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# Time in the ‘Great Recession’

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The Impact of the 2008/2009 Economic Recession and Unemployment  
on Time Spent in Health Behaviors

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**ABSTRACT**

An economic recession has gripped the global economy since December of 2007 causing firm failures, growing unemployment, and general experiences of insecurity across the United States and the broader global economy. Prior research has shown that economic uncertainty and unemployment impact health and health outcomes, however it is unclear how this relationship works. In this study I examine the impacts of both the overall economic insecurity accompanying the 2008-2009 recession and actual job loss on time spent in healthy behavior (e.g. sleep, exercise and medical care) by drawing on the American Time Use Survey (ATUS) and the information in the Current Population Survey (CPS) that can be linked to it.

**INTRODUCTION**

An economic recession has gripped the global economy since December of 2007 (National Bureau of Economic Research 2008) causing firm failures, growing unemployment, and general experiences of insecurity across the United States and the broader global economy. Though there is some evidence that the economy may be improving, unemployment continues to be higher than the U.S. Bureau of Labor Statistics calculations from the last 25 years (9.3% in 2009 (Cook 2010) 9.6% in August of 2010 (U.S. Bureau of Labor Statistics 2010)) and as Americans continue to grapple with the challenges of the economic downturn, many are adapting as best as possible to the continued economic uncertainties.

Though the media often focuses on the financial implications of unemployment for individuals and families, prior research has demonstrated the long reach of economic uncertainty for other aspects of individuals' lives including health (e.g. Burgess 1945; Cavan 1959; Fagin and Little 1984; Jahoda, Lazarsfeld, and Zeisel 1971; Ström 2003; Strully 2009). The impact of the recession and unemployment for health is particularly salient in the United States for many reasons including rising health care costs and growing concerns about the obesity epidemic. However, the possible effects of the recession, on individuals' health are only vaguely understood and, it is not clear how these relationships work. Recognizing the importance of the national economic environment for health, I examine healthy behaviors (including sleep, exercise, and medical care) and the impacts of both the overall economic insecurity accompanying the 2008-2009 recession (at two points in time, both before and during the recession) and actual job loss on daily time use in the following analysis. Specifically, I will examine the effects of an insecure economic climate and actual unemployment on time spent engaging in healthy behaviors by drawing on the American Time Use Survey (ATUS) and information linked to it from the Current Population Survey (CPS).

**WHAT IS KNOWN TO DATE: LITERATURE REVIEW**

The proposed study is grounded in the life course perspective, viewing individuals as embedded in time and space (Elder, Johnson, and Crosnoe 2003), strategizing in light of the larger economic context as well as in light of their own resources and constraints, including employment status (Moen and Wethington 1992). For example, dual income families with young children may have greater resources to draw upon than would a family with a more traditional division of labor (male breadwinner) in the event of unemployment while both types of families would be influenced by the larger economic context when seeking outside support (monetary or otherwise) and future employment. As prior research has shown, how individuals respond to their economic situation has implications for health. This is most evident in Elder's (1974) study of the Great Depression, where he examined the impact of economic instability on family and generational change. Elder's (1974) work is a prime example of the importance of integrating the life course perspective for understanding social events like job loss and economic recessions and their effects in light of the historical context, linked lives between individuals, and agency as

made possible by opportunities and constraints (Elder et al. 2003). In addition to the impacts of unemployment for families strategies, job insecurity by one or both wage earners in a family also influences how families manage demands and resources by shifting priorities and time allocations as they adapt to and manage the stress of financial uncertainty that comes with insecure employment (Moen, Sweet, and Hill 2010).

Feelings of insecurity either from unemployment or job insecurity have important implications for time use choices by creating the opportunity for men and women to reprioritize time use choices for healthy behavior. Yet, individuals and families do not respond to economic uncertainty uniformly. Instead, individuals' responses to such changes and strains are influenced by their available resources and constraints, which are captured to some extent by their life stage and social class.

#### *The Costs of Unemployment and Economic Uncertainty for Time Use Behaviors*

Although a great deal of research from the 1930s to present day has examined and documented the psychological, physical, and economic costs of unemployment (e.g. Burgess 1945; Cavan 1959; Fagin and Little 1984; Ström 2003; Strully 2009), few have considered the implications of job loss or economic uncertainty on time-use patterns including healthy behaviors or done so in the current economic environment. Jahoda and colleagues' (1971) study of unemployment in 1930s Austria does draw on time diary data in their analysis of economic deprivation in a single community. By examining simple time diaries, the authors found that unemployed men were particularly impacted by the absence of the structure of time that their jobs had provided, as they lost the form of their workdays and their sense of purpose. Similarly, a longitudinal study of unemployment in English families in the 1970s by Fagin and Little (1984) also collected time diary data from participants. The researchers found significant physical and mental health effects for the entire family when the male breadwinner was unemployed but did not systematically examine the time diary data, making it unclear what effect unemployment had on time use patterns. However, the broader health findings support the argument that the stress of unemployment has important implications for health, likely through choices that can be captured in time diary data.

