THE ROLE OF MEANING IN A TIME-CONSTRAINED WORLD

A THESIS

Presented to

The Faculty of the Department of Economics and Business

The Colorado College

In Partial Fulfillment of the Requirements for the Degree

Bachelor of Arts

By

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March 2015

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March 2015

Economics

Abstract

This paper examines the way in which Americans use their time in an attempt to understand the role meaningfulness plays in time allocation. Data from the American Time Use Survey are used in both OLS and logistic regression models to determine the factors that influence how much people work and whether they work at all. Controlling for demographic characteristics, I use separate regressions for work, leisure, care taking, maintenance, and travel activities; this allows meaningfulness to differ by activity. I find that meaningfulness does play a significant role in the labor/leisure decision. Finding any activity meaningful is correlated with more hours worked for those in the work force, but finding non-work activities meaningful influences people to opt out. This analysis aims to shed light on how psychological factors and personal experience impact time allocation through the lens of the labor/leisure decision.

KEYWORDS: (labor/leisure decision, time allocation, meaning)

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Introduction

Time use studies have been used to criticize gendered differences in household labor and childcare, class differences in developmental opportunities for children, and health risks of a culture of working long hours, to name a few. Such studies have been carried out around the world and are an important data source for governments in making policy decisions. For this reason, the U.S. Department of Labor has conducted the American Time Use Survey for the past twelve years, collecting a representative sample from Americans including data on time use and demographic variables. This information is used to gain an idea of how Americans use their time and the ways in which various groups of people use their time differently.

Understanding how people use their time is important for developing an understanding of the human experience in order to create better policies. One dimension of how we experience time is meaning. Different people feel that different activities are more meaningful than others, and this meaningfulness dramatically affects our lives. Leading a meaningful life correlates with lower levels of depression, anxiety, and hopelessness and higher levels of workplace satisfaction and overall happiness (Steger, et. al. 2006, Steger, et. al. 2009, Mascaro & Rosen, 2008). In addition, meaningfulness found in certain activities has been found to correlate with better performance in those activities. One such example is meaningfulness found at work. People who find their job meaningful experience increased job satisfaction and overall happiness, both of which have been shown to be highly correlated with job performance (Wright & Cropanzano, 2000). With so many correlates, it only makes sense that meaning would affect the way we live in addition to our overall wellbeing.

To the best of my knowledge, no previous study has examined the effect of meaning on daily time use. My primary question of interest, then, is: how does meaningfulness affect what we do on a day-to-day basis? The present study focuses on meaningfulness as it relates to work. The specific questions this analysis focuses on are: does meaning affect how much we work on a week-to-week basis? Does it affect our choice to participate in the labor force? In this thesis I argue that meaningfulness does, indeed, affect the labor/leisure decision and highlight the ways in which this happens through the analysis of ATUS data.

Theory

The Labor-Leisure Tradeoff

This question falls under the umbrella of labor economics, specifically the study of the labor-leisure tradeoff, defined as the decision between consumption and leisure to maximize utility. Consumption is limited by wage and leisure is limited by the amount of time available. Individuals choose the amount they want to work based on the amount they want to consume. This effect is particularly clear when wage is increased ceteris paribus, as is shown in Figure 1 in Appendix 1. Point S in that graph shows someone whose motto is "work hard, play hard". This person will likely work more hours and enjoy a higher income. Point D shows someone whose motto is "waste not want not"; this person will likely lead a life of leisure but relatively low consumption. Leisure in this model is often thought of as a normal good. As income increases, "consumption" of leisure will increase as well.

Utility Maximization

Individuals choose different combinations of labor and leisure based on their individual preferences. An indifference curve can be drawn to illustrate all the possible combinations of labor and leisure from which an individual would derive equal amounts of utility. The location at which an indifference curve is tangent to the budget constraint marks the combination of income and leisure that maximizes utility. In choosing an optimal combination, individuals must make two choices: first, whether to work or not, and second, how much to work if they decide to work. Point E in Figure 2 shows the indifference curve of someone who decides to work. Point P in Figure 3 shows someone who decides not to work.

Income and Substitution Effects

Although individual preference determines the location of the indifference curve, this location can be manipulated by a change in wealth or wage. When there is an increase in wage, the demand for leisure tends to fall due to an increase in the opportunity cost of leisure. Thus, a wage increase may result in a rise in the amount of hours worked. This is called the substitution effect and is shown in the move from point e_1 to point e^* in Figure 4. However, an increase in either wealth or wage automatically increases utility because it enables the individual to consume more with the same amount of leisure. Leisure is a normal good, so an increase in wealth tends to increase demand for leisure as well. This tendency is called the income effect and is shown in the move from point e^* to point e_2 in Figure 4. Whether an increase in wage leads to an increase or decrease in leisure depends on which effect is stronger.

Literature Review

Demographic Predictors of Time Use

Before we get into analysis, it might be useful to clarify a few differences between theory and application with regards to labor economics. The classic labor-leisure tradeoff sorts activities into two categories: consumption and leisure. In a time-use context, any work done in the labor market contributes towards consumption and any other use of time is counted as leisure. While a stay at home mom, under this model, is assumed to simply be purchasing a large amount of leisure by opting out, she may in fact be specializing in household production (Gronau, 1976, Chiappori, 1997). Because of this insight, many, if not all, recent studies treat household production as a separate activity category (Mattingly & Sayer, 2006, Aguiar & Hurst, 2006, Bianchi, et. al. 2000, Mattingly & Bianchi, 2003).

Bhat and Misra (1999) rename the three categories to allow for easier translation in applied work: subsistence, maintenance, and discretionary activities. Subsistence and discretionary activities are different ways of saying work and leisure. However, maintenance provides a more broadly defined version of household production that will be particularly useful in this analysis. Maintenance is any activity that satisfies household or personal physiological or biological needs. Notice that whereas household production focuses on the conservation of the household only, maintenance activities include personal upkeep as well.

The new category triad still fails to account for certain activities – what category do sleeping, commuting, or taking care of a child fall under? Feldman & Hornik (1981) create a fourth category for “necessities” (i.e. eating, sleeping, etc.). As they point out

though, time spent towards necessities varies minimally both for the individual and across individuals within the same culture. This relative consistency allows us to ignore necessities with minimal harm done to our analysis. Solberg & Wong (1992) include work-related travel time (like commuting to work) as a fourth variable in their analysis. They find that travel time is a significant factor in home production and suggest that it be included in future research on time allocation.

Caretaking has also been studied as a category separate from work, leisure, and maintenance. Mattingly & Bianchi (2003) found that childcare contributes in part to the disparity in leisure time enjoyed by men and women. Childcare, therefore, plays an important role in time allocation and should be considered.

I settled on five categories overall: work, maintenance, caretaking, leisure, and travel. A list of activities and their categories can be found in Appendix II.

Within the context of the labor-leisure decision, countless studies have found a relationship between time use and certain demographic factors, especially gender (Mattingly & Bianchi, 2003). Women tend to spend less time participating in leisure activities and more in childcare (Brines, 1994). This leads to women feeling rushed and, ultimately, scaling back hours or opting out of the workforce (Mattingly & Sayer, 2006).

Age is also an important predictor of time use. People in their mid-thirties report having less free time, mostly due to the large amount of time needed to provide care for young children. Time spent in unpaid household activities increases with age after 50, which corresponds with a growing number of retirees at that age (Krantz-Kent, 2009). Number and age of children is a strong predictor of time use as well. People with children allocate time away from work, leisure, and housework in order to provide childcare

(Mattingly & Sayer, 2006). Education is less strong a predictor, although a higher level of education has been correlated with more time at work (Aguiar & Hurst, 2006). This is at least partially attributable to the idea that with increased human capital comes an increased opportunity cost of not working (Bianchi, et. al. 2000).

