# Social Disengagement and Military Enlistment: A Discrete-Time Event History Analysis Using the NLSY97

Lucky Tedrow
Department of Sociology MS9081
Western Washington University
Bellingham, WA 98225

I thank Jay Teachman for his helpful advice and assistance on the modeling. This material is based upon work by Teachman and Tedrow (Co-PI) supported by the National Institutes of Child Health and Human Development under grant #1 R15 HD069958. Any opinions, findings, and conclusions expressed in this material are those of the author and do not necessarily reflect the views of NICHD.

Abstract

Previous research suggests that being in the military leads veterans to engage in violent behavior. This research usually compares veterans to non-veterans, ignoring the possibility that people engaging in the troubled or violent behaviors may be more likely to enlist. The analysis presented in this paper improves upon previous research by employing a cumulative number of household moves experienced by the respondent, a comprehensive delinquency index and an index of substance use to assess the effect of social disengagement on enlistment for both males and females using the data available from the 1997 National Longitudinal Survey of Youth. Another improvement over previous research is the use of a discrete time event history model of the time to enlistment that enables inclusion of numerous time-varying variables. Both the delinquency index and the cumulative number of moves are significantly related to military enlistment. The substance use index was not significantly related to enlistment.

## INTRODUCTION

Over the last 70 years, at least one and a half million military personnel have been on active duty in each year, affecting 10 to 70 percent of relevant birth cohorts. Currently, about 200,000 young men and women enter the military (active duty and reserves) each year. Indeed, an often-ignored fact is that the military is the single largest employer of young men in the United States (Angrist, 1998), with about 10-12% of recent cohorts of young men serving a term in the military. Military recruitment is an often hotly debated topic of public policy centering on issues such as access, equality of representation by race, and transferability of training to the civilian labor market (Armor, 1996). In Congress, veterans' rights and benefits are significant budgetary items, and veterans' organizations constitute powerful political action groups. Moreover, there is growing evidence that military service is linked to a number of subsequent life course outcomes, including income, marital status, and health (Angrist, 1990, 1998; MacLean and Elder, 2008; Segal and Segal, 2004; Teachman, 2007; Teachman, 2010; Teachman and Tedrow, 2007; Whyman, Lemmon, and Teachman, 2011). Yet, our understanding of the factors that lead young men and women to choose military service in the all-volunteer era remains skeletal.

Finally, military service is not a one-time decision; it is a decision that is assessed and reassessed across the young adult lifespan. Jobs, schooling, and military service are not mutually exclusive events in the life course of young persons. Rather, individuals choose from among these options in various sequences that may vary as they age. The important point to note here is that individuals do not make a static choice between jobs, schooling, and military service as mutually exclusive statuses as much of the prior research implies. While it is true that young men and women may choose one of these statuses to try first, choosing one status initially does not eliminate the possibility that another status will be chosen later in the life course. Rather than eliminating the likelihood of choosing a different status, choosing one status at a particular point in the life course likely alters, either negatively or positively, the

possibility that a different status will be chosen later.[1] For example, post-secondary schooling may reduce the likelihood of military enlistment, while not eliminating the possibility.

In particular, prior literature dealing with enlistment in the military has focused primarily on economic factors wherein men (and increasingly women) choose the military as a means to maximize their economic well-being (Asch, Kilburn, and Klerman, 1999; Dale and Gilroy, 1984; Kilburn and Asch, 2003; Kilburn and Klerman, 1999; Kleykamp, 2006; Seeborg, 1994). Although this model has received empirical support, it fails to recognize the many possible non-economic factors that may spur enlistment. For example, other research has suggested that factors such as patriotism, propinquity to military installations, family history, and desire for travel and adventure are related to the decision to join the military (Eighmey, 2006; Elder et al., 2010; Kleykamp, 2006). Indeed, some authors claim that men and women who enlist in the military do not come from disadvantaged backgrounds and make enlistment decisions based largely on non-economic factors (Kane, 2006; Watkins and Sherk, 2008). In this article, we expand the literature on social determinants by investigating the relationship between social disengagement and the likelihood of military enlistment.