One mechanism that has been identified in the link between economic strain and negative health outcomes is stress (Pearlin et al. 1981). Pearlin and colleagues (1981) develop a conceptualization of the stress process that includes the linkages between life events, chronic life strains, self-concept, coping, and social supports by examining experiences of negative job transitions. Building on Pearlin and colleagues (1981) theory of stress and Jahoda and colleagues (1971) research on unemployment and time structures, I argue that the economic recession and job loss result in stress which translates into negative outcomes for time spent in healthy behaviors, such as reduced time spent exercising, more or less than the recommended 7 to 8 hours of sleep and reduced time spent attending to medical needs. During the economic recession, individuals experience stress due to the uncertainty of the surrounding economic conditions and as individuals manage the stress of the economic climate, I expect that they will experience health declines. Expanding on Pearlin and colleagues findings (1981), I hypothesize that these health declines result from different time use patterns as increases in stress lead to negative healthy behaviors due to feelings of strain and/or feeling overwhelmed. These healthy behaviors will be captured in the time use data as healthy activities. I should note that though I am unable to measure individual levels of stress, instead, the economic recession serves as a proxy for a climate of uncertainty at the population level caused by the economic recession.

The expected relationship between health behaviors and unemployment may appear less intuitive. Despite increases in time availability to spend time in healthy behaviors, I expect the unemployed to engage in negative health behaviors in comparison to the employed. Such expectations fit with the prior work of Pearlin and colleagues' findings (1981) as well as Jahoda and colleagues (1971) and can be thought of as being a response to stress and uncertainty of unemployment. As Jahoda and colleagues (1971) show, individuals may lose their sense of purpose or feel 'lost' without the time structures of work to help them plan and orient their daily activities. Based on this, I hypothesize:

H1: During the economic recession of 2008/2009, respondents will spend less time exercising, more or less than the recommended 7 to 8 hours of sleep and less time spent attending to medical needs than respondents in the 2005-2007 waves.

H2: Respondents that lose their job will spend less time exercising, more or less than the recommended 7 to 8 hours of sleep and less time spent attending to medical needs than respondents that remain employed.

## DATA AND METHODS

By drawing on data from the ATUS (Bureau of Labor Statistics 2010), I analyze the temporal effects of the insecurity characterizing the current economic situation, as well as the effects of actual job loss on individuals' time engaging in healthy behaviors (like exercise, sleep and medical care). The ATUS uses time diary methods to collect data for respondents regarding their daily activities from 4:00 AM the morning prior to the survey day until 3:59 AM of the survey day. Respondents are asked what activity they engaged in, how long they spent doing this activity, who they were with, and if they provided secondary childcare during this activity. The ATUS began in 2003 and has been conducted continuously since to capture the variation in time use across seasons and holidays. The data used in the proposed analyses will be drawn from the 2005 to 2009 ATUS waves administered by the U.S. Census Bureau and made available by the Minnesota Population Center (Abraham et al. 2008). The sample is limited to the ages of 23 to 55 in order to identify a subsample of individuals with similar levels of attachment to the labor force. Those under the age of 23 have been excluded because of the unique time use patterns of college students while those over the age of 55 have a greater likelihood of retirement or semi-retirement which would result in unique time use patterns.

Dependent variables include totals of time spent in healthy behaviors including exercise, sleep and healthcare activities (e.g. appointments with medical professionals). One of the main explanatory variables of interest, job loss, is captured from the longitudinal nature of the CPS and ATUS datasets. The CPS is the sampling frame for potential ATUS respondents and as such, respondents' households have participated in eight waves of the CPS approximately four to six months before being invited to participate in the ATUS. Participants of the CPS are asked about their current employment (or unemployment). Upon entry into the ATUS, respondents are asked if their employment situation has changed since their prior CPS participation. These data allow me to identify respondents that are unemployed in comparison to those that have been continuously employed by the same (or different) employer, those that have been continuously unemployed and those that are not in the labor force (1=recently unemployed, 2=current employed, 3=unemployed at both time points, 4=out of the labor force at ATUS). The other explanatory variable of interest, the climate of insecurity characterizing the economic recession, is captured by comparing respondents in the ATUS prior to the economic downturn (2005 to

2007) with respondents in the ATUS following the economic downturn (2008 and 2009) and is coded as a dichotomous variable (1=2008-2009, 0=2005-2007).