Other demographic factors that have been found to correlate with time use include income and race. Those in the highest quintile of income have about four hours less free time per week than those in the second quintile (Robinson & Godbey, 2010). In a study published in 2000, Bianchi et. al. found that couples in which both partners were minorities spent more time towards housework than did couples in which both partners were white. This finding was statistically significant even when all other variables previously mentioned were controlled for. Thus, gender, age, household makeup, education, income and race should be taken into account in my analysis.

Meaningfulness

Time use research is aplenty, especially since the American Time Use Survey began in 2003. Meaning has had its time in the spotlight as well, although it tends to interest psychologists more than it interests economists. The seminal text of the study of meaningfulness was published in 1963 by Viktor Frankl, titled "Man's Search for Meaning". Frankl proposed that finding meaning in life is key to human survival and wellbeing. This hypothesis catalyzed a generation of psychologists to test his theory. Indeed, since then, a life without meaning has been found to be linked to depression, anxiety, hopelessness, and general psychological distress (Steger, et. al. 2009, Mascaro & Rosen, 2008). A meaningful life is linked to satisfaction in work and life as well as overall happiness (Steger, et. al. 2006).

Meaningful activities are associated with leading an overall meaningful life in two ways (Eakman, 2013). Because life is made up of a series of activities, meaningful activities lead directly to a meaningful life. In addition, meaningful activities encourage psychological health through providing opportunities to satisfy the human needs of interconnectedness and competence. It might be expected, then, that activities that provide such opportunities are preferable to those that do not.

Economists, too, have found uses for Frankl's observation, mostly with regard to job satisfaction. Cartwright & Holmes (2006) conduct an extensive literature review on the connection between meaning and job satisfaction and conclude that a successful workplace provides opportunities for its employees to create identity and meaning. Ideally, a job offers the employee a means to improve the world and so achieve ""a sort of immortality" (Handy, 1998) by what is left behind". Organizations that provide an atmosphere in which employees feel they are creating a meaningful world reap the benefits of higher employee satisfaction, retention, and engagement. Indeed, people who feel their work is meaningful experience higher levels of both job satisfaction and overall happiness, both of which are positively correlated with job performance (Wright & Cropanzano, 2000).

Employees find meaning at work not only through the job itself but also through the creation of identity through social interactions (Cartwright & Holmes, 2006). Indeed, meaningfulness is thought to "unfold in conjunction with other processes, such as the development of identity, relationships, and goals" (Steger, Oishi, & Kashdan, 2009). A successful workplace provides the opportunity to develop all three of these traits.

It seems, then, that meaning plays a hugely important role not only in the workplace but also in life as a whole. More meaningful activities serve to improve psychological health and increase meaning found in life. While labor economics assumes a labor-leisure tradeoff to maximize utility, there is no way to know where exactly a person's utility function falls without trail and error. Meaning may play a part in the location of the utility curve, and, if so, would affect the labor-leisure decision. This study seeks to observe the effect of meaningfulness on the labor-leisure decision. Does meaningfulness affect what we do on a day-to-day basis? Does it affect our decision to participate in the labor force? In what ways?

Data and Methodology

Data used for this analysis is taken from the 2013 American Time Use Survey (U.S. Department of Labor, 2013). The ATUS has been actively collecting data about time use on a national level since 2003, after a 12-year developmental period. It draws its sample from respondents to the Current Population Survey, reaching out to about 60,000 households every month. Households are chosen so as to be representative of the nation as a whole with regards to state of residence, race/ethnicity, and the age and presence of children and adults in the household. 11,385 households were surveyed in 2013 using responses from an equal number of individuals. The response rate for 2013 was 49.9%, more than 5 percentage points below average. Surveys were administered using a computer-assisted telephone interview. Half of respondents were contacted during the week (10 percent each weekday) and half were contacted over the weekend (25 percent per weekend day) (U.S. Department of Labor, 2014).

The survey data is split into one main dataset and smaller supplemental data sets. The main data set consists of demographic and activity-oriented information garnered from the ATUS along with information from the Current Population Survey. I also used the Well-Being supplement, which asked questions about the emotions associated with each activity, along with questions about general well-being.

After answering demographic background questions, respondents were asked to think about the period from 4 A.M. the previous day to 4 A.M. on the current day. They were asked to list every activity they had done during that period and for how long. A computer then generated three periods, of two hours in length, at random. These periods

were the subject of the Well-Being dataset. The interviewer asked seven questions about the activity that the respondent had reported for that time period. Five of the questions involved rating, on a scale from zero to six, the emotions that were felt during the activity. Emotions that were included were happy, tired, stressed, sad, and in pain. The question for happy, then, would be "From 0-6, where a 0 means you were not happy at all and a 6 means you were very happy, how happy did you feel during this time?" The sixth question was about meaningfulness: "From 0 to 6, how meaningful did you consider what you were doing? 0 means it was not meaningful at all to you and a 6 means it was very meaningful to you." The seventh question was a yes or no question inquiring whether or not the respondent had been with anyone, including over the phone, at that time.

Variables

Table I in Appendix II presents a list of all variables, their corresponding ATUS question, and how they are measured.

Dependent Variables - I used labor force status and hours per week usually spent working as dependent variables. Labor force status was made into a binary variable indicating whether or not the respondent is in the labor force, while hours worked per week is a continuous variable.

Explanatory Variables - Meaning is the main variable on which this analysis focuses. To incorporate it into the model, I created five different meaning/activity variables: *m_work, m_leisure, m_maintenance, m_care,* and *m_travel.* Each variable represents the meaning found in a particular activity. For example, *m_work* is the meaning found in only work activities, taking on integer values between 1 and 7.

Control Variables - I started out using as control variables age, sex, race, education, number of children in the household, whether or not there is a toddler in the house, hours spent providing secondary childcare, family income, sector, and occupation. Age is a continuous variable that takes on values from 23 to 85. Sex is binary and equal to zero if the respondent is a female and one if male. Race is divided into three categories: white, black, and minority. White is the base group, so I created two binary variables: black is equal to one if the respondent is black and zero if otherwise, minority is equal to one if the respondent is anything besides just black or just white and equal to zero if otherwise. Education is split into five categories: less than a high school diploma (the base group), high school graduate or G.E.D., some college or Associate's degree, Bachelor's degree, and Master's and other graduate degrees. Each was equal to one if the respondent had the corresponding level of education and zero if not.

Children were defined by the ATUS as anyone under the age of 18. The number of children in the household, then, is a continuous variable that measures the number of people under the age of 18 in the household. I defined toddler as anyone under the age of 6 and created a binary variable equal to one if there was a toddler in the house and zero if not. Hours spent providing secondary childcare measures the amount of time the respondent is "looking after" a child while doing something else. This is a measure of time contamination – as mentioned in the Literature Review section, time contaminated by childcare has been found to significantly affect time use.

Family income was originally measured in sixteen brackets: one for an annual household income of less than $5,000, one between $5,000 and $10,000, and so on. I combined these into three categories: one for an annual household income of less than

$20,000, one between $20,000 and $100,000, and one above $100,000. The categories were taken from a study by Kahneman, Kreuger, Schkade, Schwarz, & Stone (2006). I created two binary variables, one for the low-income group and one for the high-income group, leaving the middle-income group as the base.

Finally, the job trait variable, sector, was compressed from eight categories to four: private for profit (the base category), government, private not for profit, and self-employed. Sector was only included in the OLS regression because many people who were not in the work force did not have a sector to provide.

