



Time in the 'Great Recession': The Impact of the 2008/2009 Economic Recession and Unemployment on Time Spent in Healthy Behaviors

Rachelle Hill

Minnesota Population Center & Department of Sociology, University of Minnesota

INTRODUCTION

An economic recession gripped the global economy from December of 2007 until June of 2009 (National Bureau of Economic Research 2010) causing firm failures, growing unemployment, and general experiences of insecurity across the United States and the broader global economy. Unemployment was particularly problematic during this time. The highest monthly unemployment rate for the United States during the recession reached 9.5% in June of 2009 (Goings 2009) but continued to be high through the end of 2010 (9.4% in December of 2010 (U.S. Bureau of Labor Statistics 2011)).

Though the media often focuses on the financial implications of unemployment and recessions for individuals and families, prior research has demonstrated the long reach of economic uncertainty for other aspects of individuals' lives including health (e.g. Fagin and Little 1984; Jahoda, Lazarsfeld, and Zeisel 1971). 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 unclear how these relationships work. Recognizing the importance of the national economic environment for health, I examine following questions by drawing on the American Time Use Survey (ATUS):

What are the effects of living in recessionary times (2008 through 2009), experiencing unemployment, and their combined effects on time spent exercising or engaging in active travel on an average day?

Does gender, life stage, and socioeconomic status moderate the relationships between a recessionary climate, unemployment, and time spent in healthy behaviors?

DATA & METHODS

Data: American Time Use Survey (ATUS)

- Disseminated by the Minnesota Population Center in conjunction with the Maryland Population Research Center (Abraham et al 2010)
- CPS is sampling frame for ATUS
- Completed participation in CPS 4 to 6 months prior to being invited to participate in ATUS
- Yesterday diary beginning at 3:59 A.M. of the diary day until 4:00 A.M. of the following day
- Analysis includes 2003 – 2009 data
- Sample limited to working-aged respondents (ages 23 – 55)

Measures

- Exercise
 - Total time – Summation of the duration of each exercise episode
 - Exercise includes activities like running, yoga, or playing sports.
- Active Travel
 - Total time – Summation of the duration of each active travel episode
 - Active travel episodes do not overlap with exercise episodes
- Economic Climate
 - Divided into three time periods based on NBER's announcement of the beginning and end of the recession
 - Before (2003 – 2008)
 - During (2008 – June of 2009)
 - After (July 2009 – December of 2009)
- Employment Status
 - Employed
 - Recently Unemployed (Employed at CPS and Unemployed at ATUS)
 - Long-term Unemployment (Unemployed at both CPS and ATUS)
 - Out of the Labor Force
- Additional Variables of Interest
 - Gender, Life Stage, Education, and Partner/Partner's Employment Status
 - Controlling for Season, Region, Metropolitan status, Race, and Immigrant Status in multivariate analyses

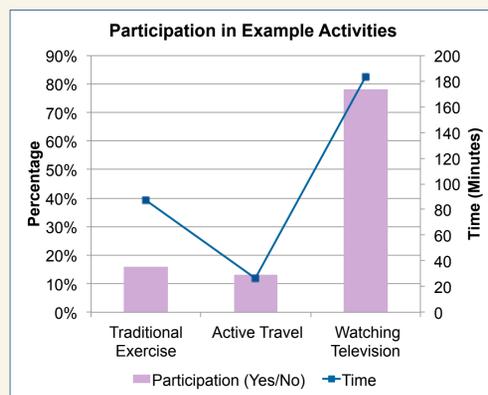
Methods

- Descriptive Analysis
- OLS Regression predicting the amount of time spent exercising or engaging in active travel
- Weights are applied in regression models to account for nonresponse and oversampling

PREVALENCE OF PHYSICAL ACTIVITY

Physical activity is uncommon

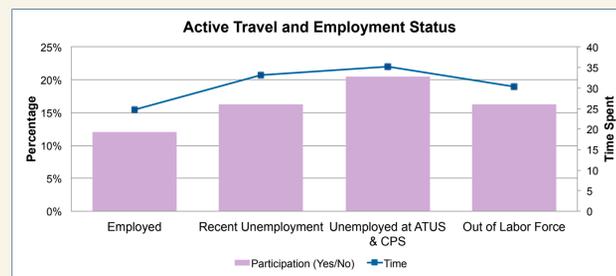
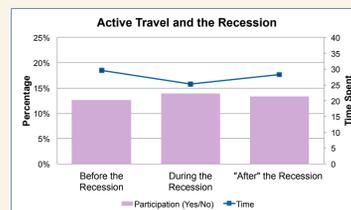
- 16.5% of Americans between the ages of 23 and 55 reported engaging in exercise.
- 13% reported participating in active travel.
- 78.2% reported watching television during the diary day.
- Those who report exercising, do so for 1 hour and 36 minutes on average.
- Those who report active travel, do so for 26 minutes on average during the diary day.
- Television consumes on average 3 hours and 3 minutes per diary day.