## PRIOR LITERATURE

There are only a handful of studies that have investigated the notion that social disengagement is related to military enlistment. Using data taken from the Houston Independent School System between 1971 and 1988, Johnson and Kaplan find that young men who have an early history of antisocial behavior (an arrest or some other evidence of having trouble with authority) and more frequent parental moves are more likely to enlist in the military. Using more representative data taken from the National Longitudinal Study of Adolescent Health, Elder et al. (2010) find that young men with less perceived social support and a history of physical aggression are more likely to enter the military.

## DATA

We use data taken from the 1997 National Longitudinal Survey of Youth (NLSY-97). Starting in 1997, the NLSY-97 interviewed 8,984 men and women between the ages of 14-16 who were born between 1980 and 1984. The young men and women in our sample were eligible to be observed up to 12 times over the period 1998 to 2009. In our analysis, we only consider only men and women age 17 and older and thus eligible to enter the military. A database consisting of person years was created where respondents contribute a person year for each round of the NLSY-97 in which they were interviewed and were eligible to enlist. Respondents contribute person years until they enter the military, are lost to follow-up, or they reach the last wave of the study (2009). Thus, the final sample includes information on men and women between the ages of 17 and 28 who were eligible to enter the military between 1998 (the year the oldest NLSY-97 respondents turned 17) and 2009. The pooled sample includes 34,417 person years for men (4599 unique men) and 31,380 person years for women (4385 unique women). Approximately 7% of men (342 enlistees) enlisted in the military over the time period covered by our study. Only about 2% of women enlisted in the military (95 enlistees) and caution should be taken in interpreting results due to this relatively small sample size.

## METHOD AND MEASURES

We use a logistic-regression model to analyze the relationship between military enlistment and a series of measured covariates. In essence, we conduct a discrete-time event history analysis where the event in question is enlistment. Thus, we are not modeling the likelihood of ever entering the military but rather the likelihood of entering the military during a given interval of time (here that interval is a year). Because we examine a pooled data base consisting of yearly observations, we can allow covariates that change values of the life course of respondents (e.g., income, marital status).

*Measures of Military Enlistment and Social Disengagement*

Our dependent variable is the log of the odds (or sometimes the odds) of enlisting in the military. We use three indicators of social disengagement. The first measure has been used in prior research and constitutes a time-varying indicator of the cumulative number of household moves experienced by the respondent. The notion is that individuals who experience more moves are less integrated into their surrounding environment (Kan, 2007; Magdol and Bessel, 2003; Sampson and Groves, 1989) and thus less likely to be involved in social relationships that offer alternatives to military service. Individuals who have experienced more household moves may also be more willing to serve in the military where frequent moves are the norm.

The second measure is a time-varying Substance Use Index that taps use of cigarettes, alcohol, and marijuana. The question wording for the index formation is found below. This index ranges from 0 to 3 with a higher score indicating more substance use.

*1. Have you ever smoked a cigarette?*

*2. Have you ever had a drink of an alcoholic beverage? (By a drink we mean a can or bottle of beer, a glass of wine, a mixed drink, or a shot of liquor. Do not include childhood sips that you might have had from an older person's drink.)*

*3. Have you ever used marijuana, for example: grass or pot, in your lifetime?*

Consistent with prior research, we suggest that individuals with higher levels of substance use are subject to greater levels of social disengagement (Dishion, Nelson, and Bullock, 2004; Henry, Thornberry, and Huizinga, 2009; Johnson and Kaplan, 1991). Moore et al. (1999) report that the substance use index measured in the NLSY-97 is positively related to both measures of youth delinquency and reports of behavioral and emotional problems in children by their parents.

Our third measure of social disengagement consists of a time-varying, cumulative Delinquency Index that ranges from zero to ten, with higher scores indicating a greater degree of delinquency. The

score was constructed by adding the responses from the number of delinquent/criminal acts that respondents identified as having ever done. A change in a respondent's score indicates that in a particular year a respondent engaged in a delinquent behavior that was not listed in earlier intervals. A value of 0 indicates that the respondent has not yet engaged in any of the activities listed. A value of 10 indicates that the respondent has engaged in each of the ten items listed at least once. Weighted scores were assigned to respondents who answered at least eight or more of the ten delinquency questions listed below.[2] Note that the index is based on self-reports and does not necessarily reflect official records of delinquent behavior for an individual.