Final Model

The labor-leisure decision includes two choices: whether or not to work, and how many hours to work (if one decides to work). Addressing two decisions will require two separate regressions. OLS is often used to compare the amount of time different types of people spend doing certain activities. We might use OLS to evaluate whether the amount of leisure time a person enjoys depends on the extent to which the individual finds her job meaningful. A logistic regression may be used to evaluate the choice to work at all. If we hypothesized that finding housework and childcare more meaningful drives people to opt out of the workforce (or work part time), we could test our theory using a logistic regression.

At first I included all meaning/activity interaction terms in the same equation. This resulted in a compact model (I only had one regression to run), but one with more than a few flaws. I found that using one model to examine all meaning/activity interaction variables only works if the equation for each interaction term is the same. Imagine, however, that income matters more when considering work than when

considering housework. This is feasible: someone with a large family income might have the option to cut back on work hours, but dishes need to be done regardless of income. I decided, then, to split the original equation into five, one separate equation for each meaning/activity interaction term.

I also got rid of a few variables that I had originally intended to use, mainly occupation and *m_education*. In order to include occupation I would have had to omit all observations for which it was left blank. Out of the 17,122 observations for which all other information was present, only 6,095 had occupation data. I decided to leave out occupation, then, in order to maximize the number of observations. This came at a minimal loss since occupation was one of two controls for type of job (the other being sector, which is still included).

The meaning/education interaction term was originally included for a lack of other category in which to place studying or attending class. However, less than 100 observations belonged in this category. In addition, there is a possibility that educational activities may affect number of hours worked regardless of meaning. Students are much more likely to work only part-time or not at all. This combination of possible collinearity and very few observations provided enough reason for me to omit the interaction term entirely.

I ended up with the same model for both the OLS and logistic models, although I omitted sector in the logistic model:

$$\begin{aligned} hoursworked \\ &= \beta_0 + \beta_1 m\_activity + \beta_2 age + \beta_3 sex + \beta_4 race + \beta_5 education \\ &+ \beta_6 numberofchildren + \beta_7 toddler + \beta_8 hoursofcaretaking \\ &+ \beta_9 income + \beta_{10} sector \end{aligned}$$

Example Observations

I present three observations in Appendix III in hopes of better demonstrating what my data look like. The first observation corresponds to Respondent 1. In my data, each observation has a corresponding 14-digit identification code to ensure anonymity, which I omit in this demonstration. All other values that are in my data set are included presently.

Respondent 1 and Respondent 2 were taken from the data set I used for the logistic regression focusing on leisure. This data set includes only observations for which all relevant variables are accounted for and the activity listed is leisure. Respondent 1 is a black woman in the labor force with no children and an annual income of less than $20,000. Respondent 2 is a white woman not in the labor force with three children, one of which is under the age of six. She spent 9.8 hours the previous day fulfilling caretaking duties. Both respondents participated in a leisure activity the previous day (if they hadn't, they wouldn't be in this data set). Respondent 1 rated her leisure activity the most meaningful it could have been at a 7, while Respondent 2 rated her leisure activity mildly unmeaningful at a 3.

Respondent 3 was taken from the data set I used for the OLS regression that focused, once again, on leisure. This is a 59 year-old, middle-class man who works a 40-hour work week, with no children under the age of 18. He participated in a leisure activity the previous day (again, all observations for which the activity was not leisure were omitted), and rated it as meaningless. Notice that this observation has three more variables than the previous two: *government, private not for profit,* and *self-employed*. This person falls in the base group for sector, private for profit.

OLS Results

Before we get into analysis, a quick explanation of the regressions I run might be helpful. The dependent variable for the OLS regression is hours worked, measured as hours usually worked per week for pay. Hours worked is a continuous variable that takes on integer values.

I use five different data sets for my OLS regressions, one for each different activity. For example, the first regression I ran focused on the work activity. As a reminder, my original ATUS data set has a variable identifying whether each activity was work, leisure, caretaking, maintenance, or travel. It also has a variable indicating, on a scale from one to seven, the meaning the respondent got from that activity. For the regression focusing on the work activity, I dropped all observations whose activity was not work. I was able, then, to run a regression identifying which factors predict hours worked when considering the meaningfulness of someone's job. For the second regression, which focused on leisure, I dropped all observations whose activity was not leisure. The resulting regression identified the factors that predict hours worked when considering the meaningfulness of someone's leisure. I did the same thing for each OLS regression, changing which observations I dropped based on which activity I wanted to focus on.

The coefficient on the *meaning* variable can be interpreted as the change in the amount of hours someone is expected to work if they increase meaning by one point. Again, meaning is measured on a scale from one to seven. A *meaning* coefficient of .03, then, would mean that if one person rates the meaningfulness of her work as a 1 and another person rates the meaningfulness of her work as a 2, the second person is expected

to work .03 hours more per week. If one person rates his *meaning* a 1 and another rates his a 7, the latter is expected to work .03(6), or .18 hours more per week.

Activity: *work*

$$hoursworked = 5.865654(sex) - .0957335(age) - 3.150485(minority) + 2.899829(masters)$$
(standard error) (.5952599) (.025779) (1.08298) (1.523862)
(t-statistic) (9.85) (-3.71) (-2.91) (1.90)

$$+ 2.291921\ (selfemployed) - 4.311396(inclow) + 2.180236(inchigh) + .4265168(meaning) + 41.35718$$
(.9429921) (.9672085) (.739009) (.1745578) (.1745578)
(2.43) (-4.46) (2.95) (2.44)
(19.17)

Above is the equation that I found significant in predicting hours worked when considering work as an activity. Again, this equation describes the data set in which all leisure, maintenance, caretaking, and travel activities were dropped. The *meaning* variable, then, describes the meaning each respondent found in work. The above equation only includes \the variables that were significant to at least a 10% level. A chart of all variables and their significance can be found in Appendix II.

As would be expected from previous literature, sex has the largest coefficient and is significant down to .1%. Sex is equal to zero if the respondent is a female and one if male. A positive coefficient of 5.9 means that men work 5.9 hours more per week than women, all else equal. Being in the low-income group also has a large (although negative) effect on hours worked and is significant down to .1%. A person in a low-income family is expected to work 4 hours less than someone who is not. Although *age* has the smallest coefficient it should not be written off since it is the only continuous variable in this equation. For each year gained, a person is expected to work almost .1 hour less. However, over the course of a lifetime this can add up: a 60-year old is expected to work 3.83 hours less than a 20 year-old.

The variable of interest is *meaning*, which has the smallest coefficient, second only to *age*. A coefficient of .427 means that someone who rates work as having a meaningfulness of 1 is expected to work almost half an hour less per week than someone who rates work at a meaningfulness of 2. When we compare high meaning to low meaning, we find that someone who finds work to be meaningless (1) likely works 2.56 hours less per week than someone who finds work the most meaningful (7). From just this regression, we see that meaning is a bit like age: marginal differences make little difference, but large differences can cause a significant (both economically and statistically) effect.