The method of analysis that I use to examine the impact of job loss and the recession on time spent in healthy behaviors is a multi-step process that attempts to account for the censoring of the data (due to the large number of people who do not engage in an activity on the diary day). To accomplish this, first, I construct a dichotomous dependent variable for time spent in healthy behaviors. I then run two logistic regressions and include employment characteristics and general demographic characteristics. I also add the independent variable of interest to capture unemployment or the recession to predict the likelihood of engaging in the activity at any point during the dairy day. After examining the impact of job loss or the recession on time spent in healthy behaviors, I include gender, life stage characteristics and measures of socioeconomic status in the model to examine how these relationships vary by demographic characteristics. The propensity (or the likelihood of engaging in the activity) is then calculated and incorporated into an OLS regression model predicting the amount of time spent engaging in these activities following a similar pattern of stepwise regression (starting first with employment characteristics, demographic characteristics, and the independent variable of interest followed by gender, life stage, and socioeconomic status). Both steps in the analysis are interpreted separately but in light of the other findings. This approach both helps me understand those that engage in any health activities during the day while also examining variation in the amount of time spent in a these activities.

## **CONCLUSION**

Though there is a general buzz in the media that the recession is coming to a close as many indicators of economic growth and development rebound, unemployment continues to be higher than in previous decades. Scholars, politicians, and media correspondents continue to discuss why this recession was different and what the potential long-term consequences of the policies and culture that led to it in the first place might be. The importance of the “great recession” and its impact on the health outcomes of individuals are great in light of these issues and the public health concerns regarding health care costs and the obesity epidemic and demonstrate the importance of examining how unemployment and economic insecurity affect health care outcomes.

## REFERENCES

- Abraham, Katharine G., Sarah M. Flood, Matthew Sobek, and Betsy Thorn. 2008. *American Time Use Survey Data Extract System: Version 1.0 [Machine-readable database]*. Maryland Population Research Center, University of Maryland, College Park, Maryland, and Minnesota Population Center, University of Minnesota, Minneapolis, Minnesota.
- Bureau of Labor Statistics. 2010. "American Time Use Survey."
- Burgess, Ernest W. 1945. "Unemployment and the Family." *Marriage and Family Living* 7:87-95.
- Cavan, Ruth Shonle. 1959. "Unemployment. Crisis of the Common Man." *Marriage and Family Living* 21:139-146.
- Cook, Khary J. 2010. *Employment & Earnings*. Washington, DC: U.S. Department of Labor <http://www.bls.gov/opub/ee/empearn201003.pdf>.
- Elder, Glen H. 1974. *Children of the Great Depression: Social Change in Life Experience*. Chicago: The University of Chicago Press.
- Elder, Glen H., Monica Kirkpatrick Johnson, and Robert Crosnoe. 2003. "The Emergence and Development of Life Course Theory." Pp. 3-19 in *Handbook of the Life Course*. New York: Kluwer Academic/Plenum Publishers.
- Fagin, Leonard, and Martin Little. 1984. *The Forsaken Families: The Effects of Unemployment on Family Life*. Harmondsworth, Middlesex, England: Penguin.
- Jahoda, Marie, Paul Felix Lazarsfeld, and Hans Zeisel. 1971. *Marienthal: The Sociography of an Unemployed Community*. Chicago: Atherton.
- Moen, Phyllis, Stephen A. Sweet, and Rachelle Hill. 2010. "Risk, Resilience, and Life Course Fit: Older Couples' Encores Following Job Loss." Pp. 283-309 in *Resilient Aging*. New York: Cambridge University Press.
- Moen, Phyllis, and Elaine Wethington. 1992. "The Concept of Family Adaptive Strategies." *Annual Review of Sociology* 18:233-251.
- National Bureau of Economic Research. 2008. "Determination of the December 2007 Peak in Economic Activity." 2009.
- Pearlin, Leonard I., Elizabeth G. Menaghan, Morton A. Lieberman, and Joseph T. Mullan. 1981. "The Stress Process." *Journal of Health and Social Behavior* 22:337-356.
- Ström, Sara. 2003. "Unemployment and Families: A Review of Research." *Social Service Review* 77:399-430.
- Strully, Kate W. 2009. "Job Loss and Health in the U.S. Labor Market." *Demography* 46:221-246.
- U.S. Bureau of Labor Statistics. 2010. "Employment Status of the Civilian Noninstitutional Population 16 years and over, 1970 to Date." <ftp://ftp.bls.gov/pub/suppl/empsit.cpseea1.txt> (Accessed September 8, 2010).