):

$$TIA_i = \beta_0 + \beta_1 \widehat{RSTAT} + \beta_2 AGE_i + \beta_3 AGE_i^2 + \sum_{j=4}^{7} \beta_j EDU_{j-3} + \sum_{k=8}^{10} \beta_k MSTAT_{k-7} + \sum_{l=11}^{15} \beta_l HSTAT_{l-10}$$
$$+ \sum_{m=16}^{26} \beta_m HI_{m-15} + \beta_{27} OWN_i + \beta_{28} UR_i + \sum_{n=29}^{38} \beta_n PROV_{n-28} + \sum_{o=39}^{50} \beta_o MON_{o-38} + \beta_{51} WD_i$$
$$+ \sum_{p=52}^{54} \beta_p Y_{p-51} + \varepsilon_i$$

An alternative instrument for retirement has been proposed by Newman (2008) based on research completed by Coile (2004). He proposes that a spouse's or partner's age can be used as

an instrument for retirement for the following reasons. First, an individual's decision to retire (and status) may be correlated with their spouse's retirement status due to complementarities of leisure and to the financial benefits received by the spouse at predetermined age thresholds in the retirement system, which contributes to household income. Second, it is unlikely that an individual's health is correlated with the birthday of their spouse. Therefore, it is thought that a spouse's age is a valid instrument given that it is correlated with an individual's retirement status and satisfies the exclusion restriction. This instrument is not directly employed in this study since the age of a respondent's spouse or partner is only available in the 1998 wave and would only be relevant for respondents with spouses or common-law partners, which would significantly reduce my sample size if employed.[7] Without this information, it is impossible to construct the key retirement age dummies as is done above.

The empirical analysis is organized in the following manner. First, two OLS regressions are estimated; one including the month dummies and one without. Then, the Ramsey Reset Test (a specification error test) is performed on both of these OLS regressions to determine the preferred specification. Next, two IV regressions are estimated using the three key retirement ages as instruments; one with the month dummies and one without. This is followed by a series of post-estimation diagnostics; the Wooldridge Score Test, which performs a test of endogeneity (to determine if retirement status is indeed endogenous), the first stage F-statistic (indicating the joint significance of the key retirement age instruments), and the Wooldridge's robust score test of over-identifying restrictions (testing the correlation of the instruments with the structural equation's error term). Finally, a Hausman specification test is performed to compare the OLS with the IV estimates.

[7] Using the age of a respondent's spouse as an instrument and limiting the sample to individuals who are married or common-law, yields different results for the retirement status coefficient estimates compared to the instrument constructed from the respondent's own age (Tables 25 and 26). For men, using the spouse/partner's age as the instrument yields a significant decrease in the first-stage F-statistics for both specifications (i.e. with and without month dummies), falling well below the rule of thumb threshold of 10. For women, there is a small increase in the F-statistics of both specifications. The coefficient estimates for retirement status remain statistically insignificant for both men and women, except for the case of volunteering, where the use of the spouse/partner's age as an instrument produces statistically significant estimates at the 5% level, and an increase in the magnitudes of the coefficients.

Section 5: Results & Discussion

This section presents the empirical results of this paper. First, the analysis begins with sleep as the dependent variable followed by exercise, meal preparation, medical care, socializing in homes, other socializing, and reading (Tables 2-8), respectively. The dependent variables of volunteering and religious attendance are treated afterwards (Tables 9-12).

It is important to note that this paper uses four diagnostic tests. First, Ramsey's (1969) regression specification-error test (RESET) for omitted variables is used as a specification test. This test fits the following regression:

Equation (7):

$$y_i = \boldsymbol{x_i b} + \boldsymbol{z_i t} + u_i,$$

where $\boldsymbol{z_i} = (\hat{y}_i^2, \hat{y}_i^3, \hat{y}_i^4)$, and performs a standard F-test of $\boldsymbol{t} = 0$. The null hypothesis of this test is that the model has no omitted variables. The remaining tests are performed on the IV regressions used in the analysis to assess the validity and appropriateness of the instruments. The second test is the Wooldridge's (1995) score test of exogeneity (WSTE), for which the null hypothesis is that the variables are exogenous. The third test is Wooldridge's (1995) robust score test of over-identifying restrictions (OVERID), for which the null is that the instruments are uncorrelated with the error term of the structural equation. Finally, Hausman's (1978) specification test is used to compare IV and OLS specifications; the null hypothesis of the test is that the difference in coefficients is not systematic.

For each of the eight dependent variables, two OLS regressions are considered and estimated; one without month dummies and the other with the dummies, and are compared using the RESET Test. The OLS specification with the largest p-value for the RESET test is selected as the best specification, and the following analysis (IV, diagnostic tests) focuses only on that one specification. The summary tables do, however, present the results for the two OLS and two IV regressions (with/without month dummies) for each dependent variable.

<u>Dependent Variable #1: Sleep</u>

For men, the OLS regression including the month dummies (Column 3 of Table 2) is preferred. The coefficient for retirement equals 26.06 and is statistically significant at the 1% level. Its p-

value, however, remains small, suggesting that a specification error continues to exist. Given the potential for endogeneity of the retirement status, key retirement ages are used as instruments to estimate an IV regression using two stage least squares estimation (2SLS). This reduces the magnitude of the coefficient and renders it statistically insignificant. While the OVERID test and the first stage F-statistic suggest the validity of the instruments, the WSTE fails to reject the exogeneity of retirement, and the Hausman test indicates that the OLS specification is preferred over IV. Consequently, retirement is believed to increase the amount of time a man spends sleeping on average by 26.06 minutes per day.

Similarly, for women, the OLS specification (Column 7 of Table 2) including month dummies is preferred, and OLS is preferred over IV. Therefore, the results suggest that retirement increases sleep on average by 18.18 minutes for women. This analysis suggests that retirement has a statistically significant impact on the amount of time devoted to sleep.

Dependent Variable #2: Exercise

For men, the OLS regression including month dummies is preferred given its higher p-value on the RESET test. The selected OLS model produces a coefficient for retirement status equal to 22.85 (Column 3 of Table 3) that is statistically significant at the 1% level. Using a 2SLS approach, the IV regression including month dummies is estimated and produces a statically insignificant coefficient equal to 13.89. The instruments appear to be valid given the large first-stage F-statistic and the failure of the OVERID test to reject the null at conventional levels. However, the WSTE fails to reject the null, and the negative χ^2 statistic produced by the Hausman test is evidence that the test fails to reject the null (i.e. the difference in OLS and IV coefficients are not systematic) (StataCorp LP, 2013).[8] This suggests that the OLS specification is preferred over the IV. Therefore, the analysis indicates that, on average, retirement increases the amount of time allocated to exercise by 22.85 minutes for men.

For women, the OLS specification excluding the month dummies (Column 6 of Table 3) is preferred given its larger p-value on the RESET test. Tests statistics indicate that key retirement

[8] In certain cases, the Hausman test can produce a negative χ^2 statistic due to estimated parameter variance differences that are not positive semi-definite (Schreiber, 2008). This is often the cause in situations with small samples (StataCorp LP, 2013).

ages are valid instruments, but that retirement may be exogenous. The Hausman test also indicates that OLS without month dummies is preferred over IV without month dummies. Therefore, the analysis suggests that for women, retirement has a highly statistically significant positive effect on time allocate to exercise. In this case, retirement leads to an increase of 23.71 minutes on average.

Dependent Variable #3: Meal Preparation

For men, the OLS regression excluding month dummies is the preferred specification given its larger p-value on the RESET test. The coefficient of retirement status is small (5.55 in Column 2 of Table 4) and statistically significant at all conventional levels. The 2SLS approach yields a small, negative, and statistically insignificant coefficient for retirement status (Column 4 of Table 4). Diagnostic tests indicate that the instruments are valid (large p-value for the OVERID test and large F-statistic), but also that retirement status may be exogenous given the WSTE's failure to reject the null at all levels of significance. The Hausman test also suggests that OLS is preferred over IV. Given these results, it appears that retirement has a small, positive, and statistically significant impact on the average time devoted to meal preparation.

Similarly, for women, the OLS specification excluding month dummies is preferred (Column 6 of Table 4), and OLS is preferred over IV. Therefore, the results suggest that retirement increases the amount of time allocated to meal preparation on average by 8.32 minutes for women. This analysis suggests that retirement has a small statistically significant impact on the amount of time devoted to meal preparation.

Dependent Variable #4: Medical Care

For men, the OLS specification including month dummies is preferred over its counterpart (Column 3 of Table 5). The coefficient for retirement status is small (0.39), positive, and statistically insignificant. When IV is used, the coefficient of retirement status remains small and statistically insignificant. Given these results, it appears that retirement has a very small, positive, and statistically insignificant effect on time devoted to medical care. This can be interpreted as having no effect for men.

For women, the OLS specification excluding month dummies is preferred given its larger p-value in the RESET test (Column 6 of Table 5). The coefficient for retirement status is small, positive, and statistically insignificant at the 10% level. Using a 2SLS approach yields a small, positive and statistically significant (at the 10%) coefficient for retirement status. The large first stage F-statistic and large p-value for the OVERID suggest that the instruments are valid, while the WSTE rejects the null at the 5% and 10% levels, suggesting that retirement status is endogenous. The Hausman test does indicate that OLS is preferred over IV, however, all other tests presented in the table point to the apparent superiority of the IV estimate. Therefore, this analysis suggests that retirement has a small, positive, and statistically significant impact (at the 10% level) on time devoted to medical care for women. These results suggest that retirement is not a significant determinant of the amount of time devoted to medical care for both men and women.

Dependent Variable #5: Socializing in Homes

For men, the OLS specification excluding the month dummies is preferred given its higher p-value on the RESET test (Column 2 of Table 6). The OLS coefficient for retirement status is large, positive, and highly statistically significant, suggesting that retirement increases time spent socializing in homes. The p-value of the RESET test for the specification excluding month dummies remains very small, suggesting a possible misspecification of the regression equation. Using a 2SLS approach yields a statistically insignificant negative coefficient and a large variation of the estimate. The WSTE, OVERID, and first stage F-statistic indicate that key retirement ages are valid instruments, even though the Hausman test suggests that OLS is preferred over IV. Therefore, the IV estimate is selected over OLS. These results suggest that retirement has no effect on the time men devote to socializing in homes.

For women, the preferred specification for the OLS regression is the inclusion of the month dummies given its higher p-value in the RESET test (Column 7 of Table 6). The OLS coefficient for retirement is large and statistically significant at all conventional levels. When a 2SLS approach is used, the magnitudes of the coefficients for retirement status decrease significantly and are no longer statistically significant. The key retirement ages remain valid instruments (large first stage F-statistic and failure of the OVERID test to reject the null at the 1% and 5% levels), but the results from the WSTE and Hausman test suggest that OLS is preferred over IV.

Therefore, it is estimated that retirement increases the average amount of time devoted to socializing in homes for women by 43.37 minutes.

Dependent Variable #6: Other Socializing

For men, the preferred specification appears to be the inclusion of month dummies given the higher p-value of the RESET test (Column 3 of Table 7). The coefficient of retirement status is small and statistically significant at all conventional levels. When a 2SLS approach is used, the coefficient decreases significantly in magnitude and is no longer statistically significant. The instruments appear to be valid given the large first stage F-stat and the large p-value of the OVERID test. However, the WSTE fails to reject the null and the negative χ^2 statistic produced by the Hausman test is evidence that the test fails to reject the null. Therefore, this analysis suggests that retirement has a statistically significant positive effect on the average time men spend on other socializing (increases by 12.66 minutes).

For women, the OLS specification excluding the month dummies is preferred given its higher p-value for the RESET test (Column 6 of Table 7). The coefficient for retirement status is statistically insignificant, but a misspecification may continue to persist in both regression equations. Using a 2SLS approach increases the magnitude of the coefficient of retirement and increases the statistical significance of the coefficient to the 10% level. A large first-stage F-statistic, large p-value for the OVERID test, and a small p-value for the WSTE which rejects the null at the 10% level, suggests that IV is preferred over OLS and that retirement increases the average amount of time a woman devotes to other socializing activities by 18 minutes.

Dependent Variable #7: Reading Activities

For men, the RESET tests for both OLS specifications yield identical results (Table 8). Consequently, the specification without the month dummies is selected due to the larger sample size. The OLS regression produces a highly statistically significant and positive coefficient for retirement status. When a 2SLS approach is used, a decrease in magnitude of the coefficient and a loss of statistical significance at conventional levels occurs. The first-stage F-statistic and the p-value of the OVERID test indicate a valid instrument, and the p-value of the WSTE indicates

the rejection of the null at the 10% level, suggesting that the IV specification is appropriate. While the Hausman test suggests that OLS is preferred, the possibility of an endogenous retirement status merits the use of an IV approach. Therefore, the analysis suggests that for men, retirement has a statistically insignificant effect on the amount time allocated to reading.

For women, the OLS specification with month dummies is preferred given its larger p-value for the RESET test (Column 7 of Table 8). The coefficients for retirement status is large (25.24) and statistically significant at the 1% level. When a 2SLS approach is used, a decrease in magnitude and a loss of statistical significance occurs. The large first-stage F-statistic and p-value of the OVERID test indicate that the instruments are valid, yet the p-values of the Hausman test and WSTE indicate that OLS is preferred over IV. If so, the results of this analysis suggests that retirement increases the amount of time allocated to reading by 25.24 minutes for women and is statistically significant.

Dependent Variable #8: Volunteering Activities

Given that volunteering is presented as a dichotomous dependent variable in this paper, two probit models, reporting marginal effects, and two linear probability models are estimated, both with and without the month dummies (Table 9). The p-value of the RESET test for the OLS specification including month dummies is larger, indicating that including them gives the preferred specification. For men, the probit model yields a statistically significant coefficient (0.105) at the 5% level. Given that the key estimated coefficients are similar between the respective probit models, reporting marginal effects, and linear probability models, a 2SLS approach using linear equations can be used rather than a more complicated IV probit estimation. The 2SLS approach including month dummies yields an increase in the coefficient's magnitude to 0.127 but is no longer statistically significant at conventional levels. For the IV regressions, large F-statistics and the failure of the OVERID test to reject the null at the 5% levels suggest that they are valid instruments. However, the results of the WSTE and the Hausman test suggest that OLS is preferred over IV. Therefore, this analysis suggests that retirement increases the probability of volunteering by 10.5%.

For women, the p-value of the RESET test performed on the OLS specification with month dummies is larger, suggesting that the inclusion of month dummies is preferred (Table 10). The

probit model yields a highly statistically significant coefficient for retirement. Given that the key coefficients are similar between the respective probit and linear probability models, a 2SLS approach is used to simplify the analysis. This yields a significantly larger magnitude for the coefficient but reduces its statistical significance to the 10% level. Retirement now leads to an increase in the marginal probability of volunteering of 31.5%. The analysis proceeds with the IV diagnostic tests. The results indicate that OLS is preferred over IV. Therefore, this analysis suggests that retirement increases the marginal probability of volunteering by 16% for women.

Dependent Variable #9: Attending Religious Services/Meetings

Given that attending religious services/meetings is presented as a dichotomous dependent variable in this paper, two probit models are estimated; one including a set of month dummies and excluding them. Linear probability models are also estimated to determine if a simple IV framework can be used rather than a more complicated IV probit estimation. The results of the regressions all have a similar results; the estimated coefficient of retirement is negative, relatively small, and statistically insignificant for males (Table 11). For females, the analysis yields the same results, but the IV estimates become positive (Table 12). The results of this analysis suggest that retirement has no effect on the marginal probability of attending religious services or meetings for both genders.

Problem of misspecification

For some of the dependent variables presented in this section, the p-values for the RESET test were small enough that the test statistic rejected the null (indicating that there were no omitted variables). One potentially relevant and omitted variable is subjective time preference (represented by discount rates). Johnston and Lee (2009) note that investments in health and attachment to the labour force can be affected by discount rates. A second potentially relevant omitted variable is ethnic minority status, which may also play a role in determining how an individual invests in their health. If this information were available in the GSS time use survey, it would have been included as a dependent variable in this study. Unfortunately, this information is not available and presents limitations of this study.

Section 6: Conclusion

The results of this study suggest that the effect of retirement on the allocation of time devoted to health-enhancing activities differs between genders. For men, the results suggest that retirement increases the time devoted to sleep, exercise, meal preparation and other socializing, and increases the likelihood of volunteering. This represents an average increase of 67.12 minutes per day on health-enhancing activities. For women, the results suggest that retirement increases the time allocated to sleep, exercise, meal preparation, medical care, home socializing, other socializing, and reading, and increases the likelihood of volunteering. This represents an average increase of 143.03 minutes per day on health-enhancing activities. Therefore, it appears that the effect of retirement on the amount of time allocated to healthy activities as well as the range of healthy activities undertaken is greater for women than for men.

The results of this study can help us understand some of the findings in the Canadian literature. Recall that Latif (2011) finds that retirement has a significant positive effect on psychological well-being for both men and women. The results of this study support Latif's (2011) findings given that retirement leads men and women to invest more time in time-intensive, healthy activities, particularly those known to promote psychological well-being such as exercising, socializing, and volunteering. In contrast, recall also that Latif (2013) finds that retirement has an insignificant effect on depression. Given that exercising, socializing, and volunteering are known to reduce the risk of depression (i.e. a negative effect on depression), it appears that the results of this study are unable to fully explain Latif's (2013) findings. Similarly, the results of this paper differ slightly from those of Latif (2012), who finds that retirement has a positive but statistically insignificant effect on self-reported health status for both males and females. The results in this study suggest that retirement leads Canadian men and women to invest in a variety of health-enhancing, time-intensive activities. This should lead to improved self-reported health, which is consistent with Latif's "positive effect". To reconcile this study's results with those of Latif (2012), an analysis of the changes in time-intensive health deteriorating activities should also be considered.

This study does present some limitations. First, it is very difficult to account for all activities that may be health-enhancing. Consequently, the dependent variables selected for this study may not fully represent all potential health-enhancing activities at one's disposal. For example, home

maintenance can be physically demanding, promoting physical strength, stamina, balance, and coordination. In this study, home maintenance is not included as a physical activity given that it does not fall under the category of active sports. Yet it can be beneficial to one's health and may increase with retirement given the additional time available to retirees. Consequently, using time devoted to active sports as a proxy for physical exercise may not be a perfect measure. Similarly, time devoted to meal preparation may not be an absolute measure for nutrition either; unhealthy meals can also require additional time to prepare or healthy meals can sometimes be purchased, requiring very little time to prepare. Therefore, if information on nutritional content was also provided in the time use survey, this could be used in addition to time devoted to meal preparation to provide additional insight into the eating habits of Canadians. Second, to the best of my knowledge, part of the study sample may not be random given that respondents of the 1992 wave of the GSS time use survey were not required to complete the entire survey in order to reduce response burden. Consequently, 8.3% of respondents did not complete the time dairy section. Therefore, part of the sample may be non-random if additional steps were not taken to sample respondents in and out of the full questionnaire.

Future research could examine the effect of retirement on time-intensive health deteriorating activities (such as time spent watching TV, on the computer, in solitude) to determine if retirement leads individuals to adopt unhealthy lifestyles. The findings of this future study could complement the findings of this research paper to provide a more complete picture of one's daily activities, allowing researchers to compare the unhealthy activities with the healthy ones.

Section 7: References

Becker, Gary S. "A Theory of the Allocation of Time" *The Economic Journal* 75, no. 229 (1965): 493-517.

Behncke, Stephanie. "Does Retirement Trigger Ill Health?" *Health Economics* 21 (2012): 282-300.

Blaylock, James *et al.* "Economics, Food Choices, and Nutrition" *Food Policy* 24 (1999): 269-286.

Bound, John and Timothy Waidman. "Estimating the Health Effects of Retirements" Working Paper No. 168, Michigan Retirement Research Center, University of Michigan (2007).

Brzozowski, Matthew, and Yuqian Lu. "Home Cooking, Food Consumption, and Food Production among Retired Canadian Households" *Canadian Public Policy* 36, no. 1 (2010): 107-128.

Canadian Institute for Health Information. *Health Care in Canada, 2011: A Focus on Seniors and Aging*. November 1 2011. https://secure.cihi.ca/free_products/HCIC_2011_seniors_report_en.pdf [May 15, 2014]

Cheung, Freda K. and Lonnie R. Snowden "Community Mental Health and Ethnic Minority Populations" *Community Mental Health Journal* 26, no.3 (1990): 277-291.

Coe, Norma B., and Gema Zamarro. "Retirement effects on Health in Europe" *Journal of Health Economics* 30 (2011): 77-86.

Cohen, Sheldon. "Social Relationships and Health" *American Psychologist* 59 (2004): 676-684.

Coile, Courtney. "Retirement Incentives and Couples' Retirement Decisions" *Topics in Economic Analysis & Policy* 4, no. 1 (2004): 1-28.

Dave, Dhaval, Inas Rashad, and Jasmina Spasojevic. "The Effects of Retirement on Physical and Mental Health Outcomes" *Southern Economic Journal* 75, no. 2 (2008): 497-523.

DeWalt, Darren A. *et al.* "Literacy and Health Outcomes: A Systematic Review of the Literature" *Journal of General Internal Medicine* 19 (2004): 1228–1239.

Disney, Richard, Carl Emmerson, and Matthew Wakefield. "Ill Health and Retirement in Britain: A Panel Data-Based Analysis" *Journal of Health Economics* 25 (2006): 612-649.

Dosman, Donna, Janet Fast, Sherry Anne Chapman, and Norah Keating. "Retirement and Productive Activity in Later Life" *Journal of Family and Economic Issues* 27 (2006): 401-419.

Dwyer, Debra Sabatini and Olivia S. Mitchell. "Health Problems as Determinants of Retirement: Are Self-Rated Measures Endogenous?" Population Aging Research Center, University of Pennsylvania Working Paper Series No. 98-02 (1998)

Fuchs, Victor. "Time Preference and Health: An Exploratory Study" NBER Working Paper #539 (1980).