BIVARIATE RESULTS

Economic climate and employment status significantly predicts active travel but not exercise

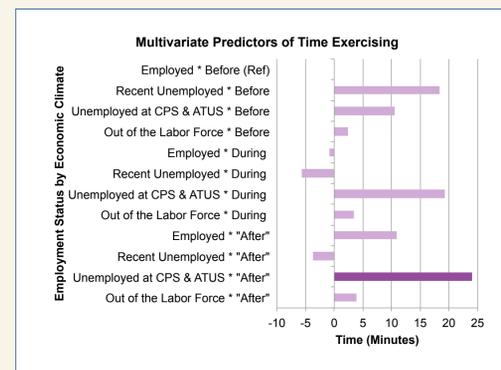
- Percentage of working-aged respondents participating in exercise was not statistically significantly ($\alpha < .05$) related to employment status or economic climate.
- Time spent exercising was not statistically significantly ($\alpha < .05$) related to employment status or economic climate.
- Percentage of working-aged respondents participating in active travel is statistically significantly different ($\alpha < .05$) by employment status and by economic climate.
- Time spent in active travel is statistically significantly different ($\alpha < .05$) by employment status and economic climate.
- Percentage participating in exercise and active travel as well as time spent in these activities are statistically significantly different by gender, life stage, education and partner/partner's employment status.
- Statistically significant relationships are illustrated below.



MULTIVARIATE RESULTS

Time Spent Exercising

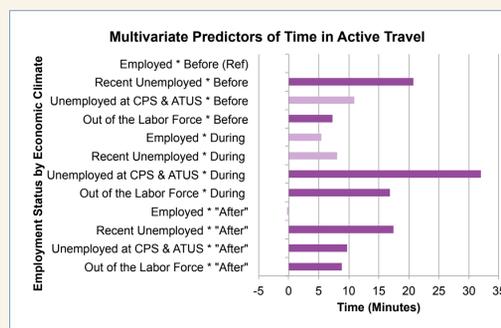
- Few of the interactions between employment status and economic climate are statistically significant.
- Working-aged respondents who are unemployed at the CPS and the ATUS are statistically significantly different in their time spent exercising and spend, on average, 24 minutes more than the employed before the recession in exercise.



Note: Statistically significant values are noted by the darker color

Time Spent in Active Travel

- Before the recession the recently unemployed and those out of the labor force spent more time in active travel on average than did the employed during this time (20 minutes and 11 minutes respectively).
- During the recession those unemployed at the CPS and the ATUS spent on average 32 minutes and those out of the labor force spent 17 minutes in active travel in comparison to the employed prior to the recession.
- "After" the recession, the unemployed and those out of the labor force spent more time in active travel on average than did the employed before the recession.
- The employed did not spend statistically significantly different amounts of time in active travel by the economic climate and spent the least amount of time in active travel in comparison to the unemployed or not in the labor force.



Note: Statistically significant values are noted by the darker color

The Moderating Influence of Social Location

- Gender
 - Men engage in exercise for a longer duration than women.
 - Regardless of gender, the unemployed at CPS & ATUS as well as those not in the labor force spent more time in exercise than the employed before the recession.
 - Men who are out the labor force and those who are unemployed at CPS and ATUS before the recession spend more time in active travel while men who are recently unemployed after the recession spend less time.
 - Employed women during the recession spend more time in active travel than the employed before the recession and out of the labor force women spend more time in active travel before and during the recession.
- Life Stage
 - Life stage does not moderate time spent exercising by the recession and employment status to any notable degree.
 - Parents who are out of the labor force spend more time in active travel while recent unemployed parents after the recession spend less time in active travel.
- Education
 - Lower education is related to more time in active travel.
 - Higher education is related to more time exercising.
- Partner/Partner's Employment Status
 - Respondents who are married/partnered to a full-time employed worker spend more time in active travel if they are out of the labor force regardless of the time period when compared to the employed before the recession.
 - Respondents who are recently unemployed and who have a spouse that is not in the labor force spend less time in active travel during or after the recession in comparison to the employed before the recession.

CONCLUSIONS

- Traditional exercise is rare regardless of the economic climate or an individuals employment status.
- Active travel is also rare but people's participation varies by economic climate and employment status.
- Time spent in exercise is only statistically significantly related to long-term unemployment "after" the recession.
- Time spent in active travel is greater for most groups and time periods when compared to the employed before the recession with the employed looking similar across time periods.
- Social location, as identified by gender, life stage, education, and partner/partner's employment status, moderates the relationships between employment status, economic climates and physical activity.

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