The questions forming the Delinquency Index (0=No, 1=Yes response for each) are as follows:

*1. Have you ever run away, that is, left home and stayed away at least overnight without your parent's prior knowledge or permission?*

*2. Have you ever carried a hand gun? When we say hand gun, we mean any firearm other than a rifle or shotgun.*

*3. Have you ever belonged to a gang?*

*4. Have you ever purposely damaged or destroyed property that did not belong to you?*

*5. Have you ever stolen something from a store or something that did not belong to you worth less than 50 dollars?*

*6. Have you ever stolen something from a store, person or house, or something that did not belong to you worth 50 dollars or more including stealing a car?*

*7. Have you ever committed other property crimes such as fencing, receiving, possessing or selling stolen property, or cheated someone by selling them something that was worthless or worth much less than what you said it was?*

[2] That is, respondents who answered at least eight of the ten questions were given a score that was adjusted to a base of ten. For example, if a respondent answered positively to four of eight questions they were assigned a value of 5 for the scale (4/8 * 10). Respondents who answered fewer than eight items were assigned a missing value for the scale and received an imputed value using the chained equations approach described above.

*8. Have you ever attacked someone with the idea of seriously hurting them or have a situation end up in a serious fight or assault of some kind?*

*9. Have you ever sold or helped sell marijuana (pot, grass), hashish (hash) or other hard drugs such as heroin, cocaine or LSD?*

*10. Have you ever been arrested by the police or taken into custody for an illegal or delinquent offense (do not include arrests for minor traffic violations)?*

The Delinquency Index has been used by other researchers to describe the patterns of delinquency across the life course of adolescents (Bolken et al., 2010; Hair et al., 2009; Holmes, Jones-Sanpei and Day, 2009; Vander Ven et al., 2001) and appears to have considerable construct validity. Delinquency has long been considered to be strongly related to social disengagement (Cullen, 1994 Hagan, 1993; Sampson and Groves, 1989; Shihadeh, 1996). Individuals with higher scores on the Delinquency Index are less likely to be involved in social networks that would provide them with schooling and work alternatives that would detract from serving in the military. They may also see the military as an environment that will provide a degree of control over their behavior (Eighmey, 2006).

*Control Measures*

We include a number of control variables to reduce the likelihood that any observed relationship between social disengagement and military enlistment may be due to spuriousness. Previous research has linked each of these variables to either military enlistment, social disengagement, or both. These variables are designed to limit the influences of either self-selection into the military (e.g., according to income or marital status) or selectivity imposed by the military via recruitment standards (e.g., according to cognitive ability or health). The control variables we include are race measured as a series of dummy variables; urban residence (time varying); residence in the south (time varying); age and age squared (time varying); highest level of parental education (higher of either mother or father); whether the respondent lived with both parents at age 12; whether the interval in question was situated in time

prior to 9/11; number of household members and its square (time varying); a series of dummy variables corresponding to the military's categorization of the Armed Services Vocational Aptitude Battery, which was administered to all NLSY-97 respondents in 1997; a series of dummy variables measuring household income relative to the poverty level (time varying); whether the respondent was married (time varying); body mass index (time varying); a series of dummy variables indicating the number of resident and non-resident children the respondent has (time varying); a series of dummy variables indicating the highest level of education obtained by the respondent (time varying); a set of dummy variables indicating the self-reported health of the respondent (time-varying); number of weeks worked in the prior year (time-varying); and a dummy variable indicating whether the responded was enrolled in school in the interval (time-varying). The descriptive statistics provide additional information pertaining to the categorization of particular variables.

References

Angrist, Joshua. 1990. "Lifetime Earnings and the Vietnam Era Draft Lottery: Evidence from Social Security Administrative Records." *American Economic Review* 80:313-336.

Angrist, Joshua. 1998. "Estimating the Labor Market Impact of Voluntary Military Service Using Social Security Data on Military Applicants." *Econometrica* 66:249-288.