Gauthier, Anne H., and Timothy M. Smeeding. "Time Use at Older Ages: Cross-National Differences" *Research on Aging* 25, no. 23 (May 2003): 247-274.

Grossman, Michael. "On the Concept of Health Capital and the Demand for Health" *Journal of Political Economy* 80 no. 2 (1972): 223-255.

Hausman, J. A. "Specification tests in econometrics" *Econometrica* 46 (1978): 1251–1271.

Jiddou, Monica R. *et al.* "Incidence of Myocardial Infarction With Shifts to and From Daylight Savings Time" *The American Journal of Cardiology* 111, no.5 (2013): 631-635.

Johnston, David W., and Wang-Sheng Lee. "Retiring to the Good Life? The Short-Term Effects of Retirement on Health" *Economics Letters* 103 (2009): 8-11.

Kerkhofs, Marcel, Maarten Lindeboom, and Jules Theeuwes. "Retirement, Financial Incentives and Health" *Labour Economics* 6 (1999): 203-227.

Khitatrakun, Surachai. "Saving, Wealth, and Retirement: Evidence from the Health and Retirement Study" Ph. D dissertation, University of Wisconsin-Madison, 2003.

King, Dana E., Doyle Cummings, and Lauren Whetstone. "Attendance at Religious Services and Subsequent Mental Health in Midlife Women" *International Journal of Psychiatry in Medicine* 35 no. 3 (2005): 287-297.

Landau, Susan M. *et al.* "Association of Lifetime Cognitive Engagement and Low β-Amyloid Deposition" *Archives of Neurology* 69, no.5 (2012):623-629.

Latif, Ehsan. "The Impact of Retirement on Health in Canada" *Canadian Public Policy* 38, no. 1 (2012): 15-29.

Latif, Ehsan. "The Impact of Retirement on Mental Health in Canada" *The Journal of Mental Health Policy and Economics* 16, no.1 (2013): 35-46.

Latif, Ehsan. "The Impact of Retirement on Psychological Well-being in Canada" *The Journal of Socio-Economics* 40 (2011): 373-380.

Lum, Terry Y. and Elizabeth Lightfoot "The Effects of Volunteering on the Physical and Mental Health of Older People" *Research on Aging* 27, no. 1 (2005): 31-55.

Mandal, Bidisha, and Brian Roe. "Job Loss, Retirement and the Mental Health of Older Americans" *The Journal of Mental Health Policy and Economics* 11 (2008): 167-176

McGarry, Kathleen. "Health and Retirement: Do Changes in Health Affect Retirement Expectations?" *Journal of Human Resources* 39, no.3 (2004): 624-648.

Midanik, Lorrain T. "The Effect of Retirement on Mental Health and Health Behaviours: The Kaiser Permanente Retirement Study" *Journal of Gerontology: Social Sciences* 50B, no. 1 (1995): S59-S61.

Newman, Kevin. "Quit Your Job and Get Healthier: The Effect of Retirement on Health" *Journal of Labor Research* 29 (2008): 177-201.

OECD. *Public Spending on Health and Long-Term Care: A New Set of Projections*. June 2013 < http://www.oecd.org/eco/growth/Health%20FINAL.pdf> [July 23, 2014]

Office of the Superintendent of Financial Institutions Canada. *Actuarial Report (9th) on the Old Age Security Program as at 31 December 2009.* 3 June 2011. <http://publications.gc.ca/collections/collection_2012/bsif-osfi/IN3-16-2-2009-eng.pdf> [July 23, 2014].

Paluska, Scott A. and Thomas L. Schwenk "Physical Activity and Mental Health: Current Concepts" *Sports Medicine* 29, no. 3 (2000): 167-180.

Pinkhasov, R. M. *et al.* "Are Men Shortchanged on Health? Perspective on Health Care Utilization and Health Risk Behavior in Men and Women in the United States" *The International Journal of Clinical Practice* 64, no. 4 (2010): 475-487.

Ramsey, J. B. "Tests for specification errors in classical linear least-squares regression analysis" *Journal of the Royal Statistical Society*, Series B 31 (1969): 350–371.

Schreiber, Sven. "The Hausman Test Statistic can be Negative even Asymptotically" *Journal of Economics and Statistics* (Jahrbuecher fuer Nationaloekonomie und Statistik), Justus-Liebig University Giessen, Department of Statistics and Economics 228, no. 4 (2008): 394-405.

StataCorp LP. *Hausman – Hausman Specification Test*. 2013 http://www.stata.com/manuals13/rhausman.pdf [August 6, 2014]

Stobert, Susan, Donna Dosman, and Norah Keating. *Aging Well: Time Use Patterns of Older Canadians 2005*. Ottawa, Ontartio, Cananda: Statistics Canada, 2006.Wooldridge, J. M. 1995. Score diagnostics for linear models estimated by two stage least squares. In Advances in Econometrics and Quantitative Economics: Essays in Honor of Professor C. R. Rao, ed. G. S. Maddala, P. C. B. Phillips, and T. N. Srinivasan, 66–87. Oxford: Blackwell.

Section 8: Tables

Table 1: Descriptive Statistics: General Social Survey on Time Use

Variable	Male		Female	
	Mean (s.e): Retired	Mean (s.e.): Non-retired	Mean (s.e.): Retired	Mean (s.e.): Non-retired
Time (in minutes) spent:				
Sleeping	498.76 (1.77)	460.85 (1.75)	508.01 (1.64)	471.76 (1.75)
Exercising (active sports)	41.04 (1.58)	25.38 (1.18)	25.74 (1.03)	17.77 (0.90)
Medical & Dental care	2.72 (0.41)	0.97 (0.17)	3.41 (0.33)	2.06 (0.24)
Preparing meals	25.11 (0.67)	19.58 (0.54)	51.10 (0.80)	41.35 (0.83)
Socializing (in homes)	76.07 (2.37)	56.13 (1.82)	88.81 (2.10)	63.78 (1.94)
Socializing (other)	18.82 (1.27)	10.32 (0.81)	14.93 (0.98)	10.84 (0.94)
Reading	59.99 (1.54)	23.35 (0.79)	62.61 (1.48)	27.59 (0.96)
Attended a religious service in the past 12 months	0.67 (0.009)	0.63 (0.008)	0.73 (0.007)	0.68 (0.008)
Volunteered in the past 12 months*	0.29 (.008)	0.33 (0.008)	0.32 (0.008)	0.35 (0.008)
Age (category)	65-69 (0.03)	50-54 (0.02)	65-69 (0.03)	50-54 (0.02)
Marital status				
Single (Never Married)	0.06 (0.004)	0.06 (0.004)	0.07 (0.004)	0.08 (0.005)
Married/Common Law	0.79 (0.008)	0.84 (0.006)	0.50 (0.008)	0.71 (0.008)
Widow/Divorced/Separated	0.15 (0.007)	0.10 (0.005)	0.43 (0.008)	0.21 (0.007)
Health status				
Excellent	0.17 (0.007)	0.27 (0.007)	0.16 (0.006)	0.25 (0.007)
Very Good	0.30 (0.008)	0.33 (0.008)	0.31 (0.008)	0.34 (0.008)
Good	0.33 (0.009)	0.30 (0.007)	0.31 (0.008)	0.30 (0.008)
Fair	0.14 (0.007)	0.08 (0.004)	0.16 (0.006)	0.09 (0.005)
Poor	0.05 (0.004)	0.01 (0.002)	0.06 (0.004)	0.02 (0.002)
Education				
Less than secondary	0.42 (0.009)	0.22 (0.007)	0.39 (0.008)	0.16 (0.006)
Secondary graduate	0.13 (0.006)	0.17 (0.006)	0.17 (.006)	0.18 (0.007)
Post-secondary	0.24 (0.008)	0.26 (0.007)	0.20 (0.007)	0.27 (0.008)
College/university	0.20 (0.007)	0.35 (0.008)	0.22 (0.007)	0.39 (0.008)
Household income				
No income	0.00 (0.0008)	0.00 (0.0005)	0.00 (0.0009)	0.00 (0.0005)
Less than $5000	0.00 (0.001)	0.00 (0.0007)	0.00 (0.001)	0.00 (0.0007)
$5,000 to $9,999	0.02 (0.003)	0.00 (0.001)	0.04 (0.003)	0.01 (0.002)
$10,000 to $14,999	0.06 (0.004)	0.01 (0.002)	0.08 (0.004)	0.01 (0.002)
$15,000 to $19,999	0.08 (0.005)	0.02 (0.002)	0.08 (.004)	0.03 (0.003)
$20,000 to $29,999	0.17 (0.007)	0.05 (0.003)	0.12 (0.005)	0.07 (0.005)
$30,000 to $39,999	0.11 (0.006)	0.07 (0.004)	0.09 (0.005)	0.09 (0.005)
$40,000 to $49,999	0.10 (0.005)	0.09 (0.005)	0.07 (0.004)	0.09 (0.005)
$50,000 to $59,999	0.07 (0.005)	0.11 (0.005)	0.04 (0.003)	0.10 (0.005)
$60,000 to $79,999	0.07 (0.005)	0.16 (0.006)	0.05 (0.004)	0.14 (0.006)
$80,000 or more	0.07 (0.005)	0.32 (0.008)	0.04 (0.003)	0.23 (0.007)
Home owner	0.83 (0.007)	0.85 (0.006)	0.72 (0.008)	0.82 (0.007)
Residing in an urban area	0.60 (0.009)	0.66 (0.008)	0.64 (0.008)	0.69 (0.008)
Province of residence				
NL	0.02 (0.003)	0.02 (0.002)	0.01 (0.002)	0.01 (0.002)
PEI	0.00 (0.001)	0.00 (0.001)	0.00 (0.001)	0.00 (0.001)
NS	0.04 (0.003)	0.03 (0.003)	0.03 (.003)	0.03 (0.003)
NB	0.03 (0.003)	0.02 (0.002)	0.02 (0.002)	0.02 (0.003)
QC	0.25 (0.008)	0.25 (0.007)	0.22 (0.007)	0.23 (0.007)
ON	0.36 (0.009)	0.38 (0.008)	0.40 (0.008)	0.39 (0.008)
MB	0.04 (0.004)	0.04 (0.003)	0.04 (0.003)	0.04 (0.003)
SK	0.04 (0.003)	0.03 (.003)	0.04 (0.003)	0.03 (0.003)
AB	0.07 (0.005)	0.10 (0.005)	0.08 (0.005)	0.10 (0.005)
BC	0.15 (0.007)	0.12 (0.005)	0.16 (0.006)	0.14 (0.006)
Interview on a weekday	0.72 (0.008)	0.71 (0.007)	0.72 (0.008)	0.73 (0.008)

Source: Statistics Canada, General Social Survey on Time Use (1992, 1998, 2005)
*Only for years 2005 and 1998
Note: the month during which the time use diary is not included in this table given a fairly even distribution across months

Table 2 : Regression results and diagnostics
Dependent variable: time devoted to sleep (minutes per day)

Key Variables (1)	Males				Females			
	OLS_1 (2)	OLS_2 (3)	IV_1 (4)	IV_2 (5)	OLS_1 (6)	OLS_2 (7)	IV_1 (8)	IV_2 (9)
Retired	26.78*** (5.29)	26.06*** (6.91)	18.16 (17.00)	9.70 (22.68)	18.59*** (4.82)	18.18** (7.46)	24.87 (19.14)	12.57 (27.13)
Age	-2.17 (3.55)	0.18 (4.92)	-0.26 (5.29)	4.02 (7.38)	-0.31 (3.28)	-1.78 (4.86)	-2.14 (6.48)	-0.12 (9.30)
Age^2	0.52 (0.36)	0.38 (0.51)	0.45 (0.40)	0.22 (0.58)	0.56 (0.34)	0.70 (0.51)	0.65 (0.45)	0.61 (0.66)
Excellent	0.41 (9.06)	-7.18 (13.45)	-1.14 (9.50)	-10.70 (14.23)	-23.34** (10.05)	-22.86 (14.08)	-22.59** (10.30)	-23.57* (14.26)
Very Good	10.03 (8.73)	2.44 (13.26)	8.73 (9.12)	-0.72 (13.99)	-16.12 (9.79)	-17.20 (13.80)	-15.56 (9.91)	-17.69 (13.78)
Good	8.71 (8.68)	2.13 (13.23)	7.53 (9.06)	-0.50 (13.75)	-16.63* (9.86)	-11.36 (14.00)	-15.95 (9.99)	-12.06 (14.01)
Fair	16.29* (9.64)	5.51 (14.70)	15.26 (9.87)	3.40 (15.04)	-9.96 (10.22)	-10.34 (14.43)	-9.44 (10.32)	-10.77 (14.38)
Weekend	39.74*** (3.79)	47.24*** (5.22)	39.78*** (3.77)	47.19*** (5.16)	30.99*** (3.45)	31.38*** (4.81)	30.90*** (3.45)	31.51*** (4.78)
Constant	438.84*** (13.70)	470.15*** (21.12)	437.26*** (14.08)	467.23*** (21.42)	460.70*** (13.97)	465.65*** (22.56)	462.35*** (14.82)	464.32*** (23.62)
Dummies:								
Province	X	X	X	X	X	X	X	X
Month	-	X	-	X	-	X	-	X
All Years	X	-	X	-	X	-	X	-
1992, 1998	-	X	-	X	-	X	-	X
Observations	6,686	2,830	6,686	2,830	6,946	2,916	6,946	2,916
Tests:								
Ramsey RESET (p-value)	0.0000	0.0009	-	-	0.0000	0.0002	-	-
Wooldrigde Score of Exogeneity (p-value)	-	-	0.5209	0.3670	-	-	0.6511	0.7736
Over-identifying restrictions (p-value)	-	-	0.2417	0.6977	-	-	0.1408	0.0245
1st Stage F-Stat	-	-	81.617	42.922	-	-	77.7563	38.0919
Hausman (p-value)	-	-	1.0000	1.0000	-	-	1.0000	1.0000

Note: *** p<0.01, ** p<0.05, * p<0.1

Table 3 : Regression results and diagnostics
Dependent variable: time devoted to exercise (minutes per day)

Key Variables (1)	Males				Females			
	OLS_1 (2)	OLS_2 (3)	IV_1 (4)	IV_2 (5)	OLS_1 (6)	OLS_2 (7)	IV_1 (8)	IV_2 (9)
Retired	27.85*** (3.79)	22.85*** (5.59)	25.55* (13.67)	13.89 (18.34)	23.71*** (3.46)	24.88*** (5.78)	12.16 (11.81)	11.36 (18.02)
Age	2.98 (2.53)	2.42 (3.87)	3.49 (4.09)	4.53 (6.06)	-0.80 (1.76)	-1.91 (2.81)	2.55 (3.88)	2.09 (5.92)
Age^2	-0.64** (0.27)	-0.62 (0.41)	-0.66** (0.31)	-0.71 (0.47)	-0.30* (0.17)	-0.31 (0.26)	-0.47* (0.26)	-0.52 (0.39)
Excellent	23.04*** (6.24)	17.89** (9.05)	22.62*** (6.69)	15.96 (9.87)	20.06*** (3.87)	17.07*** (5.20)	18.68*** (4.04)	15.37*** (5.40)
Very Good	14.61** (5.71)	8.21 (8.53)	14.26** (5.92)	6.48 (8.85)	11.15*** (3.12)	9.40** (4.15)	10.11*** (3.29)	8.23* (4.40)
Good	6.84 (5.61)	2.65 (8.31)	6.52 (5.88)	1.21 (8.79)	7.41** (3.13)	7.63* (4.30)	6.15* (3.32)	5.94 (4.62)
Fair	2.84 (5.92)	-0.99 (8.94)	2.56 (6.08)	-2.14 (9.10)	4.00 (3.35)	4.30 (4.82)	3.05 (3.46)	3.27 (4.89)
Weekend	9.22*** (3.20)	7.45 (4.67)	9.23*** (3.18)	7.43 (4.63)	2.29 (2.01)	2.90 (2.99)	2.47 (1.99)	3.21 (2.93)
Constant	7.61 (10.36)	13.52 (19.69)	7.19 (10.62)	11.92 (20.41)	14.89** (6.81)	5.66 (10.20)	11.86* (6.92)	2.46 (10.49)
Dummies:								
Province	X	X	X	X	X	X	X	X
Month	-	X	-	X	-	X	-	X
All Years	X	-	X	-	X	-	X	-
1992, 1998	-	X	-	X	-	X	-	X
Observations:	6,686	2,830	6,686	2,830	6,946	2,916	6,946	2,916
Tests:								
Ramsey RESET (p-value)	0.0009	0.0369	-	-	0.0399	0.0003	-	-
Wooldrigde Score of Exogeneity (p-value)	-	-	0.8349	0.5574	-	-	0.2072	0.3549
Over-identifying restrictions (p-value)	-	-	0.2302	0.6302	-	-	0.5640	0.2703
1st Stage F-Stat	-	-	81.617	42.922	-	-	77.7563	38.0919
Hausman (p-value)	-	-	1.0000	chi2(50) = -0.02	-	-	chi2(41) = -0.07	chi2(49)= -0.01
Notes: *** p<0.01, ** p<0.05, * p<0.1								

Table 4 : Regression results and diagnostics
Dependent variable: time devoted to meal preparation (minutes per day)

Key Variables (1)	Males				Females			
	OLS_1 (2)	OLS_2 (3)	IV_1 (4)	IV_2 (5)	OLS_1 (6)	OLS_2 (7)	IV_1 (8)	IV_2 (9)
Retired	5.55*** (1.52)	3.66* (2.09)	-0.34 (5.64)	-3.63 (7.39)	8.32*** (2.62)	10.71*** (3.70)	7.02 (9.93)	20.62* (11.89)
Age	-2.15* (1.11)	-2.24 (1.57)	-0.84 (1.70)	-0.53 (2.36)	1.81 (1.58)	1.48 (2.23)	2.19 (3.22)	-1.46 (3.97)
Age^2	0.30** (0.13)	0.41** (0.18)	0.25* (0.14)	0.34* (0.20)	-0.17 (0.17)	-0.21 (0.23)	-0.19 (0.22)	-0.06 (0.28)
Excellent	2.91 (3.51)	8.35** (3.45)	1.85 (3.62)	6.79* (3.84)	2.21 (3.53)	-5.26 (5.16)	2.06 (3.69)	-4.02 (5.26)
Very Good	2.12 (3.45)	5.75* (3.30)	1.22 (3.53)	4.34 (3.67)	3.20 (3.36)	-2.42 (5.04)	3.09 (3.46)	-1.56 (5.07)
Good	1.92 (3.40)	7.75** (3.30)	1.11 (3.44)	6.57* (3.53)	5.45 (3.37)	0.27 (4.97)	5.31 (3.46)	1.51 (5.09)
Fair	2.04 (3.53)	7.23** (3.62)	1.34 (3.57)	6.29* (3.80)	5.47 (3.76)	-1.20 (5.57)	5.37 (3.83)	-0.45 (5.55)
Weekend	4.39*** (1.23)	4.85*** (1.66)	4.41*** (1.23)	4.83*** (1.64)	6.99*** (1.84)	5.99** (2.61)	7.01*** (1.82)	5.76** (2.58)
Married/ Common-law	-12.52*** (2.85)	-19.52*** (3.99)	-12.58*** (2.84)	-19.61*** (3.97)	12.93*** (2.51)	14.30*** (3.71)	12.95*** (2.52)	14.34*** (3.68)
Constant	22.46*** (5.10)	29.02*** (6.33)	21.38*** (5.13)	27.71*** (6.17)	21.94*** (5.54)	26.80*** (8.69)	21.60*** (6.18)	29.15*** (9.16)
Dummies :								
Province	X	X	X	X	X	X	X	X
Month	-	X	-	X	-	X	-	X
All Years	X	-	X	-	X	-	X	-
1992, 1998	-	X	-	X	-	X	-	X
Observations	6,686	2,830	6,686	2,830	6,946	2,916	6,946	2,916
Tests:								
Ramsey RESET (p-value)	0.6002	0.0565	-	-	0.4183	0.0861	-	-
Wooldrigde Score of Exogeneity (p-value)	-	-	0.1901	0.2247	-	-	0.8582	0.2692
Over-identifying restrictions (p-value)	-	-	0.4921	0.0225	-	-	0.3177	0.9862
1st Stage F-Stat	-	-	81.617	42.922	-	-	77.7563	38.0919
Hausman(p-value)	-	-	1.0000	1.0000	-	-	1.0000	chi2(51)= -0.36
*** p<0.01, ** p<0.05, * p<0.1								

Table 5 : Regression results and diagnostics
Dependent variable: time devoted to medical care (minutes per day)