Activity: *leisure*

$$hoursworked = 5.391552(sex) - .134674(age) - .56137(numberofchildren) - 2.002836(toddler)$$
(.3660283) (.0153128) (.2269604) (.4580105)
(14.73) (-8.79) (-2.47) (-4.37)

$$-.1023856(hourschildcare) + 2.4403(black) - 1.668581(minority) + 2.882014(masters)$$
(.049692) (.5219834) (.7944762) (.8797123)
(-2.06) (4.68) (-2.10) (3.28)

$$-1.457785(privatenonprofit) - 2.344914(selfemployed) - 6.262359(inclow) + 1.840097(inchigh)$$
(.6594588) (.6225575) (.6075227) (.455172)
(-2.21) (-3.77) (-10.31) (4.04)

$$+.2500699(meaning) + 43.35239$$
(.0960378) (1.289591)
(2.60) (33.62)

Above is the equation that describes the number of hours usually worked per week when considering leisure. Sex and low income are, again, the two largest explanatory variables. However, in this equation, there are many more significant independent variables. All family makeup variables included in the regression (number of children, whether there's a toddler in the house, hours of childcare) are significant to 5%. Interestingly enough, the coefficient on *black* is positive while that on *minority* is negative. People who select "black only" as their race, then, are expected to work 2.4

hours more per week than people who select "white only". People who selected anything other than "white only" or "black only" are expected to work 1.7 hours less than the "white only" group. This is notable, as previous literature on the allocation of housework make no distinction between different minority groups (Bianchi, et. al. 2000). If anything, this difference suggests that more specialized groups beyond "white" and "minority" could lend a more accurate picture of how people use their time.

Again, the meaning variable has one of the smallest coefficients, behind *age* and *hourschildcare*, although it is significant to 1%. A coefficient of .25 means that a person who ascribes the maximum value to leisure (7) can be expected to work 1.5 hours more per week than someone who doesn't value leisure at all (1). This is a strange finding – we would expect that people who value something more would make more time for that activity. A positive coefficient, though, says the opposite: people who value leisure more tend to work more.

Activity: *maintenance*

$$hoursworked = \underset{\substack{(.3301118)\\(19.49)}}{6.434733(sex)} - \underset{\substack{(.0144533)\\(-11.52)}}{.1664493(age)} - \underset{\substack{(.4140109)\\(-1.75)}}{.7261329(toddler)} - \underset{\substack{(.0455493)\\(-4.11)}}{.1870976(hourscaretaking)}$$

$$+\underset{\substack{(.5137066)\\(3.26)}}{1.674628(black)} + \underset{\substack{(.8060078)\\(2.00)}}{1.612104(highschool)} + \underset{\substack{(.8200697)\\(2.66)}}{2.177299(bachelors)} + \underset{\substack{(.8763485)\\(4.31)}}{3.776324(masters)}$$

$$+\underset{\substack{(.4249006)\\(1.88)}}{.7994609(government)} - \underset{\substack{(.5943565)\\(-2.10)}}{1.246972(privatenonprofit)} - \underset{\substack{(.5520284)\\(-5.92)}}{3.268475(selfemployed)} - \underset{\substack{(.570457)\\(-11.98)}}{6.836722(inclow)}$$

$$+\underset{\substack{(.4078021)\\(4.55)}}{1.857447(inchigh)} + \underset{\substack{(.0882904)\\(2.56)}}{.2257843(meaning)} + \underset{\substack{(1.235392)\\(34.67)}}{42.83697}$$

Sex and low income are once again the largest predictors of hours worked, but this time education variables are the third most important predictors. Having earned a master's degree or above is more important that having earned a bachelor's degree, which

in turn is more important than having earned a high school diploma. This makes sense, since the "base" group I used was people with less than a high school diploma. As people earn higher degrees, they develop more human capital, their opportunity cost of not working increases, and we can reasonably expect them to work more than people without high school degrees. It is also worth noting that people who only finished some college were not significantly different from people without high school degrees in this regression, although all other education levels were (even having a high school degree).

As a reminder, maintenance activities include things like eating and drinking as well as anything done for personal or household maintenance (showering, vacuuming, etc.) Meaning, once again, has a relatively low coefficient of about .23. A positive number poses the same question as that in the previous equation: why do people work more if they find maintenance activities more meaningful? Let's remember, though, that previous literature suggests that leading an overall meaningful life results in increased satisfaction in work and life (Steger, et. al. 2006). It might make sense, then, that people who find meaning in things in general, whether that be work or leisure or maintenance, would be happier at work and might therefore choose to work more hours.

Activity: *travel*

$$hoursworked = \underset{\substack{(.3865306)\\(17.72)}}{6.847514}(sex) - \underset{\substack{(.0165337)\\(-7.47)}}{.1235552}(age) - \underset{\substack{(.2308734)\\(-3.11)}}{.7171443}(numberofchildren) - \underset{\substack{(.4686844)\\(-2.66)}}{1.246712}(toddler)$$

$$- \underset{\substack{(.0564808)\\(-2.79)}}{.1576102}(hourscaretaking) + \underset{\substack{(.5664231)\\(3.09)}}{1.751721}(black) + \underset{\substack{(.9578771)\\(2.52)}}{2.413832}(masters) - \underset{\substack{(.7204122)\\(-3.47)}}{2.497173}(privatenonprofit)$$

$$- \underset{\substack{(.6779324)\\(-3.14)}}{2.128159}(selfemployed) - \underset{\substack{(.6622562)\\(-7.49)}}{4.963303}(inclow) + \underset{\substack{(.4711854)\\(4.43)}}{2.0887}(inchigh) + \underset{\substack{(1.337562)\\(32.81)}}{43.88092}$$

In this regression, both *privatenonprofit* and *selfemployed* are economically and statistically significant predictors. People who work in the non-profit sector or

are self-employed work more than two hours less per week than people in our base group, private for profit. Once again, all of our family makeup variables are significant and negative. Both high- and low-income are significant, although the coefficient on *inclow* is negative while that on *inchigh* is positive. This tells us that there is a positive relationship between hours worked and income – as income rises, hours worked rises, too.

This regression is made up only of people who answered a meaningfulness question about "traveling", or any activity in which the primary goal is to be somewhere else. Things that fall under this category include the daily commute, chauffeuring children to and from school, driving, walking taking the bus, etc. Meaning, in this regression, is not significant even at a 10% level. One possible explanation is that people generally aren't able to make marginal changes to their daily commute. A person can't decide to commute less because she doesn't find it meaningful, and most people likely wouldn't drive in circles to lengthen their commute if they find it meaningful. Under these circumstances, it makes sense that meaning found in travel doesn't affect the amount of time spent at work.

Activity: *care*

$$hoursworked = \underset{(.7278906)}{\underset{(11.81)}{8.599652}}(sex) + \underset{(.0405874)}{\underset{(-3.97)}{.1611101}}(age) - \underset{(.3403028)}{\underset{(-2.33)}{.7915991}}(numberofchildren) - \underset{(.7528729)}{\underset{(-1.65)}{1.238569}}(toddler)$$

$$+\underset{(1.934884)}{\underset{(1.87)}{3.621449}}(highschool) + \underset{(1.860948)}{\underset{(2.01)}{3.373275}}(somecollege) + \underset{(1.886992)}{\underset{(2.39)}{4.51584}}(bachelors) + \underset{(1.962808)}{\underset{(2.71)}{5.322606}}(masters)$$

$$-\underset{(1.08568)}{\underset{(-2.30)}{3.013843}}(privatenonprofit) - \underset{(1.334404)}{\underset{(-2.13)}{2.84645}}(selfemployed) - \underset{(1.512694)}{\underset{(-3.62)}{5.470606}}(inclow) + \underset{(2.983531)}{\underset{(13.49)}{40.26102}}$$

Although it isn't surprising that *sex* is once again the largest predictor of hours worked, the magnitude of its coefficient in this regression is worth noticing. In

all previous regressions *sex* had a coefficient of between 5.4 and 6.9; in this one, it has a coefficient of 8.6. Sex, then, is much more important when we look at only people who provide childcare. This is exactly what the literature would lead us to expect: according to Mattingly & Biachi (2003), women and men enjoy different amounts of leisure time in part because women tend to give more of their time to primary and secondary childcare. This regression supports the idea that women aren't able to work as many hours as men if they have to worry about childcare.