Armor, David J. 1996. "Race and Gender in the U.S. Military." *Armed Forces and Society* 23:7-27.

Asch, Beth, Rebecca Kilburn, and Jacob Klerman. 1999. *Attracting College-bound Youth into the Military: Toward the Development of New Recruiting Policy Opt*ions. Santa Monica, CA: RAND.

Bachman, Jerald, David Segal, Peter Freedman-Doan, and Patrick O'Malley. 2000. "Who Chooses Military Service? Correlates of Propensity and Enlistment in the U.S. Armed Forces." *Military Psychology* 12:1-30.

Bolkan, Cory, Yoshie Sano, Jennifer De Costa, Alan Acock, and Randal Day. 2010. "Early Adolescents' Perceptions of Mothers' and Fathers' Parenting Styles and Problem Behavior." *Marriage and Family Review* 46:563-579.

Cullen, Francis. 1994. "Social Support as an Organizing Concept for Criminology: Presidential Address to the Academy of Criminal Justice Sciences." *Justice Quarterly* 11:527-559.

Eighmey, John. 2006. "Why Do Youth Enlist?: Identification of Underlying Themes." *Armed Forces and Society* 32:307-328.

Elder, Glen, Monica Johnson, and Robert Crosnoe. 2003. "The Emergence and Development of Life Course Theory." Pp. 3-22 in Jeylan Mortimer and Michael Shanahan (eds.), *Handbook of the Life Course*. New York: Springer.

Elder, Glen, Lin Wang, Naomi Spence, Daniel Adkins, and Tyson Brown. 2010. "Pathways to the All-voluntary Military." *Social Science Quarterly* 91:455-475.

Faris, John. 1984. "Economic and Noneconomic Factors of Personnel Recruitment and Retention in the AVF." *Armed Forces and Society* 10:251-275.

Dishion, Thomas, Sara Nelson, and Bernadette Bullock. 2004. "Premature Adolescent Autonomy: Parent Disengagement and Deviant Peer Process in the Amplification of Problem Behavior." *Journal of Adolescence* 27:515-530.

Hagan, John. 1993. "The Social Embeddedness of Crime and Unemployment." Criminology 31:465-491.

Hair, Elizabeth, Jane Park, Thomson Ling, and Kristin Moore. 2009. "Risky Behavior in Late Adolescence: Co-occurrence, Predictors, and Consequences." *Journal of Adolescent Health* 45:253-261.

Henry, Kimberly, Terence Thornberry, and David Huizinga. 2009. "A Discrete-Time Survival Analysis of the Relationship Between Truancy and the Onset of Marijuana Use." *Journal of Studies on Alcohol and Drugs*, 70:5-15.

Holmes, Erin, Hinckley Jones-Sanpei, and Randal Day. 2009. "Adolescent Outcome Measures in the NLSY97 Family Process Data Set: Variation by Race and Socioeconomic Conditions." *Marriage and Family Review* 45:374-391.

Hosnek, James and Christine Peterson. 1990. *Serving Her Country: An Analysis of Women's Enlistment*. Santa Monica, CA: RAND.

Johnson, Robert and Howard Kaplan. 1991. "Psychosocial Predictors of Enlistment in the All-voluntary Armed Forces." *Youth and Society* 22:291-317.

Kan, Kamhon. 2007. "Residential Mobility and Social Capital." *Journal of Urban Economics* 61:436-457.

Kane, Timothy. 2006. *Who are the Recruits? The Demographic Characteristics of U.S. Military Enlistment, 2003-2005*. Washington, DC: The Heritage Foundation.

Kilburn, Rebecca and Beth Asch. 2003. *Recruiting Youth in the College Market: Current Practices and Future Policy Options*. Santa Monica, CA: RAND.

Kilburn, Rebecca and Jacob Klerman. 1999. *Enlistment Decisions in the 1990s: Evidence from Individual-level Data*. Santa Monica, CA: RAND.

Kleykamp, Meredith. 2006. "College, Jobs, or the Military? Enlistment During a Time of War." *Social Science Quarterly* 87:272-290.