Key Variables (1)	Males				Females			
	OLS_1 (2)	OLS_2 (3)	IV_1 (4)	IV_2 (5)	OLS_1 (6)	OLS_2 (7)	IV_1 (8)	IV_2 (9)
Retired	0.55 (1.06)	0.39 (1.69)	3.35 (2.72)	4.94 (4.26)	1.19* (0.71)	0.97 (1.10)	6.22* (3.63)	5.40 (5.07)
Age	0.21 (0.37)	0.22 (0.54)	-0.42 (0.47)	-0.84 (0.72)	0.48 (0.59)	0.50 (0.91)	-0.98 (0.91)	-0.82 (1.21)
Age^2	0.02 (0.05)	0.03 (0.07)	0.04 (0.04)	0.08 (0.06)	-0.05 (0.08)	-0.01 (0.12)	0.03 (0.07)	0.06 (0.11)
Excellent	-3.86 (2.87)	-2.17 (2.67)	-3.36 (2.96)	-1.20 (2.84)	-5.23** (2.44)	-4.83* (2.69)	-4.63* (2.39)	-4.27 (2.79)
Very Good	-4.37 (2.86)	-2.71 (2.66)	-3.94 (2.93)	-1.83 (2.80)	-6.74*** (2.35)	-6.74*** (2.48)	-6.29*** (2.29)	-6.36** (2.53)
Good	-4.30 (2.84)	-2.84 (2.69)	-3.91 (2.89)	-2.11 (2.75)	-5.50** (2.37)	-5.42** (2.48)	-4.95** (2.30)	-4.87* (2.55)
Fair	-3.30 (2.89)	-1.78 (2.94)	-2.97 (2.93)	-1.19 (2.95)	-5.09** (2.45)	-4.75* (2.62)	-4.68* (2.40)	-4.41* (2.66)
Weekend	-1.96*** (0.35)	-2.20*** (0.53)	-1.97*** (0.35)	-2.19*** (0.53)	-3.15*** (0.40)	-3.97*** (0.59)	-3.23*** (0.41)	-4.07*** (0.60)
Constant	4.68 (3.30)	2.30 (3.44)	5.20 (3.29)	3.12 (3.50)	11.25*** (3.54)	12.99*** (4.58)	12.57*** (3.66)	14.04*** (4.37)
Dummies :								
Province	X	X	X	X	X	X	X	X
Month	-	X	-	X	-	X	-	X
All Years	X	-	X	-	X	-	X	-
1992, 1998	-	X	-	X	-	X	-	X
Observations	6,686	2,830	6,686	2,830	6,946	2,916	6,946	2,916
Tests:								
Ramsey RESET (p-value)	0.0020	0.0032	-	-	0.0002	0.0001	-	-
Wooldrigde Score of Exogeneity (p-value)	-	-	0.2310	0.1789	-	-	0.0448	0.1942
Over-identifying restrictions (p-value)	-	-	0.8244	0.8400	-	-	0.6033	0.2051
1st Stage F-Stat	-	-	81.617	42.922	-	-	77.7563	38.0919
Hausman (p-value)	-	-	1.0000	1.0000	-	-	1.0000	1.0000

*** p<0.01, ** p<0.05, * p<0.1

Table 6 : Regression results and diagnostics
Dependent variable: time devoted to socializing in homes (minutes per day)

Key Variables (1)	Males				Females			
	OLS_1 (2)	OLS_2 (3)	IV_1 (4)	IV_2 (5)	OLS_1 (6)	OLS_2 (7)	IV_1 (8)	IV_2 (9)
Retired	20.08*** (5.66)	18.86** (8.39)	-16.95 (22.37)	-29.29 (31.13)	38.04*** (6.23)	43.37*** (9.81)	5.75 (23.52)	26.42 (34.32)
Age	5.23 (3.85)	5.17 (5.70)	13.44** (6.17)	16.46* (9.29)	-3.27 (4.56)	-5.82 (7.06)	6.11 (8.29)	-0.80 (12.62)
Age^2	-0.62 (0.45)	-0.59 (0.64)	-0.92* (0.48)	-1.07 (0.72)	-0.13 (0.46)	-0.10 (0.68)	-0.61 (0.59)	-0.36 (0.89)
Excellent	16.45 (10.58)	18.42 (15.29)	9.79 (11.66)	8.07 (17.55)	8.17 (8.90)	19.24 (11.89)	4.32 (9.30)	17.11 (12.38)
Very Good	15.53 (10.13)	14.51 (14.94)	9.91 (10.91)	5.21 (16.76)	8.05 (8.82)	19.41 (11.98)	5.15 (9.14)	17.94 (12.42)
Good	7.31 (9.93)	5.32 (14.82)	2.23 (10.68)	-2.42 (16.37)	3.82 (8.66)	12.96 (11.82)	0.29 (8.99)	10.84 (12.28)
Fair	1.36 (10.40)	6.02 (15.53)	-3.04 (11.06)	-0.21 (16.76)	4.23 (9.37)	11.18 (13.07)	1.60 (9.53)	9.89 (13.07)
Weekend	61.75*** (5.01)	64.25*** (7.25)	61.92*** (5.00)	64.11*** (7.19)	43.70*** (5.18)	40.16*** (8.09)	44.19*** (5.18)	40.54*** (7.96)
Constant	20.78 (14.97)	-3.68 (25.09)	13.97 (15.52)	-12.29 (25.40)	51.99*** (15.00)	42.24* (22.86)	43.53*** (15.38)	38.23* (22.73)
Dummies :								
Province	X	X	X	X	X	X	X	X
Month	-	X	-	X	-	X	-	X
All Years	X	-	X	-	X	-	X	-
1992, 1998	-	X	-	X	-	X	-	X
Observations	6,686	2,830	6,686	2,830	6,946	2,916	6,946	2,916
Tests:								
Ramsey RESET (p-value)	0.0007	0.0000	-	-	0.4368	0.7395	-	-
Wooldrigde Score of Exogeneity (p-value)	-	-	0.0207	0.0392	-	-	0.0667	0.5182
Over-identifying restrictions (p-value)	-	-	0.3255	0.7108	-	-	0.0932	0.0744
1st Stage F-Stat	-	-	81.617	42.922	-	-	77.7563	38.0919
Hausman (p-value)	-	-	chi2(41) = -2.90	1.0000	-	-	chi2(41) = -0.86	1.0000
*** p<0.01, ** p<0.05, * p<0.1								

Table 7 : Regression results and diagnostics
Dependent variable: time devoted to other socializing (minutes per day)

Key Variables (1)	Males				Females			
	OLS_1 (2)	OLS_2 (3)	IV_1 (4)	IV_2 (5)	OLS_1 (6)	OLS_2 (7)	IV_1 (8)	IV_2 (9)
Retired	8.82*** (2.70)	12.66*** (4.06)	4.72 (10.28)	-1.71 (14.38)	4.27 (2.72)	8.11** (3.87)	18.00* (9.48)	12.04 (11.98)
Age	3.43** (1.56)	3.07 (2.26)	4.34 (2.72)	6.44 (4.02)	1.26 (1.81)	0.63 (2.38)	-2.74 (3.46)	-0.54 (4.48)
Age^2	-0.47** (0.19)	-0.51* (0.30)	-0.50** (0.21)	-0.65** (0.33)	-0.17 (0.20)	-0.19 (0.27)	0.03 (0.26)	-0.13 (0.35)
Excellent	3.77 (4.95)	3.36 (8.20)	3.04 (5.21)	0.27 (8.41)	17.16*** (2.78)	16.43*** (3.87)	18.80*** (3.06)	16.92*** (4.18)
Very Good	3.74 (4.85)	3.48 (8.09)	3.12 (4.96)	0.70 (8.19)	9.26*** (1.79)	8.93*** (2.37)	10.49*** (2.11)	9.28*** (2.57)
Good	5.15 (5.17)	5.28 (8.64)	4.58 (5.29)	2.97 (8.66)	10.65*** (1.83)	11.54*** (2.67)	12.14*** (2.14)	12.03*** (2.97)
Fair	4.73 (5.73)	2.87 (9.55)	4.24 (5.75)	1.02 (9.56)	11.02*** (2.47)	12.63*** (3.69)	12.14*** (2.48)	12.93*** (3.64)
Weekend	10.12*** (2.33)	7.20** (3.40)	10.14*** (2.33)	7.16** (3.39)	10.31*** (2.44)	7.52** (3.07)	10.10*** (2.42)	7.43** (3.09)
Constant	8.75 (7.98)	5.37 (14.46)	7.99 (8.18)	2.79 (14.57)	-7.99* (4.50)	-4.60 (7.69)	-4.39 (4.92)	-3.67 (8.05)
Dummies :								
Province	X	X	X	X	X	X	X	X
Month	-	X	-	X	-	X	-	X
All Years	X	-	X	-	X	-	X	-
1992, 1998	-	X	-	X	-	X	-	X
Observations	6,686	2,830	6,686	2,830	6,946	2,916	6,946	2,916
Tests:								
Ramsey RESET (p-value)	0.0159	0.1177	-	-	0.0047	0.0000	-	-
Wooldrigde Score of Exogeneity (p-value)	-	-	0.6329	0.2732	-	-	0.0678	0.6876
Over-identifying restrictions (p-value)	-	-	0.9200	0.4766	-	-	0.6207	0.5795
1st Stage F-Stat	-	-	81.617	42.922	-	-	77.7563	38.0919
Hausman (p-value)	-	-	1.0000	chi2(51)= -0.03	-	-	1.0000	1.0000
*** p<0.01, ** p<0.05, * p<0.1								

Table 8 : Regression results and diagnostics
Dependent variable: time devoted to reading (minutes per day)

Key Variables (1)	Males				Females			
	OLS_1 (2)	OLS_2 (3)	IV_1 (4)	IV_2 (5)	OLS_1 (6)	OLS_2 (7)	IV_1 (8)	IV_2 (9)
Retired	24.86*** (3.33)	22.86*** (5.09)	9.99 (11.91)	6.62 (16.97)	26.82*** (3.34)	25.24*** (5.03)	20.58 (13.44)	21.83 (19.08)
Age	4.17** (2.08)	6.63** (3.23)	7.47** (2.98)	10.44** (4.63)	0.85 (2.21)	-0.86 (3.41)	2.66 (4.10)	0.15 (6.14)
Age^2	0.32 (0.28)	0.19 (0.43)	0.20 (0.27)	0.03 (0.43)	0.44 (0.27)	0.54 (0.40)	0.35 (0.30)	0.49 (0.46)
Excellent	0.16 (6.35)	-1.58 (9.38)	-2.51 (6.77)	-5.07 (10.22)	-0.07 (6.11)	-6.37 (8.91)	-0.81 (6.26)	-6.80 (9.07)
Very Good	-3.98 (6.06)	-9.14 (9.11)	-6.24 (6.35)	-12.28 (9.75)	4.91 (6.03)	0.22 (8.88)	4.35 (6.09)	-0.07 (8.87)
Good	-1.22 (6.07)	-2.65 (9.15)	-3.26 (6.26)	-5.26 (9.45)	-0.74 (5.95)	-4.21 (8.81)	-1.42 (6.05)	-4.64 (8.88)
Fair	-8.24 (6.26)	-12.83 (9.40)	-10.00 (6.44)	-14.93 (9.67)	1.13 (6.45)	-2.48 (9.38)	0.63 (6.49)	-2.73 (9.35)
Weekend	3.07 (2.13)	1.81 (3.16)	3.14 (2.12)	1.77 (3.15)	5.80** (2.52)	2.36 (3.77)	5.89** (2.50)	2.44 (3.70)
Constant	7.32 (8.59)	15.35 (14.09)	4.59 (8.78)	12.45 (14.22)	15.24* (9.25)	16.28 (14.26)	13.60 (9.59)	15.47 (14.44)
Dummies :								
Province	X	X	X	X	X	X	X	X
Month	-	X	-	X	-	X	-	X
All Years	X	-	X	-	X	-	X	-
1992, 1998	-	X	-	X	-	X	-	X
Observations	6,686	2,830	6,686	2,830	6,946	2,916	6,946	2,916
Tests:								
Ramsey RESET (p-value)	0.0000	0.0000	-	-	0.0000	0.0025	-	-
Wooldrigde Score of Exogeneity (p-value)	-	-	0.0911	0.2185	-	-	0.5686	0.8306
Over-identifying restrictions (p-value)	-	-	0.7960	0.4445	-	-	0.2071	0.4413
1st Stage F-Stat	-	-	81.617	42.922	-	-	77.7563	38.0919
Hausman (p-value)	-	-	1.0000	chi2(50)= -42.29	-	-	1.0000	1.0000
*** p<0.01, ** p<0.05, * p<0.1								

Table 9 : Regression results and diagnostics
Dependent variable: volunteering (males)

Key Variables (1)	$dProbit_1$ (2)	OLS_1 (3)	$dProbit_2$ (4)	OLS_2 (5)	IV_1 (6)	IV_2 (7)
Retired	0.039 (0.03)	0.037 (0.02)	0.105** (0.05)	0.097** (0.04)	0.023 (0.10)	0.127 (0.16)
Age	-0.003 (0.02)	-0.002 (0.02)	-0.033 (0.03)	-0.032 (0.03)	0.001 (0.03)	-0.038 (0.05)
Age^2	-0.0004 (0.002)	-0.0004 (0.002)	0.001 (0.003)	0.001 (0.003)	-0.0005 (0.002)	0.001 (0.004)
Excellent	0.090 (0.06)	0.071 (0.05)	0.081 (0.09)	0.072 (0.08)	0.069 (0.05)	0.077 (0.09)
Very Good	0.041 (0.05)	0.028 (0.04)	0.008 (0.09)	0.003 (0.08)	0.026 (0.04)	0.008 (0.08)
Good	0.055 (0.054)	0.040 (0.04)	-0.025 (0.09)	-0.026 (0.08)	0.039 (0.04)	-0.022 (0.08)
Fair	0.013 (0.06)	-0.0005 (0.05)	-0.039 (0.09)	-0.040 (0.09)	-0.002 (0.05)	-0.038 (0.09)
College or University	0.261*** (0.03)	0.237*** (0.02)	0.326*** (0.04)	0.291*** (0.04)	0.238*** (0.02)	0.290*** (0.04)
Post Secondary	0.157*** (0.03)	0.133*** (0.02)	0.157*** (0.04)	0.127*** (0.04)	0.133*** (0.02)	0.126*** (0.04)
Secondary Graduate	0.146*** (0.03)	0.121*** (0.03)	0.214*** (0.05)	0.176*** (0.04)	0.122*** (0.03)	0.175*** (0.04)
Weekend	0.015 (0.02)	0.014 (0.02)	0.006 (0.03)	0.005 (0.03)	0.014 (0.02)	0.005 (0.03)
Constant	-	0.127 (0.06)	-	0.135 (0.12)	0.124* (0.066)	0.139 (0.12)
Dummies :						
Province	X	X	X	X	X	X
Month	-	-	X	X	-	X
1998	-	-	X	X	-	X
1998, 2005	X	X	-	-	X	-
Observations	5,530	5,530	1,671	1,674	5,530	1,674
Tests :						
Ramsey RESET (p-value)	-	0.0002	-	0.4124	-	-
Wooldrigde Score of Exogeneity (p-value)	-	-	-	-	0.8443	0.8214
Over-identifying restrictions (p-value)	-	-	-	-	0.0596	0.0667
1st Stage F-Stat	-	-	-	-	59.1259	18.8477
Hausman (p-value)	-	-	-	-	1.0000	1.0000
*** p<0.01, ** p<0.05, * p<0.1						

Table 10 : Regression results and diagnostics
Dependent variable: volunteering (females)

Key Variables (1)	$dProbit_1$ (2)	OLS_1 (3)	$dProbit_2$ (4)	OLS_2 (5)	IV_1 (6)	IV_2 (7)
Retired	0.112*** (0.03)	0.108*** (0.02)	0.160*** (0.05)	0.158*** (0.04)	0.296*** (0.10)	0.315* (0.18)
Age	-0.001 (0.012)	-0.003 (0.02)	0.0001 (0.03)	-0.008 (0.03)	-0.058 (0.04)	-0.055 (0.06)
Age^2	-0.002 (0.002)	-0.002 (0.002)	-0.004 (0.003)	-0.003 (0.003)	0.001 (0.002)	-0.0003 (0.004)
Excellent	0.206*** (0.07)	0.184*** (0.05)	0.125 (0.12)	0.127 (0.10)	0.210*** (0.05)	0.152 (0.10)
Very Good	0.174*** (0.07)	0.156*** (0.05)	0.103 (0.11)	0.107 (0.09)	0.175*** (0.05)	0.123 (0.10)
Good	0.130** (0.07)	0.115** (0.05)	0.058 (0.11)	0.066 (0.09)	0.136*** (0.05)	0.088 (0.10)
Fair	0.027 (0.07)	0.025 (0.05)	-0.064 (0.10)	-0.043 (0.10)	0.040 (0.05)	-0.034 (0.10)
College or University	0.247*** (0.03)	0.226*** (0.02)	0.230*** (0.04)	0.230*** (0.04)	0.229*** (0.02)	0.215*** (0.04)
Post Secondary	0.171*** (0.03)	0.147*** (0.02)	0.173*** (0.04)	0.148*** (0.04)	0.156*** (0.02)	0.159*** (0.04)
Secondary Graduate	0.061** (0.03)	0.046** (0.02)	0.057 (0.04)	0.045 (0.04)	0.051** (0.02)	0.055 (0.04)
Weekend	-0.004 (0.02)	-0.004 (0.02)	-0.010 (0.03)	-0.010 (0.03)	-0.005 (0.02)	-0.010 (0.03)
Constant	-	0.164** (0.08)	-	0.211 (0.157)	0.206** (0.08)	0.240 (0.16)
Dummies :						
Province	X	X	X	X	X	X
Month	-	-	X	X	-	X
1998	-	-	X	X	-	X
1998, 2005	X	X	-	-	X	-
Observations	5,874	5,874	1,840	1,844	5,874	1,844
Tests :						
Ramsey RESET (p-value)	-	0.0000	-	0.0007	-	-
Wooldrigde Score of Exogeneity (p-value)	-	-	-	-	0.0195	0.2789
Over-identifying restrictions (p-value)	-	-	-	-	0.0014	0.0026
1st Stage F-Stat	-	-	-	-	56.8032	17.4774
Hausman (p-value)	-	-	-	-	chi2(39) = -6.45	1.0000
*** p<0.01, ** p<0.05, * p<0.1						

Table 11 : Regression results and diagnostics
Dependent variable: Attendance to Religious Services/Meetings (Males)

Key Variables (1)	$dProbit_1$ (2)	OLS_1 (3)	$dProbit_2$ (4)	OLS_2 (5)	IV_1 (6)	IV_2 (7)
Retired	-0.022 (0.02)	-0.019 (0.02)	-0.034 (0.04)	-0.030 (0.03)	-0.076 (0.08)	-0.168 (0.12)
Age	0.003 (0.02)	0.004 (0.02)	0.019 (0.02)	0.020 (0.02)	0.017 (0.02)	0.052 (0.04)
Age^2	0.002 (0.002)	0.002 (0.002)	0.001 (0.003)	0.001 (0.002)	0.002 (0.002)	-0.0004 (0.003)
Excellent	0.163*** (0.04)	0.174*** (0.05)	0.146** (0.06)	0.146** (0.06)	0.164*** (0.05)	0.116* (0.07)
Very Good	0.188*** (0.04)	0.197*** (0.04)	0.171*** (0.05)	0.169*** (0.06)	0.188*** (0.05)	0.143** (0.06)
Good	0.149*** (0.04)	0.156*** (0.04)	0.099* (0.06)	0.097 (0.06)	0.148*** (0.05)	0.075 (0.06)
Fair	0.132*** (0.04)	0.144*** (0.05)	0.113* (0.06)	0.116* (0.06)	0.137*** (0.05)	0.098 (0.07)
Married or Common-law	0.114*** (0.03)	0.112*** (0.03)	0.123*** (0.04)	0.119*** (0.04)	0.111*** (0.03)	0.118*** (0.04)
Weekend	0.024 (0.02)	0.024 (0.02)	0.049** (0.02)	0.047** (0.02)	0.024 (0.02)	0.046** (0.02)
Constant	-	0.280*** (0.07)	-	0.317*** (0.10)	0.270*** (0.07)	0.293*** (0.10)
Dummies :						
Province	X	X	X	X	X	X
Month	-	-	X	X	-	X
1998	-	-	X	X	-	X
All years	X	X	-	-	X	-
Observations	6,683	6,686	2,822	2,830	6,686	2,830
Tests :						
Ramsey RESET (p-value)	-	0.0205	-	0.0224	-	-
Wooldrigde Score of Exogeneity (p-value)	-	-	-	-	0.3703	0.1369
Over-identifying restrictions (p-value)	-	-	-	-	0.4895	0.7384
1st Stage F-Stat	-	-	-	-	81.617	42.922
Hausman (p-value)	-	-	-	-	1.0000	1.0000
*** p<0.01, ** p<0.05, * p<0.1						

Table 12 : Regression results and diagnostics
Dependent variable: Attendance to Religious Services/Meetings (Females)

Key Variables (1)	$dProbit_1$ (2)	OLS_1 (3)	$dProbit_2$ (4)	OLS_2 (5)	IV_1 (6)	IV_2 (7)
Retired	-0.006 (0.02)	-0.007 (0.02)	-0.020 (0.04)	-0.020 (0.04)	0.009 (0.09)	0.128 (0.13)
Age	0.037** (0.02)	0.038** (0.02)	0.026 (0.02)	0.027 (0.02)	0.033 (0.03)	-0.016 (0.04)
Age^2	-0.002 (0.002)	-0.002 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.002 (0.002)	0.001 (0.003)
Excellent	0.077** (0.04)	0.078* (0.04)	0.103* (0.05)	0.105* (0.06)	0.080* (0.04)	0.124** (0.06)
Very Good	0.079** (0.04)	0.078** (0.04)	0.098* (.05)	0.097* (0.06)	0.079** (0.04)	0.110* (0.06)
Good	0.089** (0.04)	0.090** (0.04)	0.126** (0.05)	0.127** (0.06)	0.092** (0.04)	0.145** (0.06)
Fair	0.057 (0.04)	0.057 (0.04)	0.055 (0.05)	0.052 (0.06)	0.058 (0.04)	0.063 (0.06)
Married or Common-law	0.052** (0.03)	0.052** (0.03)	0.042 (0.04)	0.042 (0.04)	0.052** (0.03)	0.042 (0.04)
Weekend	0.004 (0.02)	0.004 (0.02)	0.004 (0.02)	0.007 (0.02)	0.004 (0.02)	0.003 (0.02)
Constant	-	0.539*** (0.06)	-	0.654*** (0.09)	0.543*** (0.07)	0.689*** (0.10)
Dummies :						
Province	X	X	X	X	X	X
Month	-	-	X	X	-	X
1998	-	-	X	X	-	X
All years	X	X	-	-	X	-
Observations	6,946	6,946	2,913	2,916	6,946	2,916
Tests :						
Ramsey RESET (p-value)	-	0.0182	-	0.0953	-	-
Wooldrigde Score of Exogeneity (p-value)	-	-	-	-	0.8097	0.1035
Over-identifying restrictions (p-value)	-	-	-	-	0.0976	0.3715
1st Stage F-Stat	-	-	-	-	77.7563	38.0919
Hausman (p-value)	-	-	-	-	1.0000	1.0000
*** p<0.01, ** p<0.05, * p<0.1						