Again, meaning is not a significant predictor of hours worked in this regression. Perhaps the reason for this is that childcare is an inflexible activity, as is travel. Working parents have to watch their kids regardless of whether they find it meaningful. Further, they have to work a certain number of hours to keep their job even if they'd rather be home with their family. This leaves working parents with little wiggle room: they are going to work and watch their kids regardless of whether they find either meaningful, because that's what they have to do.

The OLS Model As A Whole

Having a master's degree or higher was significant to 1% in all but one regression – that which examined work activities. Not only was it the most significant education variable, *masters* also consistently had the largest coefficient. The other three education variables were only significant in one or two regressions. All education coefficients were positive, and grew as the level of education rose. The exception to this trend is in the regression involving caretaking activities, in which the coefficient on *highschool* was actually larger than the coefficient on *somecollege,* albeit by a mere .25. Considering that

highschool is only significant to 10% and its confidence interval includes zero, this abnormality shouldn't be taken too seriously.

The regression involving caretaking stood out, as all education variables were significant to some degree and at least twice as large as in any other regression. Sex was also unusually large in the caretaking regression, with a coefficient of more than 8 while its coefficient in all other regressions was around 5 or 6. Caretaking plays an important role, then, in how education and sex affect the average number of hours a person works. When considering caretaking, the gender gap is intensified and the gap between educated and non-educated increases.

Sex, age, and low income are all statistically significant to 1% in every regression. Women work between 5.4 and 8.6 hours less per week than men. As age increases we can expect a decrease in the number of hours worked, even when controlling for childcare and number of children. Previous research has suggested that this is due to an increasing likelihood of retiring with age, which might be reflected in a scaling back of hours leading up to retirement (Kent, 2009). People in low-income families can be expected to work less than people in medium-income families and even less than people in high-income families.

Of the five *meaning* terms, only those in the regressions that contained work, maintenance, and leisure were significant. Of these, *meaning* in the work regression had the largest coefficient. Someone who finds work very meaningful is expected to work 2.56 more hours per week than someone who doesn't find work meaningful at all. Meaning found in leisure and maintenance have the same directional effect, although almost half the magnitude. Someone who finds leisure or maintenance very meaningful is

expected to work 1.5 and 1.35 hours more per week, respectively, than someone who finds those activities meaningless.

The positive coefficients on *meaning* in these three regressions provide an unexpected insight: people don't allocate time away from work to do what they find more meaningful. In fact, the data show quite the opposite; finding any activity meaningful results in a higher number of hours worked, as long as the activity falls under work, leisure, or maintenance. Perhaps if people lead more meaningful lives, they are happier at work and are therefore inclined to stay longer. Indeed, previous studies have found a connection between leading a meaningful life and workplace satisfaction (Steger, et. al. 2006, Cartwright & Holmes, 2006). Meaning found in travel and caretaking activities, however, has no effect on the number of hours worked. This could be explained by the inflexibility of the two activities; commuting and caretaking are necessary parts of life, regardless of whether they are meaningful. It seems, then, that people who lead more meaningful lives often work more hours and are not deterred by their daily commute or their duties as caretakers.

The mean of the dependent variable, *hoursworked,* was 40.82 with a standard deviation of 12.42. The range of observations fell between 2 and 110 hours per week. Most people in my data set, then, worked between 28 and 53 hours per week. This suggests that some people do indeed scale back the number of hours they work as other needs arise, while others work quite a bit more than the average work week. Because the average of *hoursworked*, 40.82, was almost exactly that of the typical 40-hour work week, we can conclude that enough people work more than the average work week to offset those that work less. Indeed, people tend to work 40 hours per week even when we

control for family makeup, income, education, sex, age, race, and sector. Even when scaling back, people don't tend to decrease the number of hours they work below about 28. We can conclude, then, that people in the work force do have the opportunity to scale back *but only to a certain extent*.

Logistic Results

The data I use for logistic regressions is split up in exactly the same way as for OLS regressions. I ran four logistic regressions, each including a different activity: leisure, maintenance, travel, and caretaking. I decided to omit the regression in which all activities were work, since the logistic regressions measure whether or not someone is in the labor force. If someone were to give paid work as their activity, they would clearly be in the labor force. Including the work regression, then, would not yield relevant results.

This regression uses labor force status as a dependent variable. Labor force status is a binary variable equal to zero if the respondent is in the labor force and equal to one if not. Because we're now using a logistic regression, the coefficients are interpreted a little differently. The coefficients can be used to find how each independent variable affects the odds of someone not being in the labor force (*laborforcestatus* = 1). For example, let's assume that the coefficient on *numberofchildren* is .135. To calculate the effect number of children has on the odds of not being in the labor force, we simply calculate $e^{.135} = 1.1445$. This would be interpreted as follows: with each additional child, it is 14.45% more likely that a person will not be in the labor force.

Activity: *leisure*

The equation I used for this regression is below. It is the only regression for which every independent variable was significant to at least 10%. In fact, every explanatory variable was significant down to 1% with the exception of *black*. Without calculating anything, we can see that the two largest coefficients are *masters* and *inclow*. Sex, which was among the largest two for every OLS regression, barely makes the top five here.

Again, education coefficients grow increasingly negative as we get farther away from the base group. The odds that someone with a master's degree or higher is in the work force are 205% higher than the odds of someone who didn't earn a high school diploma. As with the OLS regressions, this finding reinforces an opportunity cost model. Being in the low-income group has almost an equally large effect, but in the opposite direction. The odds of being out of the labor force for someone in the low-income group are 186% higher than someone in the average income group. This relationship is likely not a sign that people with low incomes opt out more, but a result of unemployment.

$$laborforcestatus = -.6541934(sex) + .0898095(age) + .2052385(numberofchildren)$$
(standard error) (.0324451) (.0013935) (.0209134)
(z-statistic) (-20.16) (64.45) (9.81)

$$+.7626621(toddler) + .0690334(hourschildcare) - .0828147(black) + .2466125(minority)$$
(.0451027) (.0051346) (.0447434) (.0710298)
(16.91) (13.44) (-1.85) (3.47)

$$-.4253519(highschool) - .5990048(somecollege) - .7106239(bachelors) - 1.116729(masters)$$
(.0579735) (.0586875) (.0629148) (.0706379)
(-7.34) (-10.21) (-11.30) (-15.81)

$$+1.051352(inclow) - .395477(inchigh) + .0309367(meaning) - 5.676852$$
(.0424428) (.046778) (.0059605) (.10965)
(25.03) (-8.45) (5.19) (-51.77)

Meaning has the lowest coefficient in this regression, even in relation to age. Each unit increase in meaning causes the odds of being out of the labor force to increase by 3.1%. A person who finds leisure the most meaningful, then, is 18.6% more likely to be out of the labor force than someone who doesn't find leisure meaningful at all. A positive coefficient on *meaning* is exactly what we would expect for this regression: the more meaningful a person's leisure activities, the more likely he is to opt out. Unlike the OLS models, this finding supports the hypothesis that people allocate time towards what they find meaningful.