MacLean, Alair and Glen Elder. 2007. "Military Service in the Life Course." *Annual Review of Soci*ology 33:175-196.

Magdol, Lynn and Dianne Bessel. 2003. "Social Capital, Social Currency, and Portable Assets: The Impact of Residential Mobility on Exchanges of Social Support." *Personal Relationships* 10:149-169.

Moore, Kristin, Kerry Richter, Sharon McGroder, Carrie Mariner, Elizabeth Hair, Anne Driscoll, Marjorie Gunnoe, and Jennifer Sargent. 1999. "Appendix 9: Family Process and Adolescent Outcome Measures." NLSY97 Codebook Supplement Main File Round 1, http://www.nber.org/nlsy97/appendix9.pdf, retrieved January 22, 2013.

Royston, Patrick and Ian White. 2011. "Mulitple Imputation by Chained Equations (MICE): Implementation in Stata." *Journal of Statistical Software* 45, online at http://www.jstatsoft.org/.

Sampson, Robert and W. Byron Groves. 1989. "Community Structure and Crime: Testing Social Disorganization Theory." *American Journal of Sociology* 94:774-802.

Sampson, Robert, Stephen Raudenbush, and Felton Earls. 1997. "Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy." *Science*, 277:918-924.

Seeborg, Michael. 1994. "Race, Poverty, and Enlistment: Some Evidence from the National Longitudinal Survey of Youth." *Journal of Economics* 20:15-24.

Segal, David, Jerald Bachman, Peter Freedman-Doan, and Patrick O'Malley. 1999. "Propensity to Serve in the U.S. Military: Temporal Trends and Subgroup Differences." *Armed Forces and Society* 25:407-427.

Segal, David and Mady Segal. 2004. "America's Military Population." Population Reference Bureau, Population Bulletin, number 94.

Shihadeh, Eric. 1996. "Segregation and Crime: The Effect of Black Social Isolation and the Rates of Black Urban Violence." *Social Forces* 74:1325-1352.

Stets, Jan. 1991. "Cohabiting and Marital Aggression: The Role of Social Isolation." *Journal of Marriage and the Family* 53:669-680.

Teachman, Jay. 2007a. "Military Service and Educational Attainment in the All-volunteer Era." *Sociology of Education* 80:359-374.

Teachman, Jay. 2007b. **"**Race, Military Service, and Marital Timing: Evidence from the NLSY-79." *Demography* 44:389-404.

Teachman, Jay. 2008. "Divorce, Race, and Military Service: More than Equal Pay and Equal Opportunity." *Journal of Marriage and Family 70:1030–1044.*

Teachman, Jay. 2010c. "Are Veterans Healthier? Military Service and Health at Age 40 in the All-volunteer Era." *Social Science Research* 40:326-335

Teachman, Jay, Vaughn Call, and Mady Segal. 1993. "The Selectivity of Military Enlistment." *Journal of Political and Military Sociology* 21:287-309.

Vander Ven, Thomas, Francis Cullen, Mark Carrozza, and John Wright. 2001. "Home Alone: The Impact of Maternal Employment on Delinquency." *Social Problems* 48:236-257.

Watkins, Shanea and James Sherk. 2008. *Who Serves in the U.S. Military? The Demographics of Enlisted Troops and Officers*. Washington, DC: The Heritage Foundation.

Whyman, Mira, Megan Lemmon, and Jay Teachman. 2011. "Non-combat Military Service in the United States and its Effects on Depressive Symptoms among Men." *Social Science Research* 40:695-703.