Section 9: Appendix

Table 13 - OLS Regression Results for Males (Without Month Dummies)							
Variables	Sleep	Exercise	Meal Preparation	Medical Care	Socializing in Homes	Other Socializing	Reading
Retired	26.78***	27.85***	5.554***	0.546	20.08***	8.823***	24.86***
	(5.29)	(3.80)	(1.52)	(1.06)	(5.66)	(2.70)	(3.33)
Age	-2.171	2.982	-2.148*	0.206	5.228	3.430**	4.173**
	(3.55)	(2.53)	(1.11)	(0.37)	(3.85)	(1.56)	(2.08)
Age^2	0.515	-0.642**	0.301**	0.0179	-0.622	-0.468**	0.317
	(0.36)	(0.27)	(0.13)	(0.05)	(0.45)	(0.19)	(0.28)
Weekend	39.74***	9.219***	4.387***	-1.959***	61.75***	10.12***	3.072
	(3.79)	(3.20)	(1.23)	(0.35)	(5.01)	(2.33)	(2.13)
Married or Common-law	8.776	-0.0461	-12.52***	0.256	8.98	-9.862**	-8.788**
	(5.88)	(3.85)	(2.85)	(0.73)	(6.04)	(4.97)	(3.91)
Widowed, Divorced, or Separated	-1.639	4.021	-2.926	-0.48	22.41***	0.39	-8.685*
	(6.69)	(4.30)	(2.95)	(0.87)	(7.26)	(5.49)	(4.59)
Marital Status (Missing)	83.71***	-28.57***	-21.01*	-1.003	-7.415	-18.03***	-13.99
	(12.00)	(5.42)	(12.15)	(0.91)	(22.97)	(5.71)	(28.18)
NL	-13.12*	9.505	-1.504	0.00311	10.12	0.89	-0.189
	(7.14)	(7.98)	(2.09)	(0.87)	(7.61)	(4.04)	(4.10)
PEI	-27.38***	-12.81**	-1.182	-0.198	-3.3	-2.931	11.27**
	(8.82)	(5.40)	(2.97)	(0.73)	(12.31)	(4.96)	(5.64)
NS	-23.62***	-4.89	-2.17	0.533	1.913	3.375	6.388
	(6.49)	(4.95)	(2.05)	(0.86)	(7.44)	(4.25)	(4.60)
NB	-6.562	4.835	4.256	2.494	4.186	-3.152	7.32
	(6.18)	(5.87)	(2.75)	(1.91)	(7.18)	(3.23)	(6.58)
QC	2.55	6.084*	-5.876***	-0.0842	11.42**	0.0499	2.277
	(4.35)	(3.44)	(1.35)	(0.62)	(5.20)	(2.35)	(2.50)
MB	-7.818	1.952	3.471	-0.605	4.72	-0.968	10.42**
	(6.12)	(6.12)	(2.14)	(0.65)	(7.21)	(3.14)	(4.47)
SK	5.054	-7.621*	-3.757**	-0.355	3.255	9.319	-3.211
	(5.60)	(4.39)	(1.76)	(0.67)	(7.41)	(5.86)	(3.34)
AB	10.88**	-3.902	-2.451	0.191	-3.432	1.594	3.31
	(5.39)	(4.24)	(1.77)	(0.93)	(5.88)	(2.74)	(3.96)
BC	12.53**	9.681**	-2.172	1.051	-6.185	-1.508	10.29***
	(4.87)	(4.00)	(1.69)	(0.79)	(5.20)	(3.07)	(3.41)
Urban	-5.162	-3.206	3.428***	0.417	7.916*	-0.413	8.618***
	(3.63)	(3.45)	(1.16)	(0.48)	(4.05)	(2.31)	(2.22)
Home Owner	-9.620*	0.627	1.517	0.612	1.048	-0.534	-0.853

	(4.99)	(3.24)	(1.56)	(0.52)	(6.04)	(2.90)	(2.97)
Home Ownership (Missing)	-0.535	23.57	9.145	1.349*	8.558	-11.77**	11.14
	(26.85)	(27.94)	(10.15)	(0.72)	(73.83)	(5.54)	(11.89)
Fair	16.29*	2.838	2.04	-3.298	1.357	4.727	-8.236
	(9.64)	(5.92)	(3.53)	(2.89)	(10.40)	(5.73)	(6.26)
Good	8.708	6.84	1.916	-4.295	7.306	5.146	-1.22
	(8.68)	(5.61)	(3.40)	(2.84)	(9.93)	(5.17)	(6.07)
Very Good	10.03	14.61**	2.115	-4.366	15.53	3.741	-3.98
	(8.73)	(5.71)	(3.45)	(2.86)	(10.13)	(4.85)	(6.06)
Excellent	0.413	23.04***	2.906	-3.859	16.45	3.773	0.164
	(9.06)	(6.24)	(3.51)	(2.87)	(10.58)	(4.95)	(6.35)
Health Status (Missing)	0.137	21.97	14.3	-5.241*	2.956	1.578	-22.56*
	(25.82)	(26.78)	(10.57)	(2.79)	(44.70)	(11.72)	(13.53)
Secondary Graduate	2.351	-3.946	2.712	0.606	-11.39*	-0.628	15.66***
	(5.23)	(3.33)	(1.68)	(0.85)	(5.92)	(2.49)	(3.08)
Post-Secondary	-7.525*	-1.672	2.748*	0.924*	-7.57	-0.263	17.86***
	(4.39)	(3.36)	(1.44)	(0.54)	(5.06)	(2.48)	(2.66)
College or University Graduate	-2.791	2.226	2.153	1.909***	-1.787	-2.066	26.95***
	(4.80)	(3.46)	(1.55)	(0.74)	(5.42)	(2.13)	(2.76)
Education (Missing)	35.64	-7.603	9.918	-0.118	42.76	-8.19	-0.843
	(23.38)	(15.24)	(7.69)	(0.64)	(67.65)	(6.33)	(11.37)
No Income	6.398	1.55	32.65*	-3.170**	13.78	-9.097	-17.02
	(55.11)	(20.60)	(19.44)	(1.25)	(43.57)	(6.15)	(12.17)
Less than $5,000	24.68	-21.16**	8.762	-2.219	-59.87***	-13.79**	-15.04
	(30.39)	(9.33)	(7.32)	(1.98)	(16.47)	(5.74)	(11.57)
$5,000-$9,999	24.14*	-12.34	4.13	-1.06	-25.06	-1.515	-22.81**
	(14.06)	(9.73)	(4.12)	(1.64)	(15.92)	(7.80)	(9.18)
$10,000-$14,999	8.245	-12.38*	1.971	2.235	-4.827	13.25	-14.43**
	(10.09)	(7.46)	(3.53)	(2.45)	(13.18)	(13.51)	(6.20)
$15,000-$19,999	3.765	-3.9	0.201	-0.201	-6.385	-5.12	-13.59**
	(8.77)	(6.43)	(2.85)	(2.61)	(11.06)	(4.59)	(5.39)
$20,000-$29,999	2.781	-6.789	-1.006	-2	-8.616	0.835	-8.384**
	(7.83)	(5.93)	(2.55)	(1.31)	(9.46)	(3.77)	(3.93)
$30,000-$39,999	-4.674	-9.122*	-2.518	-1.319	-3.693	-0.149	1.135
	(7.07)	(4.86)	(2.35)	(1.44)	(8.22)	(3.69)	(4.17)
$40,000-$49,999	-4.113	-10.45**	-0.478	-1.952	-17.98**	1.187	-0.9
	(6.71)	(4.61)	(2.40)	(1.33)	(7.63)	(3.73)	(4.04)
$50,000-$59,999	0.323	-8.216*	1.693	-2.563**	-16.79**	1.201	5.764
	(7.02)	(4.41)	(2.41)	(1.10)	(7.50)	(3.55)	(3.82)
$80,000 or more	-10.97*	5.971	-0.275	-2.568**	-11.33	1.825	4.371
	(5.78)	(5.10)	(1.87)	(1.13)	(6.91)	(2.52)	(3.22)

Household Income (Missing)	11.05*	-3.04	-3.267*	-2.696**	-17.52**	-1.097	-1.69
	(6.16)	(4.67)	(1.96)	(1.16)	(7.54)	(2.51)	(3.27)
1998	7.155	-2.802	5.633***	0.815	-2.159	-1.6	-7.174**
	(4.42)	(3.85)	(1.42)	(0.70)	(5.35)	(2.57)	(2.96)
2005	21.35***	2.858	5.928***	-0.363	-8.967*	-1.252	-20.68***
	(4.21)	(3.42)	(1.45)	(0.50)	(4.95)	(2.64)	(2.82)
Constant	438.8***	7.612	22.46***	4.685	20.78	8.748	7.321
	(13.70)	(10.36)	(5.10)	(3.30)	(14.97)	(7.98)	(8.59)
Observations	6,686	6,686	6,686	6,686	6,686	6,686	6,686

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 14 - OLS Regression Results for Males (With Month Dummies)

Variables	Sleep	Exercise	Meal Preparation	Medical Care	Sociazling in Homes	Other Socializing	Reading
Retired	26.06***	22.85***	3.661*	0.392	18.86**	12.66***	22.86***
	(6.91)	(5.59)	(2.09)	(1.69)	(8.39)	(4.06)	(5.09)
Age	0.182	2.425	-2.242	0.223	5.169	3.07	6.631**
	(4.92)	(3.87)	(1.57)	(0.54)	(5.70)	(2.26)	(3.23)
Age^2	0.383	-0.618	0.409**	0.0312	-0.594	-0.510*	0.19
	(0.52)	(0.41)	(0.19)	(0.07)	(0.64)	(0.30)	(0.43)
Weekend	47.24***	7.454	4.850***	-2.205***	64.25***	7.198**	1.814
	(5.22)	(4.67)	(1.66)	(0.53)	(7.25)	(3.41)	(3.16)
Married or Common-law	-1.781	3.645	-19.52***	1.115	13.41	-7.996	-13.76**
	(8.31)	(5.44)	(4.00)	(0.87)	(8.42)	(7.78)	(6.26)
Widowed, Divorced, or Separated	-14.8	4.295	-5.441	0.533	31.46***	0.348	-19.15***
	(9.55)	(5.94)	(4.05)	(1.15)	(10.44)	(8.47)	(7.15)
Marital Status (Missing)	49.45***	-9.663	13.90**	1.418	-53.01***	-16.14	-52.04***
	(16.76)	(12.43)	(5.77)	(2.25)	(19.30)	(11.68)	(12.35)
NL	-0.22	16.53	-0.252	-0.126	16.06	7.916	3.386
	(10.11)	(12.40)	(2.87)	(1.37)	(10.98)	(6.25)	(6.29)
PEI	-27.24**	-12.52	-1.978	-1.184	-0.274	1.211	12.55
	(12.97)	(7.90)	(3.95)	(0.95)	(18.56)	(7.11)	(8.84)
NS	-18.91**	-5.973	-3.37	-0.299	0.669	12.08*	8.712
	(9.50)	(7.11)	(2.33)	(1.11)	(9.99)	(6.53)	(6.70)
NB	-0.37	2.957	8.523**	3.393	8.5	2.903	10.07
	(9.05)	(8.67)	(3.74)	(3.12)	(10.58)	(4.83)	(10.21)
QC	9.476	2.803	-7.184***	-1.077	16.82**	0.802	6.360*
	(6.17)	(4.91)	(1.75)	(0.84)	(7.44)	(3.24)	(3.71)
MB	-12.3	0.82	2.664	-1.408	6.955	4.041	14.41**
	(8.71)	(9.33)	(2.91)	(0.96)	(10.91)	(4.73)	(6.40)
SK	9.066	-5.858	-3.728*	-1.036	10.12	14.52*	-0.25
	(7.53)	(6.49)	(2.10)	(0.96)	(10.91)	(8.45)	(4.90)
AB	7.131	-6.457	-1.971	0.364	-2.082	6.096	5.599
	(7.22)	(5.96)	(2.26)	(1.55)	(8.80)	(4.15)	(6.48)
BC	13.28*	10.04*	-4.687**	1.639	0.619	3.486	7.34
	(6.93)	(6.07)	(2.37)	(1.25)	(7.71)	(4.88)	(4.81)
Urban	-8.386*	-3.686	3.031**	0.339	6.527	3.857	8.834***
	(4.96)	(4.88)	(1.49)	(0.80)	(5.90)	(3.06)	(3.14)
Home Owner	-16.74**	-1.065	2.991	0.509	7.459	-5.705	-5.162
	(6.92)	(4.45)	(1.95)	(0.71)	(8.29)	(4.49)	(4.30)
Home Ownership (Missing)	9.872	31.89	18.79	2.786**	-101.6***	-19.10**	33.42**
	(43.70)	(36.95)	(15.72)	(1.38)	(31.59)	(7.74)	(15.87)

Fair	5.514	-0.985	7.233**	-1.778	6.015	2.875	-12.83
	(14.70)	(8.94)	(3.63)	(2.94)	(15.53)	(9.55)	(9.40)
Good	2.13	2.655	7.746**	-2.845	5.318	5.281	-2.651
	(13.23)	(8.31)	(3.30)	(2.69)	(14.82)	(8.64)	(9.15)
Very Good	2.44	8.207	5.747*	-2.711	14.51	3.479	-9.145
	(13.26)	(8.53)	(3.30)	(2.66)	(14.94)	(8.09)	(9.11)
Excellent	-7.183	17.89**	8.353**	-2.173	18.42	3.361	-1.576
	(13.45)	(9.05)	(3.45)	(2.67)	(15.29)	(8.20)	(9.39)
Health Status (Missing)	-37.77	24.98	10.07	-4.313	64.32	7.242	-35.96**
	(31.49)	(40.29)	(8.50)	(2.63)	(54.03)	(18.19)	(18.14)
Secondary Graduate	-1.666	-7.832*	2.879	0.504	-14.40*	0.249	19.83***
	(6.55)	(4.34)	(2.15)	(1.35)	(8.10)	(3.25)	(4.56)
Post-Secondary	-4.92	-0.235	3.757**	0.869	-12.26*	-0.925	20.69***
	(6.05)	(4.71)	(1.78)	(0.87)	(7.20)	(3.46)	(3.78)
College or University Graduate	-1.612	2.37	2.439	1.429	-4.403	-0.876	27.43***
	(7.01)	(5.11)	(2.14)	(1.08)	(7.93)	(2.88)	(4.08)
Education (Missing)	15.65	-4.788	24.79*	-2.04	-3.11	-14.57***	-13.23
	(23.59)	(19.50)	(13.00)	(1.32)	(37.47)	(5.08)	(16.34)
No Income	-63.98	-45.12***	2.31	-2.191	48.31**	-27.16**	-25.74***
	(41.93)	(15.64)	(7.34)	(2.56)	(18.79)	(10.94)	(8.51)
Less than $5,000	18.17	-24.01**	7.142	-0.733	-63.98***	-8.48	-9.824
	(18.42)	(9.99)	(8.75)	(2.63)	(18.11)	(7.17)	(14.92)
$5,000-$9,999	28.20*	-6.212	0.0389	0.101	-30.24	1.92	-29.43***
	(15.79)	(10.95)	(5.02)	(2.07)	(18.83)	(9.23)	(11.30)
$10,000-$14,999	2.881	-6.123	0.844	3.667	-1.265	22.59	-18.43**
	(13.09)	(10.12)	(4.59)	(3.15)	(17.88)	(17.23)	(8.15)
$15,000-$19,999	4.2	4.396	-3.549	1.407	-8.004	-1.92	-15.47**
	(11.92)	(8.39)	(3.46)	(3.53)	(15.06)	(6.19)	(7.11)
$20,000-$29,999	1.938	1.558	-3.99	-1.356	-8.09	2.41	-9.143*
	(11.35)	(8.24)	(3.22)	(1.76)	(13.13)	(4.71)	(5.43)
$30,000-$39,999	-2.557	-7.982	-3.751	0.162	-9.336	-0.466	-0.0813
	(10.28)	(6.56)	(3.17)	(2.06)	(12.04)	(4.53)	(5.85)
$40,000-$49,999	3.098	-10.84*	-4.524	-1.162	-26.99**	3.895	-1.758
	(9.41)	(6.02)	(2.96)	(1.84)	(11.02)	(5.28)	(5.57)
$50,000-$59,999	4.648	-5.037	-0.166	-1.635	-21.32*	4.638	5.214
	(9.57)	(6.03)	(3.48)	(1.48)	(11.15)	(5.23)	(5.33)
$80,000 or more	-6.22	8.169	-1.239	-2.146	-12.82	3.353	4.93
	(9.06)	(8.68)	(2.85)	(1.52)	(11.52)	(3.37)	(5.30)
Household Income (Missing)	10.93	0.326	-5.903**	-2.636*	-22.84**	-0.393	-2.849
	(8.94)	(6.69)	(2.84)	(1.58)	(11.49)	(3.22)	(4.89)
FEB	-19.28*	-2.422	-4.22	0.715	11.35	1.411	-1.317

	(10.28)	(12.20)	(3.44)	(1.62)	(14.30)	(5.79)	(6.16)
MAR	-17.4	-4.818	-4.652	-1.223	5.753	-0.245	-5.407
	(10.70)	(11.78)	(3.39)	(1.08)	(12.96)	(6.18)	(6.90)
APR	-33.29***	-0.863	-2.476	-1.415	10	0.572	8.064
	(10.02)	(12.12)	(3.01)	(1.04)	(12.73)	(5.61)	(8.62)
MAY	-22.71**	-5.52	-6.290**	-0.55	24.43*	2.342	-9.967*
	(9.76)	(11.97)	(3.13)	(1.45)	(13.31)	(6.05)	(6.02)
JUN	-36.25***	-2.205	-4.228	-2.319***	26.93*	12.62	-14.16**
	(10.60)	(12.03)	(3.54)	(0.88)	(14.12)	(9.17)	(5.63)
JUL	-14.05	9.469	-4.596	0.405	34.22***	0.11	2.219
	(12.65)	(12.97)	(3.23)	(1.50)	(13.16)	(6.24)	(6.75)
AUG	-32.62***	14.07	-8.340***	-2.017**	50.86***	-2.888	-2.032
	(10.47)	(12.81)	(2.78)	(0.89)	(17.14)	(5.53)	(6.47)
SEP	-12.21	4.201	-9.320***	1.137	20.47	-1.521	-16.63***
	(10.03)	(13.89)	(2.69)	(1.81)	(13.40)	(5.53)	(5.68)
OCT	-15.35	3.893	-3.606	1.879	20.01	3.746	0.807
	(9.97)	(13.05)	(3.09)	(2.10)	(13.64)	(7.48)	(6.09)
NOV	-5.106	-10.21	-6.626**	-0.887	7.756	0.0242	-0.202
	(11.50)	(12.12)	(2.74)	(1.05)	(12.63)	(5.65)	(6.78)
DEC	-14.6	-8.04	-2.881	-0.0418	-1.094	-2.429	-0.128
	(10.34)	(11.64)	(3.57)	(1.90)	(12.65)	(6.33)	(6.84)
1998	8.358*	-2.557	5.495***	1	-2.806	-1.497	-7.229**
	(4.41)	(4.00)	(1.43)	(0.73)	(5.40)	(2.50)	(2.96)
Constant	470.2***	13.52	29.02***	2.302	-3.679	5.366	15.35
	(21.12)	(19.69)	(6.33)	(3.44)	(25.09)	(14.46)	(14.09)
Observations	2,830	2,830	2,830	2,830	2,830	2,830	2,830

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 15 - OLS Regression Results for Females (Without Month Dummies)