Activity: *maintenance*

$$laborforcestatus = -.6381073(sex) + .0897816(age) + .2040698(numberofchildren)$$

(.0324915) (.001394) (.0209265)
(-19.64) (64.41) (9.75)

$$+.7649399(toddler) + .0691655(hourschildcare) + .2421347(minority) - .4300008(highschool)$$
(.0451411) (.0051393) (.070961) (.0579987)
(16.95) (13.46) (3.41) (-7.41)

$$-.6008859(somecollege) - .7096451(bachelors) - 1.115222(masters) + 1.055535(inclow)$$
(.0587261) (.0629469) (.0707178) (.0420094)
(-10.23) (-11.27) (-15.77) (25.13)

$$-.3965642(inchigh) + .0329418(meaning) - 5.702686$$
(.0468117) (.0054982) (.1100138)
(-8.47) (5.99) (-51.84)

Again, the largest coefficients are those on *masters* and *inclow*. Toddler has the third largest coefficient; the odds of being out of the labor force are 114.9% higher if the respondent has a child under the age of six. Every variable included in this equation is significant to 1%, although *black* is omitted because it was not significant even to 10%. Once again, we see a significant (both statistically and economically) difference between *black* and *minority*, although there is no statistically significant difference between *black* and the base group *white*. In comparison, *minority* is not only significantly different from *white* at a 1% level, but economically significant as well; minorities are 27.4% more likely to be out of the work force when compared to the base group.

As with the *leisure* regression, we get a positive coefficient for *meaning*. As people in this data set find maintenance activities more meaningful, their likelihood of being out of the labor force increases by 3.35%. A person who finds maintenance activities extremely meaningful has a 20% greater chance of being out of the work force than someone who finds maintenance activities meaningless. It seems that people tend towards what they find meaningful; in these first two logistic regressions, people who find leisure or maintenance more meaningful are more

likely to stay at home. Unfortunately, though, there is no way of knowing whether meaning or action came first. In other words, how are we to know whether someone opted out of the workforce because he wanted to stay home and watch the kids or if he *had* to stay home and watch the kids and then developed a sense of meaning in doing so?

Activity: *travel*

$$labor force status = -.6488827(sex) + .09013(age) + .2033436(number of children) + .759274(toddler)$$
(.0324571) (.0013942) (.0209241) (.0451428)
(-19.99) (64.65) (9.72) (16.82)

$$+.0694841(hourschildcare) + .2438153(minority) - .4297092(highschool) - .6054118(somecollege)$$
(.005139) (.0709977) (.0580859) (.0588075)
(13.52) (3.43) (-7.40) (-10.29)

$$-.7171007(bachelors) - 1.122272(masters) + 1.05277(inclow) - .3972275(inchigh) - .049761(meaning)$$
(.063013) (.0707377) (.0420461) (.0468103) (.0068887)
(-11.38) (-15.87) (25.04) (-8.49) (-7.22)

$$-5.587088$$
(.1098393)
(-50.87)

As has been the case with each previous logistic regression, *toddler* has the third largest coefficient, while the number of children in the household and hours of childcare effect the dependent variable relatively little. All three variables fall under the umbrella of family makeup, so why are their coefficients so different? I considered the possibility that *toddler*, *numberofchildren*, and *hourschildcare* were correlated and tested to ensure that they weren't. Indeed, the highest correlation coefficient among the three variables was between hours of childcare and number of children at .5235, so I decided to keep all family makeup variables.

For the first time in the logistic regressions, the coefficient on *meaning* is negative. As meaning found in commuting increases, the likelihood of being in the labor force rises. This could be explained by the fact that people who work may

spend more time getting from one place to another than people who don't. This may also provide support for the idea that people find meaning in what they have to do – nobody takes time off work to commute, but perhaps if commuting is an unavoidable part of the day it doesn't hurt to make something meaningful of it. Someone who doesn't find their commute meaningful at all is 29% less likely to work than someone who finds their commute extremely meaningful.

Activity: *care*

$$labor force status = -.643109(sex) + .0909402(age) + .186033(number of children)$$
(.032475) (.001401) (.0210719)
(-19.80) (64.91) (8.83)

$$+.7528694(toddler) + .0686683(hours childcare) + .2387484(minority) - .4347012(high school)$$
(.0541248) (.0051538) (.0710434) (.0580472)
(16.68) (13.32) (3.36) (-7.49)

$$-.6084442(some college) - .7213753(bachelors) - 1.13446(masters) + 1.057183(in clow)$$
(.0587553) (.062977) (.0707039) (.042024)
(-10.36) (-11.45) (-16.05) (25.16)

$$-.40092(in chigh) + .0740427(meaning) - 5.690477$$
(.0468035) (.0105609) (.1099145)
(-8.57) (7.01) (-51.77)

Control variables in this last regression follow the same patterns as the other logistic regressions. Meaning, however, does no such thing: the coefficient is once again positive, but is more than twice the size of the meaning coefficients in the logistic regressions for *leisure* and *maintenance*. A person who finds caretaking very meaningful is 46% more likely to be out of the labor force than someone who finds caretaking meaningless. This number is true regardless of gender, age, family makeup, education or income. This finding suggests that people who have more meaningful caretaking roles tend not to be in the labor force.

The Logistic Model As A Whole

Unlike the OLS regressions, every explanatory variable was significant to 1% in every logistic regression, except *black*. Low income and having a master's degree or higher had the two largest coefficients. Sex, which was consistently in the top two largest coefficients in the OLS models, fell to fifth in the logistic models. The magnitude of each coefficient across the four logistic regressions was relatively constant. The difference between the largest and smallest coefficient for any one variable was never more than .02, with the exception of *meaning.* The difference between the smallest and largest coefficient on *meaning* was more than .04.

People who have children under the age of six were much less likely to be employed in my data, while people with more than a college degree were more likely. This makes sense in an opportunity cost model: the cost of going to work is higher for people with kids. Not only are there financial costs, like hiring a babysitter or nanny, but emotional costs of missing out on parts of the child's youth. The opposite is true for people with advanced degrees. They have invested more money and time into their careers than most and stand to lose more if they opt out.

My data suggest that as income falls the likelihood of opting out is higher. However, it is more likely that the causation goes the opposite way: families in which at least one person is out of the work force tend to be low-income. The correlation between income and labor force status may be a result of where I drew the line between low- and medium-income families. My cutoff for low income was $20,000 annual family income, and at the current minimum wage, the annual salary of one person is around $15,000. Two people making minimum wage, then, would fall into the middle-income group. Any

low-income family, by default, will have at least one person who is not in the labor force. This result, then, may be a result of the underemployment and unemployment suffered by low-income families rather than evidence of a correlation between work and income.

That meaning varied the most among data sets is a notable finding in itself. Meaning affects whether someone is in the labor force or not, and the extent of this effect is determined, at least in part, by the kind of activity one finds meaningful. Taken as a whole, the meaning coefficients tell a story closer to the one we might expect: as meaning found in travel increases, the likelihood of being in the work force increases as well. Participating in meaningful leisure, childcare, and maintenance activities tends to drive people out of the work force. Our initial hypothesis was that people tend towards things that they find meaningful. In other words, people are more likely to work if they find things related to work meaningful and less likely if they find non-work activities meaningful. Our findings from each regression support this hypothesis: the leisure, caretaking, and maintenance data sets all have positive coefficients on *meaning* and the travel data set has a negative coefficient on *meaning*.

Out of all of the regressions I ran, the activity for which meaning mattered most in predicting labor force status was childcare. It is important to remember that the coefficients reported are log odds. Each unit increase in meaning found in childcare leads to a $e^{.0740427}$, or a 7.7% increase in the likelihood of not participating in the labor force. The same number for a leisure activity is 3.1%; thus, finding meaning in caretaking is more than twice as powerful a predictor of labor force status than is meaning found in leisure.

The collective *meaning* coefficients lead me to a few conclusions. First, the significant difference between *meaning* coefficients supports the idea that not all non-work activities should be grouped together. As we saw from the logistic regression involving travel activities, some non-work activities can even behave as we would expect work to behave. *Meaning* in leisure and caretaking regressions are significantly different – not only are the coefficients statistically significant and different, but their confidence intervals do not intersect. This provides additional support, if any was needed, to the idea perpetuated by gendered time use analysts that leisure and caretaking/housework are two very separate activities (Brines, 1994, Mattingly & Bianchi, 2003, Bianchi, 2011).