Table 1 Descriptive Statistics for Variables used to Examine the Link between Social Disengagement and Military Enlistment

| Variable | Mean or Proportion (se) | |
|---|---|---|
| | Men | Women |
| Enlist in the military | .009 (.0004) | .002 (.0002) |
| Substance use index: | | |
| No substance used (omitted) | .08 (.002) | .09 (.002) |
| One substance used | .17 (.003) | .21 (.003) |
| Two substances used | .24 (.003) | .26 (.004) |
| Three substances used | .51 (.004) | .44 (.005) |
| Delinquency index | 3.10 (.013) | 1.71 (.010) |
| Cumulative number of moves | 4.40 (.027) | 4.99 (.021) |
| | | |
| Race: | | |
| Black (omitted) | .26 (.004) | .27 (.004) |
| Hispanic | .21 (.004) | .21 (.004) |
| Mixed race | .01 (.002) | .01 (.002) |
| Non-black, non-Hispanic | .52 (.004) | .50 (.007) |
| Urban | .78 (.002) | .80 (.002) |
| South | .38 (.002) | .40 (.002) |
| Age in months | 267.87 (.197) | 269.43 (.195) |
| Highest level of parents' education | 13.10 (.026) | 13.00 (.019) |
| Lived with both parents at age 12 | .47 (.003) | .42 (.003) |
| Pre-9/11 | .29 (.002) | .28 (.002) |
| Number of household members | 3.55 (.009) | 3.65 (.009) |
| ASVAB | | |
| Category 1 | .23 (.002) | .21 (.002) |
| Category 2 | .19 (.002) | .20 (.002) |
| Category 3a | .10 (.001) | .12 (.002) |
| Category 3b (omitted) | .14 (.002) | .16 (.002) |
| Category 4a | .35 (.002) | .31 (.002) |
| Category 4b | .05 (.001) | .05 (.001) |
| Category 4c | .07 (.001) | .06 (.001) |
| Category 5 | .15 (.002) | .12 (.002) |
| Household income | | |
| HH income < poverty level | .22 (.002) | .26 (.002) |
| HH income >= poverty level to =< 3x poverty level | .19 (.002) | .19 (.002) |
| HH income > 3x poverty level | .59 (.002) | .55 (.002) |
| Married | .10 (.002) | .17 (.002) |
| Body Mass Index | | |
| BMI < 19 | .03 (.001) | .06 (.001) |
| 19 <= BMI < 25 (omitted) | .42 (.002) | .48 (.002) |
| 25 <= BMI < 30 | .31 (.002) | .21 (.002) |
| BMI >= 30 | .24 (002) | .25 (.002) |
| Number of resident children | | |
| No resident children | .88 (.002) | .66 (.002) |

| | | |
|---|---|---|
| One resident child (omitted) | .08 (.002) | .19 (.002) |
| Two resident children | .04 (.001) | .15 (.001) |
| Number of non-resident children | | |
| No non-resident children | .90 (.001) | .98 (.001) |
| One non-resident child (omitted) | .07 (.001) | .01 (.001) |
| Two non-resident children | .03 (.001) | .01 (.001) |
| Education: | | |
| Less than high school | .29 (.002) | .24 (.002) |
| High school degree or GED (omitted) | .35 (.002) | .26 (.002) |
| Some college | .35 (.002) | .42 (.002) |
| College or more | .06 (.001) | .08 (.001) |
| Self-reported health: | | |
| Excellent | .35 (.002) | .26 (.002) |
| Very good | .35 (.002) | .36 (.002) |
| Good (omitted) | .23 (.002) | .29 (.002) |
| Fair | .06 (.001) | .08 (.001) |
| Poor | .01 (.001) | .01 (.001) |
| Number of weeks worked | 34.66 (.097) | 33.81 (.097) |
| Enrolled in school | .34 (.002) | .38 (.002) |

Table 1 Logistic Regression Coefficients for a Discrete-Time Event History Model of the Time to Enlistment, NLSY-97