Variables	Sleep	Exercise	Meal Preparation	Medical Care	Socializing in Homes	Other Socializing	Reading
Retired	18.59***	23.71***	8.315***	1.191*	38.04***	4.271	26.82***
	(4.82)	(3.46)	(2.62)	(0.71)	(6.23)	(2.72)	(3.34)
Age	-0.313	-0.805	1.814	0.476	-3.268	1.245	0.851
	(3.28)	(1.76)	(1.58)	(0.59)	(4.56)	(1.81)	(2.21)
Age^2	0.556	-0.304*	-0.173	-0.0467	-0.133	-0.167	0.439
	(0.34)	(0.17)	(0.17)	(0.08)	(0.46)	(0.20)	(0.27)
Weekend	30.99***	2.292	6.990***	-3.152***	43.70***	10.31***	5.800**
	(3.45)	(2.01)	(1.84)	(0.40)	(5.18)	(2.44)	(2.52)
Married or Common-law	7.231	-3.109	12.93***	-2.495**	-8.994	-1.442	-10.59**
	(5.50)	(3.11)	(2.51)	(1.24)	(6.72)	(3.31)	(4.26)
Widowed, Divorced, or Separated	-2.994	-0.542	-0.969	-2.316*	2.457	-1.578	-1.569
	(5.61)	(3.16)	(2.49)	(1.38)	(6.87)	(3.38)	(4.41)
Marital Status (Missing)	19.11	9.483	0.272	-4.136***	-51.11***	17.64	2.254
	(24.56)	(26.81)	(12.95)	(1.46)	(19.12)	(17.81)	(24.32)
NL	7.439	1.922	9.873**	-0.407	14.86	4.532	-16.31***
	(7.50)	(3.83)	(4.64)	(0.94)	(9.14)	(5.20)	(4.15)
PEI	3.134	-1.77	-8.282**	2.891	12.66	0.0604	6.475
	(8.81)	(4.69)	(3.45)	(3.25)	(11.94)	(4.42)	(7.17)
NS	-8.54	3.125	-7.053***	2.127	-1.443	1.98	4.023
	(6.31)	(3.65)	(2.65)	(1.61)	(7.00)	(4.03)	(5.47)
NB	0.991	6.831	-4.902	0.57	4.182	6.319	-6.135
	(6.82)	(4.35)	(3.33)	(1.22)	(8.55)	(5.47)	(4.39)
QC	18.58***	3.784	-0.839	-0.757	16.05***	-2.807	-0.591
	(4.19)	(2.31)	(2.12)	(0.79)	(5.61)	(2.05)	(2.97)
MB	-2.183	1.778	-1.378	0.139	2.907	2.228	-5.044
	(7.05)	(4.18)	(3.00)	(1.07)	(7.41)	(3.81)	(4.15)
SK	7.956	0.707	-0.0214	-0.959	14.08**	9.936**	-7.872*
	(5.59)	(3.21)	(2.77)	(0.76)	(7.16)	(4.88)	(4.02)
AB	10.70**	-1.211	-1.124	-0.521	-6.613	-1.437	1.185
	(4.98)	(2.80)	(2.32)	(0.81)	(6.05)	(2.72)	(3.50)
BC	11.14**	8.738***	-1.2	-1.653**	-2.276	-0.141	5.875
	(4.52)	(2.70)	(2.38)	(0.65)	(5.38)	(2.26)	(3.67)
Urban	-7.336**	0.00644	-2.779	0.547	0.0261	0.09	5.528**
	(3.48)	(1.99)	(1.77)	(0.62)	(4.66)	(1.80)	(2.63)
Home Owner	0.625	0.024	6.274***	-0.051	5.051	-3.527	1.353
	(3.88)	(2.00)	(1.95)	(0.69)	(4.50)	(2.50)	(3.15)
Home Ownership (Missing)	8.378	-16.06***	-4.754	-2.563***	12.61	-12.66***	9.595
	(16.50)	(3.73)	(9.99)	(0.91)	(27.90)	(4.66)	(31.20)

Fair	-9.957	3.995	5.473	-5.091**	4.231	11.02***	1.134
	(10.22)	(3.36)	(3.76)	(2.45)	(9.37)	(2.47)	(6.45)
Good	-16.63*	7.412**	5.452	-5.495**	3.816	10.65***	-0.742
	(9.86)	(3.13)	(3.37)	(2.37)	(8.66)	(1.83)	(5.95)
Very Good	-16.12*	11.15***	3.202	-6.743***	8.047	9.256***	4.91
	(9.79)	(3.12)	(3.36)	(2.35)	(8.82)	(1.79)	(6.03)
Excellent	-23.34**	20.06***	2.211	-5.227**	8.173	17.16***	-0.067
	(10.05)	(3.87)	(3.53)	(2.44)	(8.91)	(2.78)	(6.11)
Health Status (Missing)	-59.07	-5.678	7.044	-8.892***	-12.84	-1.724	19.62
	(61.58)	(4.71)	(15.70)	(2.43)	(26.32)	(2.42)	(27.66)
Secondary Graduate	1.86	0.041	-4.523*	-1.059	-4.431	-1.561	17.56***
	(4.70)	(2.78)	(2.47)	(0.84)	(5.77)	(2.54)	(3.34)
Post-Secondary	-2.645	-0.343	-4.843**	-0.136	4.496	-2.046	20.06***
	(4.59)	(2.53)	(2.46)	(0.85)	(6.08)	(2.24)	(3.30)
College or University Graduate	-1.292	-1.639	-5.967**	-0.18	2.037	-0.714	24.36***
	(4.66)	(2.63)	(2.46)	(0.85)	(5.37)	(2.39)	(3.44)
Education (Missing)	9.445	-5.629	-2.193	-1.097	-12.75	-12.05***	29.66*
	(14.17)	(4.27)	(7.85)	(2.11)	(21.22)	(2.53)	(15.85)
No Income	50.46*	-21.66*	-2.151	-4.374***	-0.722	3.976	-6.836
	(27.57)	(11.71)	(9.49)	(1.39)	(18.76)	(8.01)	(22.87)
Less than $5,000	14.95	-13.37	-0.768	-4.221**	-4.527	-0.349	-18.50*
	(18.72)	(9.94)	(8.55)	(2.04)	(24.54)	(8.68)	(10.11)
$5,000-$9,999	13.47	-11.88**	3.893	-4.344***	1.174	7.521	-20.58***
	(10.61)	(5.38)	(5.23)	(1.64)	(13.25)	(6.16)	(6.96)
$10,000-$14,999	13.47	-9.713**	5.319	-1.703	6.639	1.018	-19.92***
	(8.94)	(4.91)	(3.67)	(2.12)	(10.60)	(3.39)	(6.38)
$15,000-$19,999	14.73*	-13.62***	13.22***	-3.580**	3.465	3.902	-3.397
	(7.99)	(4.91)	(4.24)	(1.55)	(9.89)	(3.89)	(8.03)
$20,000-$29,999	4.328	-12.15***	1.247	-1.332	2.651	4.078	-6.497
	(7.71)	(4.50)	(2.98)	(1.45)	(8.77)	(2.79)	(5.48)
$30,000-$39,999	11.58	-7.763*	6.412**	-0.0619	4.718	3.264	-1.823
	(7.46)	(4.52)	(3.21)	(1.74)	(8.71)	(2.92)	(5.51)
$40,000-$49,999	7.705	-9.762**	5.451	-0.872	3.406	3.318	-0.133
	(7.30)	(4.25)	(3.69)	(1.55)	(8.70)	(2.96)	(5.33)
$50,000-$59,999	12.06*	-5.348	1.972	-1.547	1.53	6.591*	2.957
	(7.27)	(4.36)	(3.70)	(1.39)	(8.33)	(3.79)	(5.97)
$80,000 or more	2.721	0.463	-0.36	-1.242	-1.44	5.034	-3.709
	(6.36)	(4.14)	(2.82)	(1.52)	(7.53)	(3.66)	(4.58)
Household Income (Missing)	13.22**	-9.408**	4.617	-2.093	1.022	7.305***	-11.49***
	(6.16)	(3.78)	(2.84)	(1.50)	(7.96)	(2.59)	(4.37)
1998	-4.03	-0.815	1.978	2.013**	0.158	4.913**	-2.426

	(4.45)	(2.69)	(2.13)	(0.83)	(6.36)	(2.30)	(3.42)
2005	11.10**	1.948	1.179	-0.0926	-7.408	4.649**	-11.27***
	(4.34)	(2.47)	(2.07)	(0.77)	(6.31)	(2.15)	(3.33)
Constant	460.7***	14.89**	21.94***	11.25***	51.99***	-7.988*	15.24*
	(13.97)	(6.81)	(5.54)	(3.54)	(15.00)	(4.50)	(9.25)
Observations	6,946	6,946	6,946	6,946	6,946	6,946	6,946

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 16 - OLS Regression Results for Females (With Month Dummies)

Variables	Sleep	Exercise	Meal Preparation	Medical Care	Socializing in Homes	Other Socializing	Reading
Retired	18.18**	24.88***	10.71***	0.97	43.37***	8.110**	25.24***
	(7.46)	(5.78)	(3.70)	(1.10)	(9.81)	(3.87)	(5.03)
Age	-1.783	-1.91	1.476	0.498	-5.817	0.627	-0.857
	(4.86)	(2.81)	(2.23)	(0.91)	(7.06)	(2.38)	(3.41)
Age^2	0.699	-0.311	-0.209	-0.0116	-0.0964	-0.195	0.544
	(0.51)	(0.26)	(0.23)	(0.13)	(0.68)	(0.27)	(0.40)
Weekend	31.38***	2.9	5.987**	-3.968***	40.16***	7.524**	2.364
	(4.81)	(2.99)	(2.62)	(0.59)	(8.09)	(3.07)	(3.77)
Married or Common-law	1.702	-2.272	14.30***	-2.417*	-5.558	1.825	-6.009
	(7.81)	(4.73)	(3.71)	(1.46)	(10.29)	(3.99)	(6.52)
Widowed, Divorced, or Separated	-1.331	3.093	0.968	-1.837	5.729	0.974	4.947
	(7.75)	(4.73)	(3.59)	(1.51)	(10.52)	(4.10)	(6.53)
Marital Status (Missing)	12.06	32.43	-3.908	-4.316*	-51.19	30.39	-21.46
	(32.86)	(44.02)	(22.73)	(2.26)	(37.62)	(22.56)	(49.83)
NL	9.792	-0.91	16.57**	-1.038	5.345	10.7	-15.44**
	(9.90)	(5.39)	(6.87)	(1.13)	(12.80)	(8.67)	(6.57)
PEI	17.55	-8.603	-6.51	6.705	14.83	-5.403	12.27
	(13.67)	(6.41)	(5.25)	(5.87)	(19.00)	(6.35)	(12.08)
NS	-9.546	2.331	-3.894	3.449	-9.094	2.607	4.832
	(8.82)	(5.67)	(3.92)	(2.62)	(9.66)	(6.14)	(7.76)
NB	-0.0135	9.727	-0.988	-2.156**	2.679	14.69	-12.95**
	(10.41)	(7.02)	(5.05)	(0.87)	(13.14)	(9.38)	(6.00)
QC	20.51***	3.955	0.532	-2.286**	17.91**	-4.34	-2.429
	(6.11)	(3.40)	(3.00)	(1.14)	(8.62)	(2.80)	(4.62)
MB	0.623	5.4	-1.927	-0.298	3.718	-3.945	-8.781
	(8.68)	(7.32)	(4.19)	(1.61)	(11.43)	(3.83)	(5.68)
SK	6.304	-3.774	1.332	-1.436	16.85	9.211	-11.64**
	(7.56)	(3.80)	(3.73)	(1.06)	(10.96)	(5.60)	(5.33)
AB	5.425	1.237	1.098	-1.156	-12.22	0.748	2.454
	(6.98)	(4.27)	(3.27)	(1.21)	(9.25)	(4.12)	(5.36)
BC	10.94*	10.36***	-3.774	-1.953**	-3.851	-1.323	9.945*
	(6.30)	(3.96)	(3.34)	(0.99)	(7.97)	(3.10)	(5.50)
Urban	-11.58**	-2.189	-4.238*	1.357*	2.135	-0.0942	6.341*
	(4.83)	(2.95)	(2.43)	(0.81)	(6.44)	(2.39)	(3.66)
Home Owner	2.611	0.607	5.459**	0.236	5.347	-5.139	1.23
	(5.33)	(2.75)	(2.69)	(0.98)	(6.40)	(3.83)	(4.38)
Home Ownership (Missing)	-3.036	-13.37**	16.14	-4.184**	1.398	-13.05**	59.24
	(19.43)	(5.38)	(13.52)	(1.84)	(25.60)	(5.48)	(58.71)

Fair	-10.34	4.296	-1.204	-4.747*	11.18	12.63***	-2.476
	(14.43)	(4.82)	(5.57)	(2.62)	(13.07)	(3.69)	(9.39)
Good	-11.36	7.628*	0.268	-5.423**	12.96	11.54***	-4.211
	(14.00)	(4.30)	(4.97)	(2.48)	(11.82)	(2.67)	(8.81)
Very Good	-17.2	9.397**	-2.422	-6.740***	19.41	8.935***	0.223
	(13.80)	(4.15)	(5.04)	(2.48)	(11.98)	(2.37)	(8.88)
Excellent	-22.86	17.07***	-5.259	-4.830*	19.24	16.43***	-6.372
	(14.08)	(5.20)	(5.16)	(2.69)	(11.89)	(3.88)	(8.91)
Health Status (Missing)	-107.5*	-12.77	-1.778	-8.259**	-14.95	-5.755	8.444
	(63.65)	(8.21)	(20.46)	(3.31)	(40.37)	(4.65)	(32.16)
Secondary Graduate	6.379	-3.123	-3.384	-2.140*	-10.07	-2.357	22.44***
	(6.50)	(3.96)	(2.96)	(1.25)	(8.10)	(3.42)	(4.72)
Post-Secondary	1.408	-4.256	-3.082	-1.04	1.162	-2.712	25.68***
	(6.32)	(3.52)	(3.07)	(1.16)	(8.86)	(2.88)	(4.76)
College or University Graduate	1.037	-3.35	-3.569	-0.809	0.00375	-0.171	29.34***
	(6.58)	(3.81)	(3.21)	(1.31)	(7.82)	(3.63)	(5.03)
Education (Missing)	6.712	-5.842	-5.145	-5.818***	18.2	-15.49***	11.11
	(22.97)	(5.50)	(9.66)	(1.82)	(33.49)	(4.19)	(17.90)
No Income	26.62	-56.27***	-3.863	-4.327	-30.53	65.32**	62.35
	(44.54)	(17.34)	(11.80)	(3.21)	(62.49)	(32.11)	(66.96)
Less than $5,000	31.36	-10.65	-5.653	-4.826	-5.071	5.299	-27.13**
	(19.93)	(13.97)	(10.67)	(3.01)	(36.68)	(10.75)	(13.10)
$5,000-$9,999	17.04	-9.571	3.495	-6.830**	3.186	9.252	-19.03**
	(14.00)	(7.05)	(5.50)	(2.78)	(17.06)	(7.77)	(9.65)
$10,000-$14,999	15.07	-9.296	6.792	-4.842*	16.54	-1.463	-20.27**
	(12.48)	(6.91)	(4.91)	(2.58)	(15.97)	(4.66)	(9.40)
$15,000-$19,999	14.71	-9.121	14.46**	-4.541*	7.883	6.004	-3.09
	(11.61)	(7.05)	(5.81)	(2.43)	(15.01)	(5.68)	(11.81)
$20,000-$29,999	6.828	-6.019	3.475	-3.05	4.182	3.774	-9.78
	(11.33)	(6.75)	(4.18)	(2.27)	(13.18)	(3.95)	(8.46)
$30,000-$39,999	25.15**	-1.143	9.663**	0.35	7.271	3.384	-4.539
	(10.88)	(6.83)	(4.71)	(3.00)	(13.58)	(4.02)	(8.70)
$40,000-$49,999	8.824	-10.94*	3.415	-2.085	11.08	3.705	-2.931
	(10.22)	(5.94)	(5.49)	(2.41)	(13.44)	(4.01)	(8.33)
$50,000-$59,999	21.83*	-2.221	5.175	-1.413	5.227	5.446	9.44
	(11.61)	(6.46)	(5.66)	(2.36)	(12.78)	(5.95)	(10.17)
$80,000 or more	3.092	7.435	3.668	-1.314	-3.594	7.013	-10.45
	(10.29)	(6.52)	(4.62)	(2.82)	(12.77)	(5.48)	(8.13)
Household Income (Missing)	14.48	-5.866	6.246	-3.744	2.81	7.780**	-14.32**
	(9.32)	(5.80)	(3.99)	(2.59)	(13.17)	(3.92)	(7.15)
FEB	-6.511	6.447	-0.895	-0.827	-3.581	-5.221	6.657

	(11.84)	(5.56)	(4.86)	(1.82)	(13.13)	(6.23)	(7.55)
MAR	-9.003	11.88**	-4.342	0.606	-1.837	-5.609	-3.354
	(11.11)	(5.77)	(5.52)	(2.80)	(17.11)	(6.40)	(7.47)
APR	-3.519	9.020**	-4.518	-1.898	1.317	-1.638	-2.089
	(10.94)	(4.45)	(5.12)	(1.45)	(11.66)	(7.17)	(8.24)
MAY	-7.559	14.61***	-0.364	-0.713	6.529	-8.73	-2.093
	(10.26)	(4.93)	(4.82)	(2.00)	(12.40)	(5.90)	(6.96)
JUN	-9.443	11.35**	-5.683	-1.917	-4.701	2.624	3.818
	(10.28)	(5.74)	(5.09)	(1.65)	(11.60)	(8.22)	(7.98)
JUL	-8.162	19.13***	-3.263	-1.183	32.92**	4.748	8.669
	(10.16)	(5.69)	(4.76)	(1.67)	(14.45)	(7.49)	(7.45)
AUG	-4.988	24.61***	-0.939	-2.607*	25.23*	0.94	1.226
	(10.50)	(6.41)	(4.82)	(1.52)	(13.79)	(6.56)	(7.71)
SEP	-10.72	9.669*	8.352	-0.877	-5.261	-8.561	19.75**
	(10.11)	(5.23)	(6.18)	(1.79)	(13.27)	(6.50)	(9.02)
OCT	-4.31	11.25**	2.571	-2.504*	-0.721	-5.742	0.151
	(10.87)	(5.42)	(5.41)	(1.42)	(11.46)	(6.40)	(8.24)
NOV	15.2	8.933*	-2.964	0.401	-9.54	-8.459	-3.133
	(10.25)	(4.88)	(4.91)	(2.35)	(11.22)	(6.41)	(7.06)
DEC	-16.25	6.881	-4.32	-1.339	-6.951	-1.608	-2.475
	(10.45)	(4.78)	(4.78)	(1.99)	(11.36)	(6.70)	(6.84)
1998	-2.866	-1.286	2.173	2.002**	-0.219	4.805**	-1.168
	(4.43)	(2.72)	(2.13)	(0.84)	(6.49)	(2.30)	(3.43)
Constant	465.7***	5.661	26.80***	12.99***	42.24*	-4.604	16.28
	(22.56)	(10.20)	(8.69)	(4.58)	(22.86)	(7.69)	(14.26)
Observations	2,916	2,916	2,916	2,916	2,916	2,916	2,916

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 17 - IV Regression Results for Males (Without Month Dummies)

Variables	Sleep	Exercise	Meal Preparation	Medical Care	Socializing in Homes	Other Socializing	Reading
Retired	18.16	25.55*	-0.34	3.349	-16.95	4.721	9.989
	(17.00)	(13.67)	(5.64)	(2.72)	(22.37)	(10.28)	(11.91)
Age	-0.261	3.493	-0.841	-0.415	13.44**	4.339	7.470**
	(5.29)	(4.09)	(1.70)	(0.48)	(6.17)	(2.72)	(2.98)
Age^2	0.446	-0.660**	0.254*	0.0404	-0.920*	-0.501**	0.197
	(0.40)	(0.31)	(0.14)	(0.04)	(0.48)	(0.21)	(0.27)
Weekend	39.78***	9.230***	4.415***	-1.973***	61.92***	10.14***	3.142
	(3.77)	(3.18)	(1.23)	(0.35)	(5.00)	(2.33)	(2.12)
Married or Common-law	8.68	-0.0716	-12.58***	0.287	8.571	-9.907**	-8.952**
	(5.88)	(3.86)	(2.84)	(0.73)	(6.15)	(4.96)	(3.90)
Widowed, Divorced, or Separated	-1.996	3.926	-3.171	-0.364	20.87***	0.22	-9.302**
	(6.70)	(4.38)	(2.97)	(0.87)	(7.41)	(5.53)	(4.62)
Marital Status (Missing)	81.13***	-29.26***	-22.78*	-0.163	-18.51	-19.26***	-18.45
	(12.99)	(6.87)	(12.13)	(1.11)	(24.57)	(6.53)	(28.56)
NL	-12.71*	9.614	-1.224	-0.13	11.88	1.084	0.516
	(7.25)	(8.05)	(2.10)	(0.90)	(7.62)	(4.05)	(4.09)
PEI	-27.79***	-12.92**	-1.459	-0.066	-5.044	-3.124	10.57*
	(8.84)	(5.40)	(3.00)	(0.73)	(12.11)	(4.94)	(5.77)
NS	-23.40***	-4.829	-2.016	0.46	2.877	3.482	6.775
	(6.52)	(4.95)	(2.05)	(0.87)	(7.49)	(4.27)	(4.59)
NB	-6.458	4.863	4.328	2.46	4.635	-3.102	7.5
	(6.17)	(5.85)	(2.75)	(1.90)	(7.22)	(3.21)	(6.58)
QC	2.588	6.094*	-5.850***	-0.0968	11.59**	0.0683	2.344
	(4.35)	(3.43)	(1.35)	(0.62)	(5.19)	(2.35)	(2.50)
MB	-7.947	1.918	3.383	-0.564	4.169	-1.029	10.20**
	(6.10)	(6.09)	(2.13)	(0.65)	(7.21)	(3.13)	(4.49)
SK	4.764	-7.698*	-3.955**	-0.261	2.008	9.181	-3.712
	(5.57)	(4.38)	(1.77)	(0.67)	(7.52)	(5.77)	(3.35)
AB	10.56**	-3.987	-2.668	0.295	-4.795	1.443	2.762
	(5.37)	(4.25)	(1.77)	(0.91)	(6.01)	(2.73)	(3.89)
BC	12.74***	9.736**	-2.032	0.984	-5.305	-1.411	10.65***
	(4.92)	(3.99)	(1.69)	(0.81)	(5.16)	(3.04)	(3.44)
Urban	-5.204	-3.217	3.399***	0.431	7.733*	-0.434	8.545***
	(3.62)	(3.43)	(1.15)	(0.48)	(4.05)	(2.30)	(2.21)
Home Owner	-9.243*	0.728	1.775	0.489	2.67	-0.354	-0.202
	(5.02)	(3.32)	(1.60)	(0.54)	(6.16)	(2.92)	(3.00)
Home Ownership (Missing)	0.116	23.74	9.59	1.138	11.36	-11.46**	12.26
	(26.75)	(27.89)	(10.16)	(0.76)	(74.46)	(5.55)	(11.75)