While such a conclusion is nothing new, this study does find another aspect in which leisure and caretaking differ. Meaning found in caretaking matters more than does meaning found in leisure with regards to labor force participation. It seems that people opt out more often because they want to take care of their kids than because they want to have more time for leisure or maintenance. Women typically spend more time providing childcare than do men, even when controlling for how much either works (Mattingly & Bianchi, 2003). If people opt out more because of childcare, it makes sense that women shoulder the responsibility to opt out and watch the kids more frequently than men do.

Conclusion and Future Research

My original question was: how does meaning affect what we do on a day-to-day basis? I chose to focus on work and meaning in particular. Does meaning affect how much we work on a week-to-week basis? Does it affect our choice to participate in the labor force? My OLS results show that meaningfulness does affect how much we work on a week-to-week basis, although certain activities matter more than others. Meaningfulness found in travel and caretaking were found not to predict the number of hours worked per week. Among those activities that were found to predict hours worked, meaning found in work mattered the most. More activities (in fact, all activities) were found to be significant in predicting labor force participation. Meaning found in childcare mattered by far the most and that found in leisure the least. This is a quite different finding from the OLS regressions, in which meaning found in childcare was insignificant and leisure was the second most significant in predicting hours worked.

From my data there emerge two separate stories, one to explain how people in the labor force make decisions and one to explain why people choose to participate in the labor force. People who are in the work force put in more hours if they lead a meaningful life, and aren't swayed by childcare or commuting. People who are considering participating in the labor force, however, are more likely to work if they find their work or commute meaningful and more likely to opt out if they find leisure, caretaking, or maintenance meaningful.

Key to making sense of my regressions is the order of meaningful coefficients. In the OLS model, meaning mattered most in work, second most in leisure, third most in maintenance, and was irrelevant in travel and caretaking. Almost the exact opposite was

true for the logistic model: meaning mattered most in caretaking, then travel, followed by maintenance and leisure. Because the relationship between meaning and hours worked is almost opposite the relationship between meaning and labor force participation, it seems possible that the two are related. My data suggest that the leisure/labor decision, as it involves meaning, isn't a marginal one. People don't gradually decrease the number of hours they work as they become more interested in other activities, or even as they need to spend more time providing childcare. Rather, people decide whether to participate in the labor force knowing that, at the workplace, a certain number of hours is required regardless of childcare or commute time. If a non-work activity is meaningful enough, a worker may decide to opt out in order to ensure enough time for that activity. The real decision, then, is not made day-by-day as workers decide how many hours to work, but is made when the worker decides to participate in the workforce at all.

Future research into time use and psychological experience, especially meaning, is encouraged. While time use researchers have put considerable effort into determining demographic traits that are correlated with time use, little is known about how our experience of life affects the daily allocation of time. It would be interesting to go beyond the labor/leisure decision and look at how meaning affects time allocated towards leisure, childcare, and housework. Any research on time use is important as an insight into the way different groups of people live their lives. This knowledge informs policy and hopefully leads to reduced inefficiencies. Research into the way meaningfulness affects the labor-leisure decision is of importance to a wide range of institutions, and should certainly be continued.

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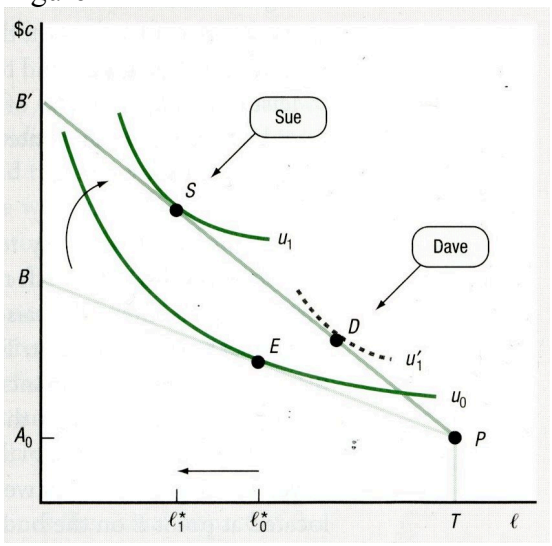
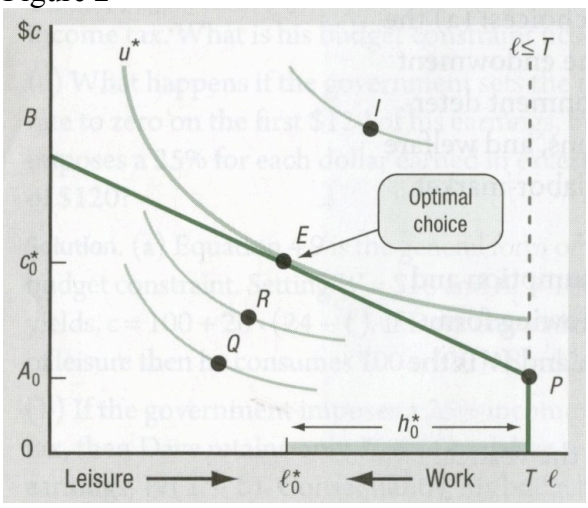
Appendix I

Figure 1



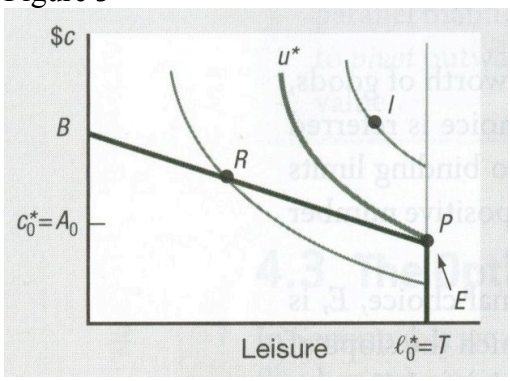
Source: Laing, D. (2011). *Labor economics: Introduction to classic and the new labor economics*. New York, NY: W.W. Norton & Company, Inc.

Figure 2



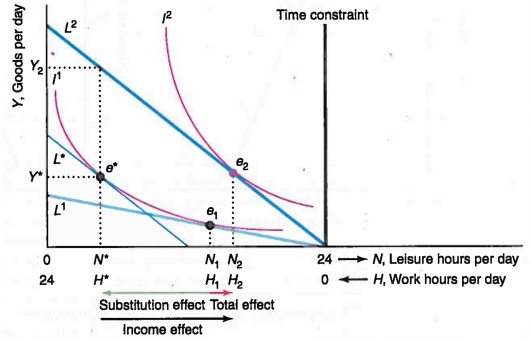
Source: Laing, D. (2011). *Labor economics: Introduction to classic and the new labor economics*. New York, NY: W.W. Norton & Company, Inc.

Figure 3



Source: Laing, D. (2011). *Labor economics: Introduction to classic and the new labor economics*. New York, NY: W.W. Norton & Company, Inc.

Figure 4



Source: Perloff, J.M. (2014). *Microeconomics: Theory and applications with calculus, third edition.* New Jersey: Pearson Education, Inc. pp.