| Variable | Model 1 | | Model 2 | | Model 3 | |
|---|---|---|---|---|---|---|
| | Men | Women | Men | Women | Men | Women |
| Substance use index: | | | | | | |
| No substance used (omitted) | | | | | | |
| One substance used | -.065 | .254 | -.094 | .277 | .153 | .491 |
| Two substances used | -.022 | .267 | -.033 | .352 | .126 | .558 |
| Three substances used | -.306 | .525 | -.179 | .527 | .033 | .693 |
| Delinquency index | .248** | .282 | .243** | .276 | .201** | .325* |
| Delinquency index squared | -.022** | -.053* | -.021** | -.046 | -.026** | -.061** |
| Cumulative number of moves | .360** | .113 | .319** | .144 | .319** | .159* |
| Cumulative number of moves squared | -.024** | -.001 | -.019** | -.002 | -.021** | -.005 |
| | | | | | | |
| Race: | | | | | | |
| Black (omitted) | | | | | | |
| Hispanic | .500** | .163 | .414** | -.048 | .668** | -.160 |
| Mixed race | -.039 | -.097 | .056* | -.514 | .335 | -.626 |
| Non-black, non-Hispanic | .120 | -.717 | .041 | -.922** | .436** | -.739** |
| Urban | -.029 | -.432 | .014 | -.458* | -.073 | -.388 |
| South | .444** | .355 | .419** | .428* | .358** | .397* |
| Age in months | .253** | .276** | .068 | .165 | .089** | .189* |
| Age in months squared | -.001** | -.001** | -.001** | -.001** | -.001** | -.001** |
| Highest level of parents' education | .016 | -.003 | .014 | -.008 | .015 | .019 |
| Lived with both parents at age 12 | .135 | -.163 | .119 | .023 | .147 | .121 |
| Pre-9/11 | .494** | -.310 | .326** | -.477* | .411** | -.340 |
| Number of household members | -.550** | -.636** | -.402** | -.400** | -.399** | -.503** |
| Number of household members squared | .044** | .050** | .035** | .0352** | .030** | .041** |
| ASVAB category 1 | -.544** | -.629* | -.386* | -.533 | -.435** | -.827** |
| ASVAB category 2 | .007 | .263 | .065 | .234 | .160 | .258 |
| ASVAB category 3a | .385** | .021 | .359* | -.059 | .397* | -.036 |
| ASVAB category 3b (omitted) | | | | | | |
| ASVAB category 4a | .058 | -.833* | .081 | -.818 | -.042 | -1.104** |

| | | | | | | |
|---|---|---|---|---|---|---|
| ASVAB category 4b | -.617 | -.882 | -.558 | -.823 | -.0545 | -.555 |
| ASVAB category 4c | -1.036 | -.197 | -.858** | -.156 | -.821** | -.140 |
| ASVAB category 5 | -1.894 | -- | -1.63** | | -1.911** | |
| Household income < poverty level | | | .226 | .136 | -.021 | -.011 |
| H. Income > pov.level to <3x pov.level (omitted) | | | | | | |
| Household income > 3x poverty level | | | -.192 | -.072 | -1.84 | .078 |
| Married | | | 1.128** | -.102 | 1.564** | -.345 |
| BMI < 19 | | | -.736 | -1.487** | -.692 | -1.742** |
| 19 <= BMI < 25 (omitted) | | | | | | |
| 25 <= BMI < 30 | | | .251** | -.234 | .183 | -.311 |
| BMI >= 30 | | | -.989** | -3.000** | -1.021** | -3.209** |
| No resident children | | | .829** | 1.299** | .639* | 1.791** |
| One resident child (omitted) | | | | | | |
| Two resident children | | | .866** | | .835 | |
| No nonresident children | | | .131 | -.117 | .334 | .410 |
| One nonresident child (omitted) | | | | | | |
| Two nonresident children | | | -.070 | 1.457 | -.221 | 1.976 |
| Education: | | | | | | |
| Less than high school | | | -2.995** | -2.852** | -2.462** | -1.964** |
| High school degree or GED (omitted) | | | | | | |
| Some college | | | -1.099** | -1.460 | -.117 | -.178 |
| College or more | | | -.367 | -.106 | -.258 | .0168 |
| Self-reported health: | | | | | | |
| Excellent | | | 1.254** | .967** | 1.252** | 1.131** |
| Very good | | | .750** | .174 | .829** | .282 |
| Good (omitted) | | | | | | |
| Fair | | | -.018 | -.572 | -.072 | -.456 |
| Poor | | | 1.267 | 1.297 | .317 | 1.039 |
| Number of weeks worked | | | | | -.063** | -.066** |
| Enrolled in school | | | | | -2.363** | -2.438** |

* p < .10 ** p < .05