Fair	15.26	2.564	1.34	-2.965	-3.039	4.24	-10
	(9.87)	(6.08)	(3.57)	(2.93)	(11.06)	(5.75)	(6.44)
Good	7.526	6.524	1.107	-3.911	2.227	4.583	-3.259
	(9.06)	(5.88)	(3.44)	(2.89)	(10.68)	(5.29)	(6.26)
Very Good	8.726	14.26**	1.221	-3.94	9.909	3.118	-6.236
	(9.12)	(5.92)	(3.54)	(2.93)	(10.91)	(4.96)	(6.36)
Excellent	-1.135	22.62***	1.846	-3.355	9.792	3.036	-2.508
	(9.50)	(6.69)	(3.62)	(2.96)	(11.66)	(5.21)	(6.77)
Health Status (Missing)	-0.463	21.81	13.89	-5.046*	0.379	1.292	-23.59*
	(25.97)	(26.74)	(10.72)	(2.82)	(45.49)	(11.62)	(13.53)
Secondary Graduate	2.466	-3.916	2.791*	0.568	-10.90*	-0.573	15.86***
	(5.20)	(3.31)	(1.69)	(0.86)	(5.94)	(2.48)	(3.11)
Post-Secondary	-7.380*	-1.633	2.847**	0.876	-6.945	-0.194	18.11***
	(4.36)	(3.33)	(1.44)	(0.55)	(5.11)	(2.47)	(2.65)
College or University Graduate	-2.531	2.296	2.331	1.825**	-0.669	-1.942	27.40***
	(4.81)	(3.39)	(1.58)	(0.74)	(5.41)	(2.17)	(2.81)
Education (Missing)	35.72	-7.583	9.971	-0.143	43.1	-8.154	-0.71
	(23.07)	(15.12)	(7.67)	(0.70)	(66.54)	(6.19)	(11.13)
No Income	8.497	2.111	34.09*	-3.853**	22.81	-8.098	-13.4
	(55.54)	(20.80)	(19.54)	(1.54)	(44.48)	(6.60)	(11.14)
Less than $5,000	26.77	-20.61**	10.19	-2.896	-50.91***	-12.80**	-11.45
	(30.93)	(9.82)	(7.59)	(2.14)	(15.61)	(5.93)	(12.47)
$5,000-$9,999	26.16*	-11.8	5.514	-1.718	-16.37	-0.552	-19.31**
	(14.52)	(9.95)	(4.19)	(1.84)	(17.26)	(8.15)	(9.37)
$10,000-$14,999	10.19	-11.86	3.3	1.602	3.524	14.17	-11.07*
	(10.71)	(8.30)	(3.61)	(2.63)	(14.06)	(13.60)	(6.68)
$15,000-$19,999	5.298	-3.49	1.25	-0.7	0.204	-4.39	-10.95*
	(9.33)	(6.70)	(2.87)	(2.65)	(11.59)	(4.91)	(5.92)
$20,000-$29,999	4.315	-6.379	0.0429	-2.499	-2.024	1.565	-5.736
	(8.31)	(6.51)	(2.58)	(1.52)	(10.34)	(4.35)	(4.40)
$30,000-$39,999	-3.808	-8.891*	-1.925	-1.601	0.0284	0.264	2.63
	(7.35)	(4.97)	(2.38)	(1.46)	(8.52)	(3.89)	(4.33)
$40,000-$49,999	-3.434	-10.26**	-0.0139	-2.173	-15.06*	1.51	0.271
	(6.85)	(4.71)	(2.39)	(1.39)	(7.81)	(3.73)	(4.14)
$50,000-$59,999	0.458	-8.179*	1.786	-2.607**	-16.20**	1.266	5.999
	(7.02)	(4.40)	(2.41)	(1.11)	(7.52)	(3.55)	(3.83)
$80,000 or more	-11.44**	5.845	-0.597	-2.415**	-13.35*	1.601	3.56
	(5.83)	(5.18)	(1.93)	(1.08)	(7.05)	(2.51)	(3.21)
Household Income (Missing)	11.60*	-2.895	-2.895	-2.873**	-15.18**	-0.838	-0.751
	(6.19)	(4.73)	(1.93)	(1.21)	(7.66)	(2.61)	(3.36)
1998	7.299*	-2.763	5.731***	0.769	-1.543	-1.532	-6.927**

	(4.42)	(3.86)	(1.42)	(0.68)	(5.37)	(2.56)	(2.98)
2005	21.31***	2.85	5.906***	-0.352	-9.105*	-1.267	-20.74***
	(4.20)	(3.40)	(1.46)	(0.50)	(4.95)	(2.64)	(2.82)
Constant	437.3***	7.188	21.38***	5.2	13.97	7.994	4.586
	(14.08)	(10.62)	(5.13)	(3.29)	(15.52)	(8.18)	(8.78)
Observations	6,686	6,686	6,686	6,686	6,686	6,686	6,686

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 18 - IV Regression Results for Males (With Month Dummies)

Variables	Sleep	Exercise	Meal Preparation	Medical Care	Socializing in Homes	Other Socializing	Reading
Retired	9.704	13.89	-3.634	4.941	-29.29	-1.711	6.617
	(22.68)	(18.34)	(7.39)	(4.26)	(31.13)	(14.38)	(16.97)
Age	4.018	4.526	-0.531	-0.844	16.46*	6.442	10.44**
	(7.38)	(6.06)	(2.36)	(0.72)	(9.29)	(4.02)	(4.63)
Age^2	0.221	-0.707	0.337*	0.076	-1.069	-0.652**	0.0296
	(0.58)	(0.47)	(0.20)	(0.06)	(0.72)	(0.33)	(0.43)
Weekend	47.19***	7.429	4.829***	-2.192***	64.11***	7.157**	1.768
	(5.16)	(4.63)	(1.64)	(0.53)	(7.19)	(3.39)	(3.15)
Married or Common-law	-1.992	3.529	-19.61***	1.174	12.79	-8.181	-13.97**
	(8.31)	(5.45)	(3.97)	(0.87)	(8.68)	(7.72)	(6.18)
Widowed, Divorced, or Separated	-15.73	3.785	-5.856	0.792	28.72***	-0.47	-20.07***
	(9.58)	(6.06)	(4.13)	(1.16)	(10.82)	(8.50)	(7.18)
Marital Status (Missing)	42.79**	-13.31	10.93	3.27	-72.62***	-21.99*	-58.65***
	(18.60)	(15.23)	(7.00)	(2.55)	(24.01)	(13.09)	(13.23)
NL	0.787	17.08	0.198	-0.406	19.03*	8.802	4.387
	(10.40)	(12.49)	(2.85)	(1.43)	(10.99)	(6.19)	(6.28)
PEI	-27.97**	-12.91*	-2.301	-0.982	-2.406	0.575	11.83
	(12.97)	(7.83)	(4.01)	(0.95)	(17.93)	(7.03)	(9.03)
NS	-18.59*	-5.798	-3.228	-0.387	1.61	12.36*	9.03
	(9.49)	(7.04)	(2.31)	(1.14)	(9.96)	(6.52)	(6.66)
NB	-0.26	3.017	8.572**	3.363	8.824	3	10.18
	(8.98)	(8.61)	(3.73)	(3.09)	(10.65)	(4.77)	(10.18)
QC	9.71	2.931	-7.080***	-1.142	17.51**	1.007	6.592*
	(6.16)	(4.90)	(1.74)	(0.87)	(7.38)	(3.26)	(3.71)
MB	-12.82	0.536	2.432	-1.263	5.427	3.585	13.89**
	(8.63)	(9.21)	(2.89)	(0.94)	(10.87)	(4.68)	(6.42)
SK	8.427	-6.208	-4.013*	-0.858	8.239	13.96*	-0.884
	(7.47)	(6.44)	(2.12)	(0.95)	(11.07)	(8.23)	(4.87)
AB	6.488	-6.809	-2.258	0.542	-3.976	5.531	4.96
	(7.13)	(5.93)	(2.26)	(1.50)	(9.06)	(4.13)	(6.25)
BC	13.83**	10.34*	-4.439*	1.484	2.259	3.976	7.893
	(6.99)	(6.06)	(2.37)	(1.29)	(7.65)	(4.79)	(4.81)
Urban	-8.576*	-3.79	2.946**	0.391	5.968	3.69	8.645***
	(4.92)	(4.81)	(1.48)	(0.81)	(5.87)	(3.06)	(3.11)
Home Owner	-15.95**	-0.632	3.344*	0.289	9.788	-5.009	-4.376
	(6.94)	(4.58)	(2.00)	(0.74)	(8.47)	(4.52)	(4.29)
Home Ownership (Missing)	9.751	31.83	18.73	2.820**	-102.0***	-19.20**	33.30**
	(43.45)	(36.85)	(15.35)	(1.43)	(32.27)	(7.79)	(15.68)

Fair	3.4	-2.144	6.290*	-1.19	-0.209	1.017	-14.93
	(15.04)	(9.10)	(3.80)	(2.95)	(16.76)	(9.56)	(9.67)
Good	-0.5	1.214	6.573*	-2.113	-2.425	2.969	-5.262
	(13.75)	(8.79)	(3.54)	(2.75)	(16.37)	(8.66)	(9.46)
Very Good	-0.718	6.477	4.339	-1.832	5.214	0.703	-12.28
	(13.99)	(8.86)	(3.67)	(2.80)	(16.76)	(8.19)	(9.75)
Excellent	-10.7	15.96	6.785*	-1.196	8.072	0.272	-5.065
	(14.23)	(9.87)	(3.85)	(2.85)	(17.55)	(8.41)	(10.22)
Health Status (Missing)	-38.52	24.57	9.735	-4.105	62.12	6.585	-36.70**
	(31.54)	(39.90)	(8.49)	(2.65)	(54.56)	(17.74)	(17.83)
Secondary Graduate	-1.313	-7.638*	3.037	0.406	-13.36*	0.559	20.18***
	(6.52)	(4.31)	(2.15)	(1.38)	(8.11)	(3.22)	(4.61)
Post-Secondary	-4.351	0.0768	4.011**	0.711	-10.59	-0.425	21.25***
	(5.97)	(4.63)	(1.82)	(0.91)	(7.33)	(3.46)	(3.74)
College or University Graduate	-0.827	2.8	2.789	1.211	-2.094	-0.186	28.21***
	(7.05)	(5.03)	(2.20)	(1.11)	(7.90)	(3.09)	(4.22)
Education (Missing)	16.74	-4.19	25.28**	-2.344	0.104	-13.61***	-12.15
	(23.22)	(19.15)	(12.61)	(1.54)	(38.41)	(4.78)	(15.68)
No Income	-58.4	-42.06***	4.802	-3.745	64.76***	-22.25**	-20.19**
	(40.09)	(15.29)	(8.46)	(3.13)	(24.66)	(11.07)	(9.67)
Less than $5,000	21.08	-22.41**	8.442	-1.544	-55.39***	-5.917	-6.929
	(19.63)	(10.58)	(8.99)	(2.74)	(16.42)	(6.61)	(15.92)
$5,000-$9,999	32.16*	-4.043	1.805	-1	-18.58	5.4	-25.50**
	(16.62)	(11.57)	(5.04)	(2.47)	(20.74)	(9.76)	(11.58)
$10,000-$14,999	6.899	-3.922	2.636	2.549	10.57	26.13	-14.44
	(14.09)	(11.61)	(4.60)	(3.49)	(19.36)	(17.30)	(8.92)
$15,000-$19,999	7.202	6.041	-2.209	0.571	0.836	0.719	-12.49
	(12.70)	(8.85)	(3.47)	(3.67)	(15.67)	(6.67)	(7.86)
$20,000-$29,999	5.19	3.339	-2.54	-2.26	1.484	5.269	-5.914
	(12.05)	(9.16)	(3.26)	(2.17)	(14.32)	(5.79)	(6.18)
$30,000-$39,999	-0.759	-6.997	-2.949	-0.338	-4.042	1.114	1.704
	(10.66)	(6.75)	(3.17)	(2.07)	(12.58)	(4.86)	(6.02)
$40,000-$49,999	4.378	-10.13	-3.953	-1.518	-23.22**	5.02	-0.487
	(9.55)	(6.20)	(2.94)	(1.94)	(11.24)	(5.24)	(5.64)
$50,000-$59,999	4.622	-5.051	-0.177	-1.628	-21.39*	4.615	5.189
	(9.50)	(5.99)	(3.47)	(1.47)	(11.12)	(5.20)	(5.32)
$80,000 or more	-7.312	7.571	-1.726	-1.842	-16.03	2.393	3.846
	(9.17)	(8.82)	(2.96)	(1.41)	(11.68)	(3.33)	(5.26)
Household Income (Missing)	12.37	1.115	-5.261*	-3.037*	-18.6	0.874	-1.418
	(9.17)	(6.83)	(2.76)	(1.73)	(11.80)	(3.49)	(5.08)
FEB	-20.00*	-2.814	-4.539	0.914	9.247	0.781	-2.028

	(10.22)	(11.96)	(3.43)	(1.61)	(14.54)	(5.83)	(6.16)
MAR	-16.57	-4.362	-4.28	-1.455	8.203	0.486	-4.58
	(10.52)	(11.97)	(3.44)	(1.12)	(12.97)	(6.23)	(6.83)
APR	-33.47***	-0.962	-2.557	-1.365	9.466	0.412	7.884
	(9.93)	(11.99)	(3.01)	(1.03)	(12.63)	(5.55)	(8.52)
MAY	-22.62**	-5.474	-6.252**	-0.573	24.68*	2.416	-9.883
	(9.67)	(11.91)	(3.10)	(1.44)	(13.15)	(6.01)	(6.04)
JUN	-36.61***	-2.403	-4.389	-2.218**	25.86*	12.3	-14.52**
	(10.51)	(11.85)	(3.56)	(0.88)	(14.03)	(9.16)	(5.64)
JUL	-13.72	9.653	-4.447	0.312	35.21***	0.405	2.552
	(12.47)	(13.00)	(3.24)	(1.49)	(13.01)	(6.20)	(6.75)
AUG	-33.04***	13.84	-8.529***	-1.899**	49.61***	-3.262	-2.454
	(10.35)	(12.62)	(2.77)	(0.89)	(16.66)	(5.54)	(6.48)
SEP	-12.48	4.055	-9.439***	1.211	19.68	-1.756	-16.90***
	(9.89)	(13.70)	(2.67)	(1.81)	(13.38)	(5.51)	(5.69)
OCT	-14.94	4.114	-3.426	1.767	21.2	4.101	1.208
	(9.96)	(13.05)	(3.07)	(2.05)	(13.52)	(7.41)	(6.16)
NOV	-5.3	-10.32	-6.712**	-0.833	7.187	-0.146	-0.394
	(11.38)	(11.97)	(2.73)	(1.04)	(12.60)	(5.63)	(6.78)
DEC	-14.71	-8.102	-2.932	-0.0105	-1.425	-2.527	-0.239
	(10.20)	(11.53)	(3.52)	(1.93)	(12.56)	(6.29)	(6.88)
1998	8.647**	-2.399	5.624***	0.92	-1.957	-1.244	-6.943**
	(4.39)	(4.00)	(1.42)	(0.70)	(5.44)	(2.48)	(2.96)
Constant	467.2***	11.92	27.71***	3.116	-12.29	2.794	12.45
	(21.42)	(20.41)	(6.17)	(3.50)	(25.40)	(14.57)	(14.22)
Observations	2,830	2,830	2,830	2,830	2,830	2,830	2,830

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 19 - IV Regression Results for Females (Without Month Dummies)

Variables	Sleep	Exercise	Meal Preparation	Medical Care	Socializing in Homes	Other Socializing	Reading
Retired	24.87	12.16	7.017	6.217*	5.755	18.00*	20.58
	(19.14)	(11.81)	(9.93)	(3.63)	(23.52)	(9.48)	(13.44)
Age	-2.139	2.553	2.191	-0.985	6.113	-2.743	2.665
	(6.49)	(3.88)	(3.22)	(0.91)	(8.29)	(3.46)	(4.10)
Age^2	0.648	-0.474*	-0.192	0.0272	-0.607	0.0349	0.347
	(0.46)	(0.26)	(0.22)	(0.07)	(0.59)	(0.26)	(0.30)
Weekend	30.90***	2.466	7.010***	-3.228***	44.19***	10.10***	5.894**
	(3.45)	(1.99)	(1.82)	(0.41)	(5.18)	(2.42)	(2.50)
Married or Common-law	7.135	-2.933	12.95***	-2.571**	-8.501	-1.651	-10.50**
	(5.50)	(3.11)	(2.52)	(1.24)	(6.69)	(3.32)	(4.25)
Widowed, Divorced, or Separated	-2.692	-1.097	-1.032	-2.075	0.906	-0.919	-1.869
	(5.68)	(3.19)	(2.54)	(1.36)	(7.03)	(3.45)	(4.47)
Marital Status (Missing)	19.07	9.558	0.28	-4.169***	-50.90***	17.55	2.294
	(24.29)	(26.71)	(12.94)	(1.51)	(17.74)	(17.56)	(24.33)
NL	7.396	2	9.881**	-0.441	15.08*	4.439	-16.27***
	(7.47)	(3.86)	(4.63)	(0.95)	(9.13)	(5.21)	(4.13)
PEI	3.124	-1.752	-8.280**	2.883	12.71	0.0386	6.485
	(8.75)	(4.64)	(3.43)	(3.25)	(11.98)	(4.47)	(7.16)
NS	-8.472	3	-7.067***	2.181	-1.791	2.128	3.955
	(6.31)	(3.65)	(2.65)	(1.61)	(7.01)	(4.03)	(5.46)
NB	1.268	6.32	-4.959	0.791	2.756	6.925	-6.41
	(6.87)	(4.42)	(3.39)	(1.22)	(8.67)	(5.42)	(4.47)
QC	18.54***	3.847*	-0.832	-0.784	16.23***	-2.882	-0.557
	(4.18)	(2.29)	(2.10)	(0.79)	(5.60)	(2.06)	(2.95)
MB	-2.053	1.539	-1.405	0.243	2.238	2.512	-5.174
	(7.03)	(4.22)	(3.01)	(1.08)	(7.48)	(3.79)	(4.17)
SK	8.212	0.234	-0.0745	-0.754	12.76*	10.50**	-8.127**
	(5.66)	(3.33)	(2.83)	(0.78)	(7.25)	(4.92)	(4.10)
AB	10.82**	-1.42	-1.148	-0.43	-7.196	-1.19	1.072
	(4.99)	(2.87)	(2.35)	(0.82)	(6.12)	(2.68)	(3.52)
BC	11.09**	8.828***	-1.19	-1.692***	-2.023	-0.248	5.924
	(4.49)	(2.70)	(2.37)	(0.65)	(5.38)	(2.29)	(3.65)
Urban	-7.251**	-0.15	-2.797	0.615	-0.412	0.276	5.444**
	(3.45)	(2.03)	(1.74)	(0.62)	(4.73)	(1.80)	(2.65)
Home Owner	0.582	0.104	6.283***	-0.0856	5.273	-3.622	1.396
	(3.87)	(2.00)	(1.96)	(0.69)	(4.46)	(2.46)	(3.15)
Home Ownership (Missing)	8.61	-16.48***	-4.802	-2.377***	11.41	-12.16**	9.364
	(16.34)	(3.37)	(9.90)	(0.87)	(28.33)	(4.93)	(31.06)

Fair	-9.445	3.053	5.367	-4.681*	1.599	12.14***	0.625
	(10.32)	(3.46)	(3.83)	(2.40)	(9.53)	(2.48)	(6.49)
Good	-15.95	6.150*	5.31	-4.946**	0.29	12.14***	-1.424
	(9.99)	(3.32)	(3.46)	(2.30)	(8.99)	(2.14)	(6.05)
Very Good	-15.56	10.11***	3.086	-6.292***	5.15	10.49***	4.35
	(9.91)	(3.29)	(3.46)	(2.29)	(9.14)	(2.11)	(6.09)
Excellent	-22.59**	18.68***	2.055	-4.627*	4.317	18.80***	-0.813
	(10.30)	(4.04)	(3.69)	(2.39)	(9.30)	(3.06)	(6.26)
Health Status (Missing)	-59.1	-5.63	7.05	-8.912***	-12.71	-1.78	19.64
	(61.37)	(4.35)	(15.63)	(2.49)	(25.73)	(2.54)	(27.68)
Secondary Graduate	2.028	-0.269	-4.558*	-0.924	-5.296	-1.194	17.40***
	(4.75)	(2.89)	(2.50)	(0.87)	(5.90)	(2.54)	(3.33)
Post- Secondary	-2.338	-0.908	-4.906*	0.11	2.919	-1.375	19.76***
	(4.76)	(2.72)	(2.56)	(0.91)	(6.38)	(2.26)	(3.32)
College or University Graduate	-1.198	-1.811	-5.986**	-0.105	1.557	-0.51	24.27***
	(4.67)	(2.68)	(2.48)	(0.87)	(5.46)	(2.37)	(3.41)
Education (Missing)	9.66	-6.025	-2.237	-0.925	-13.85	-11.58***	29.45*
	(14.11)	(4.25)	(7.82)	(2.14)	(21.14)	(2.58)	(15.80)
No Income	49.17*	-19.29	-1.885	-5.403***	5.887	1.167	-5.558
	(27.43)	(11.96)	(9.70)	(1.61)	(20.73)	(8.13)	(22.93)
Less than $5,000	14.11	-11.82	-0.594	-4.894**	-0.205	-2.187	-17.66*
	(18.79)	(10.18)	(8.69)	(2.11)	(23.50)	(8.40)	(10.18)
$5,000-$9,999	12.81	-10.65*	4.031	-4.878***	4.606	6.062	-19.92***
	(10.90)	(5.52)	(5.49)	(1.64)	(13.81)	(6.08)	(7.10)
$10,000-$14,999	12.52	-7.978	5.514	-2.458	11.49	-1.042	-18.98***
	(9.48)	(5.16)	(4.05)	(1.99)	(11.02)	(3.43)	(6.57)
$15,000-$19,999	14.06*	-12.40**	13.36***	-4.110***	6.873	2.454	-2.739
	(8.29)	(5.09)	(4.41)	(1.52)	(10.05)	(3.87)	(8.15)
$20,000-$29,999	3.731	-11.05**	1.37	-1.81	5.72	2.773	-5.903
	(8.13)	(4.82)	(3.20)	(1.45)	(8.99)	(2.78)	(5.59)
$30,000-$39,999	11.11	-6.895	6.510*	-0.439	7.142	2.233	-1.355
	(7.65)	(4.63)	(3.36)	(1.75)	(8.53)	(2.94)	(5.55)
$40,000-$49,999	7.395	-9.190**	5.515	-1.12	5.002	2.64	0.175
	(7.35)	(4.26)	(3.75)	(1.55)	(8.76)	(2.93)	(5.33)
$50,000-$59,999	11.95	-5.135	1.996	-1.64	2.127	6.338*	3.073
	(7.27)	(4.39)	(3.71)	(1.38)	(8.36)	(3.77)	(5.93)
$80,000 or more	2.807	0.306	-0.377	-1.174	-1.878	5.22	-3.794
	(6.34)	(4.15)	(2.82)	(1.52)	(7.52)	(3.66)	(4.56)
Household Income (Missing)	12.88**	-8.777**	4.688	-2.368	2.785	6.555**	-11.15**
	(6.31)	(3.83)	(2.95)	(1.47)	(7.94)	(2.59)	(4.38)
1998	-4.175	-0.547	2.008	1.896**	0.906	4.595**	-2.282