Appendix II

Table 1		
Variable	**Corresponding Question**	**Measurement**
labor force status	Taken from Current Population Survey (hereafter CPS).	0 = in labor force 1 = not in labor force
hours worked	CPS; respondents were asked how many hours they usually work per week	Integer
m_maintenance *m_leisure* *m_education* *m_travel* *m_care*	"From 0 to 6, how meaningful did you consider what you were doing? 0 means it was not meaningful at all to you and a 6 means it was very meaningful to you."	1 = least meaningful 7 = most
age	CPS	Integer
sex	CPS	0 = female 1 = male
black *minority*	Respondents were given a list of 26 races and combinations of races to choose from.	For *black:* = 1 if respondent selected "black only" = 0 if other For *minority:* = 1 if respondent selected anything other than "white only" or "black only" = 0 if otherwise
highschool *somecollege* *bachelors* *mastersandabove*	"What is the highest level of school you have completed or the highest degree you have received?"	For *highschool*: = 1 if respondent's highest level of education completed is high school = 0 if otherwise
numberofchildren	CPS	Integer
toddler	Age of youngest child.	= 1 if under the age of 6 = 0 if otherwise
hourschildcare	Total time spent providing secondary childcare for all children.	Integer
inclow *inchight*	CPS	For *inclow*: = 1 if family income is less than $20,000 annually = 0 if otherwise
government *privatenotforprofit* *selfemployed*	CPS	For *government*: = 1 if employed by the government = 0 if not
service *sales* *farming* *construction* *production*	Major occupation category.	For *service*: = 1 if main job is in the service industry = 0 if otherwise

Table 2	
ATUS Activity Code	**My Recode**
Personal Care	Household & Personal Maintenance
Household Activities	Household & Personal Maintenance
Caring for & Helping Household Members	Caretaking
Caring for & Helping Non-household Members	Caretaking
Work & Work-Related Activities	Work
Consumer Purchases	Leisure
Professional & Personal Care Services	Household & Personal Maintenance
Household Services	Household & Personal Maintenance
Government Services & Civic Obligations	Household & Personal Maintenance
Eating & Drinking	Household & Personal Maintenance
Socializing, Relaxing, and Leisure	Leisure
Sports, Exercise, and Recreation	Leisure
Religious and Spiritual Activities	Leisure
Volunteer Activities	Leisure
Telephone Calls	Household & Personal Maintenance
Traveling	Travel

OLS Regressions – Dependent Variable: *hoursworked*					
	m_work	m_leisure	m_maintenance	m_travel	m_care
sex	5.865654*** (.5952599)	5.391552*** (.3660283)	6.434733*** (.3301118)	6.847514*** (.3865306)	8.599652*** (.7278906)
age	-.0957335*** (.025779)	-.134674*** (.0153128)	-.1664493*** (.0144533)	-.1235552*** (.0165337)	.1611101*** (.0405874)
numberofchildren	-.2604232 (.3377229)	-.56137** (.2269604)	-.2280178 (.2054742)	-.7171443*** (.2308734)	-.7915991** (.3403028)
toddler	-.205088 (.7379109)	-2.002836*** (.4580105)	-.7261329* (.4140109)	-1.246712*** (.4686844)	-1.238569* (.7528729)
hourschildcare	.0343462 (.1145935)	-.1023856** (.049692)	-.1870976*** (.0455493)	-.1576102*** (.0564808)	-.1138686 (.0893882)
black	-.7208676 (.8519096)	2.4403*** (.5219834)	1.674628*** (.5137066)	1.751721*** (.5664231)	-.187118 (1.183795)
minority	-3.150485*** (1.08298)	-1.668581** (.7944762)	-.6940494 (.6626726)	-.1573448 (.8030528)	-1.03675 (1.414654)
highschool	.5639287 (1.381139)	.074945 (.8055687)	1.612104** (.8060078)	.2662383 (.8872304)	3.621449* (1.934884)
somecollege	1.648243 (1.380411)	1.000419 (.7931901)	1.058487 (.8020683)	1.022497 (.8741295)	3.373275** (1.860948)
bachelors	1.637842 (1.413783)	.917029 (.8186759)	2.177299*** (.8200697)	.9221147 (.895212)	4.51584** (1.886992)
masters	2.899829* (1.523862)	2.882014*** (.8797123)	3.776324*** (.8763485)	2.413832*** (.9578771)	5.322606*** (1.962808)
government	-.2508053 (.7861969)	-.448773 (.485087)	.7994609* (.4249006)	.4401231 (.5149357)	.6580226 (.9632642)
privatenonprofit	-1.503437 (1.116514)	-1.457785** (.6594588)	-1.246972** (.5943565)	-2.497173*** (.7204122)	-3.013843** (1.08568)
selfemployed	2.291921** (.9429921)	-2.344914*** (.6225575)	-3.268475*** (.5520284)	-2.128159*** (.6779324)	-2.84645** (1.334404)
inclow	-4.311396*** (.9672085)	-6.262359*** (.6075227)	-6.836722*** (.570457)	-4.963303*** (.6622562)	-5.470606*** (1.512694)
inchigh	2.180236*** (.739009)	1.840097*** (.455172)	1.857447*** (.4078021)	2.0887*** (.4711854)	1.254287 (.8350159)
m_activity	.4265168** (.1745578)	.2500699*** (.0960378)	.2257843*** (.0882904)	.0435544 (.0954046)	.1501816 (.2490584)
_cons	41.35718*** (.1745578)	43.35239*** (1.289591)	42.83697*** (1.235392)	43.88092*** (1.337562)	40.26102*** (2.983531)
Adj. R^2	.1003	.1188	.1485	.1157	.1608
Note: Standard errors are in parentheses. * = 1% significance, ** = 5% significance, * = 10% significance.**					

Logistic Regressions – Dependent Variable: Labor Force Status				
	m_leisure	m_maintenance	m_travel	m_care
sex	-.6541934***	-.6381073***	-.6488827***	-.643109***
	(.0324451)	(.0324915)	(.0324571)	(.032475)
age	.0898095***	.0897816***	.09013***	.0909402***
	(.0013935)	(.001394)	(.0013942)	(.001401)
numberofchildren	.2052385***	.2040698***	.2033436***	.186033***
	(.0209134)	(.0209265)	(.0209241)	(.0210719)
toddler	.7626621***	.7649399***	.759274***	.7528694***
	(.0451027)	(.0451411)	(.0451428)	(.0541248)
hourschildcare	.0690334***	.0691655***	.0694841***	.0686683***
	(.0051346)	(.0051393)	(.005139)	(.0051538)
black	-.0828147*	-.0650432	-.0666761	-.0698238
	(.0447434)	(.0446592)	(.0447063)	(.0446719)
minority	.2466125***	.2421347***	.2438153***	.2387484***
	(.0710298)	(.070961)	(.0709977)	(.0710434)
highschool	-.4253519***	-.4300008***	-.4297092***	-.4347012***
	(.0579735)	(.0579987)	(.0580859)	(.0580472)
somecollege	-.5990048***	-.6008859***	-.6054118***	-.6084442***
	(.0586875)	(.0587261)	(.0588075)	(.0587553)
bachelors	-.7106239***	-.7096451***	-.7171007***	-.7213753***
	(.0629148)	(.0629469)	(.063013)	(.062977)
masters	-1.116729***	-1.115222***	-1.122272***	-1.13446***
	(.0706379)	(.0707178)	(.0707377)	(.0707039)
inclow	1.051352***	1.055535***	1.05277***	1.057183***
	(.0424428)	(.0420094)	(.0420461)	(.042024)
inchigh	-.395477***	-.3965642***	-.3972275***	-.40092***
	(.046778)	(.0468117)	(.0468103)	(.0468035)
m_activity	.0309367***	.0329418***	-.049761***	.0740427***
	(.0059605)	(.0054982)	(.0068887)	(.0105609)
_cons	-5.676852***	-5.702686***	-5.587088***	-5.690477***
	(.10965)	(.1100138)	(.1098393)	(.1099145)
Note: Standard errors are in parentheses. *** = p<.01, ** = p<.05, * = p<.1				