	(4.42)	(2.65)	(2.13)	(0.85)	(6.40)	(2.27)	(3.43)
2005	11.02**	2.081	1.194	-0.15	-7.037	4.491**	-11.20***
	(4.32)	(2.47)	(2.08)	(0.77)	(6.34)	(2.12)	(3.32)
Constant	462.4***	11.86*	21.60***	12.57***	43.53***	-4.39	13.6
	(14.82)	(6.92)	(6.18)	(3.66)	(15.38)	(4.92)	(9.59)
Observations	6,946	6,946	6,946	6,946	6,946	6,946	6,946

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 20 - IV Regression Results for Females (Without Month Dummies)

Variables	Sleep	Exercise	Meal Preparation	Medical Care	Home Socializing	Other Socializing	Reading
Retired	12.57	11.36	20.62*	5.402	26.42	12.04	21.83
	(27.13)	(18.02)	(11.89)	(5.07)	(34.32)	(11.98)	(19.08)
Age	-0.12	2.093	-1.46	-0.815	-0.799	-0.537	0.152
	(9.30)	(5.92)	(3.98)	(1.21)	(12.62)	(4.48)	(6.14)
Age^2	0.613	-0.517	-0.0577	0.0561	-0.355	-0.135	0.492
	(0.66)	(0.40)	(0.28)	(0.11)	(0.89)	(0.35)	(0.46)
Weekend	31.51***	3.209	5.760**	-4.070***	40.54***	7.434**	2.442
	(4.78)	(2.93)	(2.58)	(0.60)	(7.96)	(3.09)	(3.70)
Married or Common-law	1.681	-2.324	14.34***	-2.400*	-5.623	1.84	-6.022
	(7.73)	(4.69)	(3.68)	(1.44)	(10.24)	(3.95)	(6.46)
Widowed, Divorced, or Separated	-1.657	2.308	1.544	-1.579	4.745	1.203	4.749
	(7.82)	(4.73)	(3.57)	(1.52)	(10.77)	(4.11)	(6.61)
Marital Status (Missing)	12.06	32.43	-3.907	-4.316*	-51.19	30.39	-21.46
	(32.90)	(43.75)	(22.26)	(2.31)	(36.40)	(22.27)	(49.45)
NL	9.982	-0.452	16.23**	-1.188	5.919	10.57	-15.33**
	(9.85)	(5.36)	(6.74)	(1.15)	(12.76)	(8.62)	(6.47)
PEI	17.82	-7.951	-6.988	6.492	15.65	-5.592	12.44
	(13.66)	(6.16)	(5.24)	(5.84)	(18.87)	(6.40)	(11.98)
NS	-9.569	2.274	-3.853	3.467	-9.165	2.623	4.818
	(8.74)	(5.61)	(3.86)	(2.59)	(9.60)	(6.09)	(7.70)
NB	-0.3	9.037	-0.481	-1.929**	1.813	14.89	-13.12**
	(10.45)	(7.15)	(5.04)	(0.92)	(13.19)	(9.27)	(6.12)
QC	20.61***	4.194	0.357	-2.364**	18.21**	-4.409	-2.368
	(6.00)	(3.32)	(2.94)	(1.13)	(8.52)	(2.80)	(4.57)
MB	0.532	5.182	-1.767	-0.226	3.445	-3.881	-8.836
	(8.64)	(7.36)	(4.15)	(1.61)	(11.38)	(3.77)	(5.68)
SK	6.129	-4.196	1.642	-1.298	16.32	9.334*	-11.75**
	(7.61)	(3.94)	(3.74)	(1.08)	(10.91)	(5.55)	(5.38)
AB	5.515	1.455	0.939	-1.228	-11.94	0.685	2.508
	(6.91)	(4.28)	(3.25)	(1.21)	(9.22)	(4.10)	(5.30)
BC	11.05*	10.63***	-3.969	-2.040**	-3.517	-1.401	10.01*
	(6.20)	(3.96)	(3.29)	(0.98)	(7.99)	(3.14)	(5.44)
Urban	-11.71**	-2.49	-4.017*	1.455*	1.758	-0.00689	6.265*
	(4.75)	(3.08)	(2.37)	(0.79)	(6.56)	(2.41)	(3.71)
Home Owner	2.676	0.765	5.344**	0.184	5.544	-5.185	1.27
	(5.30)	(2.75)	(2.69)	(0.98)	(6.27)	(3.75)	(4.35)
Home Ownership (Missing)	-4.169	-16.10***	18.14	-3.290*	-2.022	-12.26*	58.55
	(20.28)	(5.88)	(14.52)	(1.86)	(27.04)	(6.45)	(58.48)

Fair	-10.77	3.268	-0.45	-4.410*	9.891	12.93***	-2.735
	(14.38)	(4.89)	(5.55)	(2.66)	(13.07)	(3.64)	(9.35)
Good	-12.06	5.937	1.508	-4.869*	10.84	12.03***	-4.637
	(14.01)	(4.62)	(5.09)	(2.55)	(12.28)	(2.97)	(8.88)
Very Good	-17.69	8.225*	-1.563	-6.356**	17.94	9.276***	-0.0722
	(13.78)	(4.40)	(5.07)	(2.53)	(12.42)	(2.57)	(8.87)
Excellent	-23.57*	15.37***	-4.016	-4.274	17.11	16.92***	-6.8
	(14.26)	(5.40)	(5.26)	(2.79)	(12.38)	(4.18)	(9.07)
Health Status (Missing)	-107.4*	-12.46	-2	-8.358**	-14.57	-5.843	8.52
	(63.13)	(7.86)	(20.47)	(3.40)	(39.82)	(4.66)	(32.03)
Secondary Graduate	6.114	-3.763	-2.915	-1.931	-10.87	-2.171	22.28***
	(6.71)	(4.34)	(3.01)	(1.31)	(8.56)	(3.42)	(4.73)
Post-Secondary	1.055	-5.105	-2.46	-0.762	0.0975	-2.465	25.47***
	(6.79)	(4.00)	(3.16)	(1.24)	(9.51)	(2.97)	(4.81)
College or University Graduate	0.89	-3.703	-3.31	-0.693	-0.439	-0.0685	29.25***
	(6.61)	(3.96)	(3.19)	(1.35)	(7.97)	(3.56)	(4.94)
Education (Missing)	6.653	-5.983	-5.041	-5.771***	18.02	-15.45***	11.08
	(22.82)	(5.29)	(9.66)	(1.85)	(33.12)	(4.13)	(17.72)
No Income	28.87	-50.87***	-7.83	-6.100*	-23.75	63.75**	63.71
	(45.79)	(18.42)	(12.06)	(3.64)	(63.74)	(32.14)	(66.46)
Less than $5,000	32.3	-8.394	-7.309	-5.566*	-2.24	4.642	-26.56**
	(20.36)	(14.27)	(10.65)	(3.03)	(35.57)	(10.61)	(13.31)
$5,000-$9,999	17.61	-8.202	2.491	-7.279***	4.902	8.854	-18.68*
	(14.10)	(7.25)	(5.51)	(2.72)	(17.15)	(7.76)	(9.69)
$10,000-$14,999	15.93	-7.211	5.263	-5.525**	19.15	-2.069	-19.74**
	(13.23)	(7.39)	(5.22)	(2.50)	(16.12)	(4.75)	(9.58)
$15,000-$19,999	15.3	-7.702	13.42**	-5.006**	9.662	5.592	-2.732
	(11.93)	(7.33)	(5.87)	(2.35)	(14.89)	(5.58)	(11.87)
$20,000-$29,999	7.394	-4.657	2.475	-3.497	5.89	3.378	-9.436
	(12.00)	(7.34)	(4.38)	(2.24)	(13.32)	(3.92)	(8.55)
$30,000-$39,999	25.61**	-0.0246	8.842*	-0.0167	8.673	3.059	-4.257
	(11.14)	(7.03)	(4.80)	(2.97)	(13.04)	(4.15)	(8.67)
$40,000-$49,999	9.099	-10.28*	2.93	-2.302	11.9	3.513	-2.765
	(10.23)	(5.92)	(5.52)	(2.37)	(13.27)	(4.01)	(8.28)
$50,000-$59,999	22.09*	-1.604	4.723	-1.615	6	5.266	9.595
	(11.60)	(6.56)	(5.72)	(2.30)	(12.70)	(5.84)	(10.04)
$80,000 or more	3.17	7.621	3.531	-1.376	-3.36	6.959	-10.4
	(10.20)	(6.54)	(4.60)	(2.75)	(12.58)	(5.46)	(8.05)
Household Income (Missing)	14.81	-5.073	5.664	-4.004	3.805	7.549*	-14.12**
	(9.46)	(5.88)	(4.01)	(2.52)	(12.87)	(3.91)	(7.12)
FEB	-6.652	6.108	-0.645	-0.716	-4.007	-5.122	6.572

	(11.64)	(5.38)	(4.85)	(1.80)	(12.84)	(6.17)	(7.55)
MAR	-9.279	11.22*	-3.854	0.824	-2.67	-5.415	-3.522
	(11.06)	(5.96)	(5.45)	(2.77)	(17.34)	(6.38)	(7.47)
APR	-3.551	8.944**	-4.462	-1.873	1.222	-1.616	-2.108
	(10.82)	(4.40)	(5.11)	(1.43)	(11.62)	(7.10)	(8.15)
MAY	-7.797	14.04***	0.0554	-0.525	5.812	-8.564	-2.238
	(10.13)	(4.94)	(4.83)	(1.98)	(12.33)	(5.87)	(6.95)
JUN	-9.472	11.28**	-5.632	-1.895	-4.787	2.644	3.801
	(10.19)	(5.66)	(5.06)	(1.65)	(11.48)	(8.15)	(7.91)
JUL	-8.498	18.32***	-2.669	-0.918	31.90**	4.984	8.464
	(9.98)	(5.48)	(4.79)	(1.59)	(14.53)	(7.35)	(7.51)
AUG	-5.048	24.46***	-0.832	-2.560*	25.04*	0.982	1.189
	(10.39)	(6.39)	(4.81)	(1.51)	(13.71)	(6.50)	(7.63)
SEP	-10.79	9.515*	8.465	-0.826	-5.454	-8.516	19.71**
	(9.99)	(5.20)	(6.19)	(1.77)	(13.16)	(6.44)	(8.94)
OCT	-4.465	10.87**	2.844	-2.382*	-1.187	-5.634	0.0572
	(10.76)	(5.32)	(5.31)	(1.40)	(11.29)	(6.34)	(8.21)
NOV	15.18	8.876*	-2.922	0.419	-9.611	-8.443	-3.148
	(10.15)	(4.85)	(4.91)	(2.33)	(11.15)	(6.35)	(7.00)
DEC	-16.38	6.583	-4.102	-1.242	-7.323	-1.522	-2.55
	(10.33)	(4.68)	(4.76)	(1.97)	(11.26)	(6.64)	(6.82)
1998	-2.734	-0.968	1.94	1.898**	0.18	4.712**	-1.088
	(4.37)	(2.66)	(2.13)	(0.88)	(6.54)	(2.24)	(3.43)
Constant	464.3***	2.46	29.15***	14.04***	38.23*	-3.673	15.47
	(23.62)	(10.49)	(9.16)	(4.37)	(22.73)	(8.05)	(14.44)
Observations	2,916	2,916	2,916	2,916	2,916	2,916	2,916

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 21 - Regression Results for Volunteering (Both Genders Without Month Dummies)

Variables	Males			Females		
	dProbit	OLS	IV	dProbit	OLS	IV
Retired	0.0393	0.0373	0.0227	0.112***	0.108***	0.296***
	(0.03)	(0.02)	(0.10)	(0.03)	(0.02)	(0.10)
Age	-0.00262	-0.00235	0.000786	-0.00117	-0.0027	-0.058
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.04)
Age^2	-0.000417	-0.000378	-0.000485	-0.00205	-0.00171	0.00118
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Weekend	0.0148	0.0135	0.0136	-0.00395	-0.00434	-0.00534
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Married or Common-law	0.0797***	0.0739***	0.0737***	-0.00361	-0.00375	-0.00585
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Widowed, Divorced, or Separated	0.0058	0.00262	0.00201	-0.0179	-0.0172	-0.00926
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Marital Status (Missing)	0.469**	0.453**	0.448**	0.414***	0.382***	0.381***
	(0.20)	(0.19)	(0.19)	(0.13)	(0.14)	(0.13)
NL	-0.0288	-0.023	-0.0227	-0.039	-0.0358	-0.0317
	(0.04)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)
PEI	0.00959	0.0109	0.00988	0.00437	0.0108	0.0191
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
NS	0.0327	0.0304	0.0309	0.0524	0.0515	0.0533
	(0.04)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)
NB	0.0407	0.0417	0.0418	0.0245	0.0232	0.0324
	(0.04)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)
QC	-0.0339	-0.0304	-0.0304	-0.0705***	-0.0653***	-0.0637***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
MB	0.048	0.0472	0.0467	0.0177	0.0191	0.0265
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
SK	0.116***	0.109***	0.108***	0.140***	0.130***	0.140***
	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
AB	0.0984***	0.0954***	0.0949***	0.0163	0.0149	0.0219
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
BC	0.0620**	0.0598**	0.0600**	0.0454*	0.0432*	0.0452*
	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)
Urban	-0.0878***	-0.0822***	-0.0823***	-0.0678***	-0.0624***	-0.0589***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Home Owner	0.0420*	0.0351	0.0359	0.0464**	0.0412**	0.0389**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Home Ownership (Missing)	-0.165	-0.12	-0.118	-0.246***	-0.183***	-0.182***
	(0.11)	(0.08)	(0.08)	(0.05)	(0.05)	(0.04)

Fair	0.0132	-0.000475	-0.0018	0.0275	0.0253	0.0404
	(0.06)	(0.05)	(0.05)	(0.07)	(0.05)	(0.05)
Good	0.0553	0.0404	0.0388	0.130**	0.115**	0.136***
	(0.05)	(0.04)	(0.04)	(0.07)	(0.05)	(0.05)
Very Good	0.0408	0.0276	0.026	0.174***	0.156***	0.175***
	(0.05)	(0.04)	(0.04)	(0.07)	(0.05)	(0.05)
Excellent	0.0897	0.0713	0.0692	0.206***	0.184***	0.210***
	(0.06)	(0.05)	(0.05)	(0.07)	(0.05)	(0.05)
Health Status (Missing)	0.197	0.168	0.167	-0.305***	-0.167***	-0.159***
	(0.14)	(0.12)	(0.12)	(0.04)	(0.06)	(0.06)
Secondary Graduate	0.146***	0.121***	0.122***	0.0612**	0.0458**	0.0510**
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)
Post-Secondary	0.157***	0.133***	0.133***	0.171***	0.147***	0.156***
	(0.03)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)
College or University Graduate	0.261***	0.237***	0.238***	0.247***	0.226***	0.229***
	(0.03)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)
Education (Missing)	0.387***	0.356***	0.356***	0.0152	0.0117	0.0191
	(0.11)	(0.13)	(0.13)	(0.10)	(0.07)	(0.07)
No Income	-0.294***	-0.306***	-0.303***	-0.143	-0.171	-0.210**
	(0.05)	(0.08)	(0.08)	(0.10)	(0.11)	(0.11)
Less than $5,000	0.187	0.166	0.169	-0.155*	-0.12	-0.141*
	(0.17)	(0.16)	(0.16)	(0.09)	(0.08)	(0.08)
$5,000-$9,999	0.0223	-0.000585	0.00254	-0.154**	-0.161**	-0.177***
	(0.10)	(0.09)	(0.09)	(0.07)	(0.07)	(0.06)
$10,000-$14,999	-0.115**	-0.0966**	-0.0933*	-0.0134	-0.0225	-0.05
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
$15,000-$19,999	-0.04	-0.038	-0.0359	-0.0399	-0.0472	-0.0674
	(0.05)	(0.04)	(0.05)	(0.05)	(0.05)	(0.05)
$20,000-$29,999	0.00427	0.00123	0.00338	-0.0684*	-0.0733*	-0.0908**
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
$30,000-$39,999	-0.048	-0.0476	-0.0464	-0.0936***	-0.0965**	-0.106***
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)
$40,000-$49,999	0.0132	0.0105	0.0111	-0.0745*	-0.0794*	-0.0903**
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
$50,000-$59,999	-0.0173	-0.0196	-0.0195	-0.0535	-0.0536	-0.0547
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)
$80,000 or more	0.0288	0.0299	0.0288	-0.0217	-0.0183	-0.014
	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Household Income (Missing)	-0.0428	-0.044	-0.0434	-0.109***	-0.109***	-0.121***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
2005	0.00281	0.00161	0.00134	0.0563***	0.0531***	0.0551***

	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Constant	-	0.127** (0.06)	0.124* (0.07)	-	0.164** (0.08)	0.206** (0.08)
Observations	5,530	5,530	5,530	5,874	5,874	5,874
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1						

Table 22 - Regression Results for Volunteering (Both Genders With Month Dummies)

Variables	Males			Females		
	dProbit	OLS	IV	dProbit	OLS	IV
Retired	0.105**	0.0970**	0.127	0.160***	0.158***	0.315*
	(0.05)	(0.04)	(0.16)	(0.05)	(0.04)	(0.18)
Age	-0.0331	-0.0316	-0.0384	0.000118	-0.00775	-0.0553
	(0.03)	(0.03)	(0.05)	(0.03)	(0.03)	(0.06)
Age^2	0.0013	0.00117	0.00145	-0.00422	-0.00292	-0.00032
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Weekend	0.00649	0.00456	0.00505	-0.0101	-0.00997	-0.0102
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Married or Common-law	0.045	0.0425	0.0435	-0.0108	-0.0119	-0.00821
	(0.05)	(0.04)	(0.04)	(0.06)	(0.05)	(0.05)
Widowed, Divorced, or Separated	-0.0529	-0.0485	-0.0463	-0.0616	-0.0586	-0.0505
	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)	(0.05)
Marital Status (Missing)	-	0.775***	0.787***	0.328	0.241	0.241
		(0.09)	(0.11)	(0.22)	(0.18)	(0.18)
NL	-0.0295	-0.0169	-0.0173	-0.0199	-0.019	-0.0172
	(0.07)	(0.06)	(0.06)	(0.07)	(0.08)	(0.08)
PEI	-0.0588	-0.0514	-0.0485	-0.00505	-0.00312	0.00148
	(0.09)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
NS	0.0189	0.0178	0.0164	0.0719	0.0664	0.0674
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
NB	0.00583	0.0114	0.0116	0.0738	0.0632	0.0745
	(0.06)	(0.06)	(0.06)	(0.07)	(0.06)	(0.06)
QC	0.0326	0.0318	0.0317	-0.00824	-0.00724	-0.00672
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
MB	0.0507	0.0486	0.0509	0.116*	0.0995*	0.109**
	(0.06)	(0.06)	(0.06)	(0.06)	(0.05)	(0.05)
SK	0.174***	0.151***	0.154***	0.173***	0.151***	0.159***
	(0.06)	(0.05)	(0.05)	(0.06)	(0.05)	(0.05)
AB	0.123**	0.115**	0.116**	0.0389	0.0341	0.0353
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)
BC	0.134***	0.124***	0.123***	0.0993**	0.0910**	0.0928**
	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Urban	-0.104***	-0.0918***	-0.0913***	-0.0508	-0.0490*	-0.0427
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Home Owner	-0.0111	-0.00695	-0.00961	0.0396	0.0308	0.0264
	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)
Home Ownership (Missing)	0.248	0.227	0.225	-0.271***	-0.212***	-0.181**
	(0.35)	(0.36)	(0.35)	(0.03)	(0.07)	(0.08)

Fair	-0.0387 (0.09)	-0.0404 (0.09)	-0.038 (0.09)	-0.0636 (0.10)	-0.0426 (0.10)	-0.0338 (0.10)
Good	-0.0255 (0.09)	-0.0258 (0.08)	-0.0217 (0.08)	0.0579 (0.11)	0.066 (0.09)	0.0881 (0.10)
Very Good	0.00796 (0.09)	0.00334 (0.08)	0.00783 (0.08)	0.103 (0.11)	0.107 (0.09)	0.123 (0.10)
Excellent	0.0811 (0.09)	0.0715 (0.08)	0.077 (0.09)	0.125 (0.12)	0.127 (0.10)	0.152 (0.10)
Health Status (Missing)	0.0331 (0.20)	0.0377 (0.16)	0.0368 (0.16)	-	-0.240** (0.10)	-0.228** (0.10)
Secondary Graduate	0.214*** (0.05)	0.176*** (0.04)	0.175*** (0.04)	0.0567 (0.04)	0.0453 (0.04)	0.055 (0.04)
Post-Secondary	0.157*** (0.04)	0.127*** (0.04)	0.126*** (0.04)	0.173*** (0.04)	0.148*** (0.04)	0.159*** (0.04)
College or University Graduate	0.326*** (0.04)	0.291*** (0.04)	0.290*** (0.04)	0.230*** (0.04)	0.210*** (0.04)	0.215*** (0.04)
Education (Missing)	0.474*** (0.13)	0.445** (0.18)	0.442** (0.18)	-0.0584 (0.13)	-0.0345 (0.10)	-0.0285 (0.10)
No Income	-	-0.197** (0.08)	-0.208** (0.09)	0.28 (0.33)	0.209 (0.28)	0.147 (0.30)
Less than $5,000	0.328 (0.22)	0.289 (0.21)	0.291 (0.21)	-0.0725 (0.15)	-0.0491 (0.13)	-0.076 (0.14)
$5,000-$9,999	0.165 (0.15)	0.127 (0.13)	0.122 (0.12)	-0.104 (0.11)	-0.113 (0.11)	-0.127 (0.10)
$10,000-$14,999	-0.159** (0.07)	-0.109* (0.06)	-0.116 (0.07)	0.0745 (0.09)	0.0574 (0.08)	0.0343 (0.08)
$15,000-$19,999	0.0301 (0.08)	0.0264 (0.07)	0.0222 (0.07)	0.0242 (0.08)	0.0138 (0.08)	-0.0029 (0.08)
$20,000-$29,999	0.0678 (0.07)	0.0636 (0.06)	0.0587 (0.06)	-0.0483 (0.07)	-0.0542 (0.07)	-0.0698 (0.08)
$30,000-$39,999	-0.0474 (0.06)	-0.0411 (0.06)	-0.0438 (0.06)	-0.110* (0.06)	-0.105 (0.07)	-0.11 (0.07)
$40,000-$49,999	0.0593 (0.07)	0.0506 (0.07)	0.0505 (0.06)	-0.0546 (0.07)	-0.0578 (0.08)	-0.0684 (0.08)
$50,000-$59,999	-0.0139 (0.06)	-0.0168 (0.06)	-0.016 (0.06)	-0.0227 (0.07)	-0.0151 (0.08)	-0.0186 (0.08)
$80,000 or more	0.0598 (0.06)	0.0561 (0.06)	0.0594 (0.06)	0.0673 (0.07)	0.0761 (0.07)	0.0767 (0.07)
Household Income (Missing)	0.00933 (0.06)	0.00902 (0.05)	0.00746 (0.05)	-0.0614 (0.06)	-0.0586 (0.06)	-0.0709 (0.07)
FEB	0.145*	0.132*	0.132*	0.0314	0.0241	0.0239

	(0.08)	(0.07)	(0.07)	(0.08)	(0.07)	(0.07)
MAR	0.0434	0.0417	0.041	0.0314	0.0254	0.0323
	(0.08)	(0.07)	(0.07)	(0.07)	(0.06)	(0.06)
APR	0.143*	0.130**	0.132**	-0.0678	-0.0595	-0.0612
	(0.08)	(0.07)	(0.07)	(0.06)	(0.06)	(0.06)
MAY	0.0452	0.0463	0.045	-0.00315	-0.00743	0.00233
	(0.07)	(0.06)	(0.06)	(0.07)	(0.06)	(0.06)
JUN	0.103	0.0927	0.0942	-0.0385	-0.036	-0.0375
	(0.08)	(0.07)	(0.07)	(0.06)	(0.07)	(0.06)
JUL	0.165**	0.146**	0.146**	-0.0746	-0.0687	-0.065
	(0.08)	(0.07)	(0.07)	(0.06)	(0.06)	(0.06)
AUG	-0.00782	-0.00442	-0.00247	-0.00519	-0.0117	-0.015
	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
SEP	0.0418	0.0435	0.0434	0.059	0.0495	0.0442
	(0.07)	(0.07)	(0.06)	(0.07)	(0.07)	(0.07)
OCT	0.11	0.0984	0.0991	-0.0718	-0.0781	-0.0753
	(0.08)	(0.07)	(0.07)	(0.06)	(0.06)	(0.06)
NOV	0.0452	0.0386	0.0396	-0.0372	-0.0345	-0.0371
	(0.07)	(0.07)	(0.06)	(0.07)	(0.07)	(0.07)
DEC	0.0478	0.0419	0.0431	-0.057	-0.0595	-0.0589
	(0.07)	(0.07)	(0.06)	(0.06)	(0.07)	(0.06)
Constant	-	0.135	0.139	-	0.211	0.24
		(0.12)	(0.12)		(0.16)	(0.16)
Observations	1,671	1,674	1,674	1,840	1,844	1,844

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 23 - Regression Results for Attending Religious Services (Both Genders Without Month Dummies)

Variables	Males			Females		
	dProbit	OLS	IV	dProbit	OLS	IV
Retired	-0.0215	-0.0194	-0.0765	-0.00594	-0.00671	0.00862
	(0.02)	(0.02)	(0.08)	(0.02)	(0.02)	(0.09)
Age	0.00264	0.0039	0.0166	0.0375**	0.0379**	0.0335
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)
Age^2	0.00234	0.00201	0.00155	-0.00211	-0.00222	-0.002
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Weekend	0.024	0.0238	0.0241	0.00379	0.00439	0.00415
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Married or Common-law	0.114***	0.112***	0.111***	0.0518**	0.0518**	0.0516**
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Widowed, Divorced, or Separated	0.000374	0.00354	0.00117	0.00559	0.0077	0.00844
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Marital Status (Missing)	-	0.498***	0.481***	0.114	0.138	0.137
		(0.05)	(0.05)	(0.14)	(0.20)	(0.20)
NL	0.0808**	0.0750**	0.0777**	0.144***	0.132***	0.132***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
PEI	0.0733	0.068	0.0653	0.119***	0.111***	0.111***
	(0.05)	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)
NS	0.0189	0.0199	0.0214	0.0286	0.0269	0.027
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
NB	0.0787**	0.0758**	0.0765**	0.158***	0.142***	0.143***
	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)
QC	0.0376*	0.0364*	0.0366*	0.024	0.0217	0.0216
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
MB	-0.0224	-0.0181	-0.0189	-0.0052	-0.00339	-0.00307
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
SK	0.0277	0.0274	0.0255	0.0748***	0.0697***	0.0704***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)
AB	-0.0519*	-0.0491*	-0.0512*	-0.0206	-0.0189	-0.0187
	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)
BC	-0.180***	-0.175***	-0.173***	-0.228***	-0.226***	-0.226***
	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Urban	-0.0285	-0.0262	-0.0265	-0.0340**	-0.0314*	-0.0312*
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Home Owner	0.0821***	0.0789***	0.0814***	0.0322*	0.0294	0.0293
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Home Ownership	-0.390***	-0.365***	-0.360***	-0.175	-0.177	-0.176

(Missing)	(0.12)	(0.11)	(0.11)	(0.12)	(0.11)	(0.11)
Fair	0.132***	0.144***	0.137***	0.0572	0.0572	0.0585
	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)
Good	0.149***	0.156***	0.148***	0.0894**	0.0899**	0.0915**
	(0.04)	(0.04)	(0.05)	(0.04)	(0.04)	(0.04)
Very Good	0.188***	0.197***	0.188***	0.0792**	0.0778**	0.0792**
	(0.04)	(0.04)	(0.05)	(0.04)	(0.04)	(0.04)
Excellent	0.163***	0.174***	0.164***	0.0770**	0.0784*	0.0802*
	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)
Health Status (Missing)	-0.0868	-0.0839	-0.0878	-0.226	-0.234	-0.234
	(0.15)	(0.14)	(0.15)	(0.18)	(0.17)	(0.17)
Secondary Graduate	0.0251	0.0247	0.0254	-0.0179	-0.0172	-0.0168
	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Post-Secondary	-0.0191	-0.0183	-0.0173	-0.00636	-0.00635	-0.0056
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
College or University Graduate	-0.0086	-0.00793	-0.0062	0.019	0.0178	0.0181
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Education (Missing)	0.125*	0.126*	0.126*	0.0549	0.0577	0.0583
	(0.07)	(0.07)	(0.07)	(0.08)	(0.08)	(0.08)
No Income	-0.0525	-0.0568	-0.0429	0.0248	0.0284	0.0252
	(0.17)	(0.17)	(0.17)	(0.11)	(0.13)	(0.13)
Less than $5,000	0.0777	0.0816	0.0954	0.0195	0.0207	0.0187
	(0.16)	(0.16)	(0.16)	(0.13)	(0.14)	(0.14)
$5,000-$9,999	0.0405	0.0403	0.0537	0.0227	0.0191	0.0175
	(0.07)	(0.07)	(0.08)	(0.05)	(0.05)	(0.05)
$10,000-$14,999	0.0633	0.0624	0.0753	0.0473	0.0423	0.04
	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)
$15,000-$19,999	0.0687*	0.068	0.0781*	0.0182	0.0145	0.0129
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
$20,000-$29,999	0.0679**	0.0663*	0.0764**	0.0171	0.0135	0.012
	(0.03)	(0.03)	(0.04)	(0.03)	(0.03)	(0.03)
$30,000-$39,999	0.0610*	0.0609*	0.0666*	0.00788	0.0063	0.00515
	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.04)
$40,000-$49,999	0.0777**	0.0761**	0.0806**	0.0351	0.0325	0.0317
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
$50,000-$59,999	0.0950***	0.0948***	0.0957***	-0.0242	-0.0235	-0.0237
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)
$80,000 or more	-0.00799	-0.00797	-0.0111	-0.0455	-0.045	-0.0448
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Household Income (Missing)	0.0472	0.0469	0.0505*	-0.0226	-0.0219	-0.0227
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)

1998	-0.0245 (0.02)	-0.0238 (0.02)	-0.0229 (0.02)	-0.0113 (0.02)	-0.01 (0.02)	-0.0104 (0.02)
2005	-0.00571 (0.02)	-0.00503 (0.02)	-0.00525 (0.02)	-0.0375* (0.02)	-0.0348* (0.02)	-0.0349* (0.02)
Constant	-	0.280*** (0.07)	0.270*** (0.07)	-	0.539*** (0.06)	0.543*** (0.07)
Observations	6,683	6,686	6,686	6,946	6,946	6,946

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 24 - Regression Results for Attending Religious Services (Both Genders With Month Dummies)

Variables	Males			Females		
	dProbit	OLS	IV	dProbit	OLS	IV
Retired	-0.034	-0.03	-0.168	-0.0198	-0.02	0.128
	(0.04)	(0.03)	(0.12)	(0.04)	(0.04)	(0.13)
Age	0.0186	0.0197	0.0521	0.0263	0.0274	-0.0165
	(0.02)	(0.02)	(0.04)	(0.02)	(0.02)	(0.04)
Age^2	0.0014	0.000957	-0.00041	-0.00109	-0.00132	0.00094
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Weekend	0.0489**	0.0467**	0.0463**	0.00434	0.00671	0.00332
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Married or Common-law	0.123***	0.119***	0.118***	0.0425	0.0418	0.0424
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Widowed, Divorced, or Separated	0.004	0.00798	0.000124	-0.0127	-0.0112	-0.00256
	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)
Marital Status (Missing)	-	0.464***	0.408***	-0.04	-0.0204	-0.0204
		(0.08)	(0.09)	(0.27)	(0.28)	(0.28)
NL	0.072	0.0686	0.0771	0.136***	0.113***	0.108***
	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)
PEI	0.0564	0.0545	0.0484	0.0898	0.0829	0.0757
	(0.07)	(0.06)	(0.06)	(0.06)	(0.05)	(0.05)
NS	0.0188	0.0242	0.0269	0.0268	0.0281	0.0287
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)
NB	0.0986**	0.0999**	0.101**	0.158***	0.135***	0.143***
	(0.05)	(0.04)	(0.04)	(0.03)	(0.03)	(0.03)
QC	0.0990***	0.0949***	0.0969***	0.0613**	0.0540*	0.0514*
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
MB	-0.0518	-0.0417	-0.0461	-0.0695	-0.0595	-0.0571
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)
SK	0.0268	0.0302	0.0248	0.0670*	0.0602*	0.0649*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)
AB	-0.0779*	-0.0724*	-0.0778**	-0.0485	-0.0464	-0.0488
	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)
BC	-0.186***	-0.176***	-0.171***	-0.300***	-0.294***	-0.297***
	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)	(0.03)
Urban	-0.0229	-0.0203	-0.0219	-0.0506**	-0.0461**	-0.0428*
	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Home Owner	0.102***	0.0949***	0.102***	0.0450*	0.039	0.0372
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)
Home Ownership	-	-0.624***	-0.625***	-0.447**	-0.415**	-0.385**

(Missing)		(0.10)	(0.10)	(0.18)	(0.17)	(0.19)
Fair	0.113**	0.116*	0.0982	0.055	0.052	0.0633
	(0.06)	(0.06)	(0.07)	(0.05)	(0.06)	(0.06)
Good	0.0993*	0.0971	0.0749	0.126***	0.127**	0.145**
	(0.06)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Very Good	0.171***	0.169***	0.143**	0.0982*	0.0969*	0.110*
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Excellent	0.146***	0.146**	0.116*	0.103**	0.105*	0.124**
	(0.06)	(0.06)	(0.07)	(0.05)	(0.06)	(0.06)
Health Status (Missing)	0.0116	-0.0327	-0.0391	-0.18	-0.199	-0.203
	(0.20)	(0.19)	(0.19)	(0.23)	(0.21)	(0.20)
Secondary Graduate	0.0235	0.0238	0.0268	-0.0139	-0.0136	-0.00662
	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Post-Secondary	-0.0581*	-0.0524*	-0.0476	-0.0192	-0.0199	-0.0106
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
College or University Graduate	-0.0395	-0.0342	-0.0275	-0.026	-0.0264	-0.0225
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Education (Missing)	0.289***	0.264***	0.273***	0.158*	0.187	0.189*
	(0.05)	(0.08)	(0.08)	(0.08)	(0.12)	(0.11)
No Income	-	0.350***	0.397***	-	0.440***	0.381**
		(0.10)	(0.09)		(0.16)	(0.16)
Less than $5,000	0.0192	0.0155	0.0401	-0.115	-0.099	-0.124
	(0.18)	(0.19)	(0.18)	(0.20)	(0.19)	(0.18)
$5,000-$9,999	0.0514	0.0517	0.0851	-0.00944	-0.0132	-0.0282
	(0.08)	(0.08)	(0.08)	(0.07)	(0.06)	(0.06)
$10,000-$14,999	0.0458	0.0483	0.0823	0.0444	0.0361	0.0133
	(0.06)	(0.06)	(0.07)	(0.05)	(0.05)	(0.05)
$15,000-$19,999	0.0624	0.0646	0.0899	0.00666	-0.00338	-0.0189
	(0.05)	(0.06)	(0.06)	(0.05)	(0.05)	(0.05)
$20,000-$29,999	0.0564	0.0533	0.0808	-0.0345	-0.0353	-0.0502
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
$30,000-$39,999	0.0617	0.0636	0.0788	-0.0706	-0.0645	-0.0768
	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)	(0.05)
$40,000-$49,999	0.0695	0.0676	0.0784*	-0.0121	-0.0157	-0.023
	(0.04)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
$50,000-$59,999	0.118***	0.115**	0.115***	-0.0508	-0.049	-0.0557
	(0.04)	(0.04)	(0.04)	(0.06)	(0.05)	(0.05)
$80,000 or more	-0.0078	-0.00772	-0.0169	-0.0397	-0.0347	-0.0367
	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)	(0.05)
Household Income (Missing)	0.0436	0.0441	0.0563	-0.0929**	-0.0864**	-0.0951**
	(0.04)	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)

FEB	-0.0776 (0.06)	-0.0638 (0.05)	-0.0699 (0.05)	-0.0433 (0.05)	-0.0378 (0.05)	-0.0341 (0.05)
MAR	-0.0582 (0.06)	-0.0464 (0.05)	-0.0393 (0.05)	-0.0562 (0.06)	-0.0488 (0.05)	-0.0415 (0.05)
APR	-0.0874 (0.06)	-0.0721 (0.05)	-0.0736 (0.05)	0.0344 (0.05)	0.0313 (0.04)	0.0322 (0.04)
MAY	-0.0367 (0.06)	-0.0271 (0.05)	-0.0264 (0.05)	-0.0566 (0.05)	-0.0526 (0.05)	-0.0463 (0.05)
JUN	-0.022 (0.06)	-0.0146 (0.05)	-0.0177 (0.05)	-0.114** (0.06)	-0.101** (0.05)	-0.0999** (0.05)
JUL	0.00289 (0.06)	0.00848 (0.05)	0.0113 (0.05)	-0.0628 (0.05)	-0.0548 (0.05)	-0.0459 (0.05)
AUG	-0.0924 (0.06)	-0.0781 (0.05)	-0.0817 (0.05)	0.0254 (0.05)	0.024 (0.04)	0.0256 (0.04)
SEP	-0.130** (0.06)	-0.110** (0.05)	-0.112** (0.05)	-0.0682 (0.06)	-0.0596 (0.05)	-0.0579 (0.05)
OCT	-0.0176 (0.06)	-0.00603 (0.05)	-0.00262 (0.05)	-0.0179 (0.05)	-0.0135 (0.05)	-0.00941 (0.05)
NOV	-0.121** (0.06)	-0.102** (0.05)	-0.104** (0.05)	-0.0546 (0.05)	-0.0494 (0.05)	-0.0488 (0.05)
DEC	-0.201*** (0.06)	-0.178*** (0.05)	-0.179*** (0.05)	-0.0594 (0.05)	-0.0507 (0.05)	-0.0475 (0.05)
1998	-0.0285 (0.02)	-0.0272 (0.02)	-0.0247 (0.02)	-0.0109 (0.02)	-0.0106 (0.02)	-0.0141 (0.02)
Constant	-	0.317*** (0.10)	0.293*** (0.10)	-	0.654*** (0.09)	0.689*** (0.10)
Observations	2,822	2,830	2,830	2,913	2,916	2,916

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 25 : Comparison of the estimated coefficients for retirement status between two sets of instruments (males)

Dependent Variable	Instrument Based on Respondent's Age		Instrument Based on Spouse/Partner's Age	
	IV_1	IV_2	IV_1	IV_2
(1)	(2)	(3)	(4)	(5)
Sleep	-18.20	-14.47	-77.53	-65.98
	(37.18)	(36.03)	(83.84)	(79.75)
Exercise	29.91	28.62	108.31	103.26
	(30.40)	(29.04)	(72.45)	(67.17)
Meal Preparation	-12.10	-15.88	13.62	5.40
	(12.26)	(12.16)	(37.08)	(36.16)
Medical Care	13.41	13.82	9.24	3.79
	(9.01)	(9.08)	(33.92)	(29.76)
Home Socializing	-49.12	-44.92	-151.08	-128.43
	(56.55)	(54.37)	(113.59)	(108.01)
Other Socializing	1.01	-0.07	-7.22	-17.14
	(18.45)	(18.27)	(48.28)	(48.49)
Reading	26.22	19.80	24.38	18.72
	(29.21)	(29.33)	(74.89)	(72.31)
Volunteering	0.18	0.16	-0.13	-0.04
	(0.19)	(0.18)	(0.45)	(.43291)
Attending Religious Meetings/Services	0.05	0.03	-0.13	-0.14
	(0.19)	(0.18)	(0.47)	(0.45)
First-stage F-Stat	14.2899	15.3275	3.30637	3.70842

IV_1 indicates the exclusion of month dummies
IV_2 indicates the inclusion of month dummies
***p<0.01, **p<0.05, *p<0.1

Table 26 : Comparison of the estimated coefficients for retirement status between two sets of instruments (females)

Dependent Variable (1)	Instruments Based on Respondent's Age		Instruments Based on Spouse/Partner's Age	
	IV_1 (2)	IV_2 (3)	IV_1 (4)	IV_2 (5)
Sleep	10.32	12.97	27.50	31.85
	(48.66)	(49.61)	(42.27)	(41.77)
Exercise	8.49	10.71	22.29	21.07
	(28.76)	(29.79)	(26.20)	(25.42)
Meal Preparation	-24.68	-22.98	31.72	30.85
	(26.76)	(26.21)	(23.96)	(23.65)
Medical Care	-9.15	-8.45	-0.06	1.74
	(12.76)	(12.12)	(6.68)	(6.03)
Home Socializing	54.98	53.48	64.78	62.10
	(60.85)	(61.88)	(53.83)	(53.46)
Other Socializing	21.58	14.23	-45.78	-48.96
	(29.11)	(29.44)	(32.83)	(30.99)
Reading	16.70	9.22	45.80	39.30
	(37.91)	(38.69)	(31.71)	(31.05)
Volunteering	0.39	0.39	0.52**	0.50**
	(0.26)	(0.27)	(0.22)	(0.21)
Attending Religious Meetings/Services	0.15	0.15	-0.21	-0.21
	(0.25)	(0.26)	(0.23)	(0.23)
First-stage F-stat	10.0898	10.1267	11.6553	12.8231

IV_1 indicates the exclusion of month dummies
IV_2 indicates the inclusion of month dummies
***p<0.01, **p<0.05, *p<0.1