Older Workers Managing a Disability:

An Examination of Gender Differences[*]

Amy Mehraban Pienta

Inter-university Consortium for Political and Social Research

University of Michigan

Tyson H. Brown

Carolina Population Center and Department of Sociology

University of North Carolina at Chapel Hill

[*] Please direct all correspondence to Amy Mehraban Pienta, ICPSR, Institute for Social Research, University of Michigan, PO Box 1248, Ann Arbor, MI 48106-1248, email: apienta@umich.edu.

Older Workers Managing a Disability:

An Examination of Gender Differences

The goal of this paper is to examine the effects that disability has on work transitions of older workers with particular attention given to understanding gender differences. Using a life course approach, we hypothesize that work disability might affect labor force supply of men and women differently, such that disability has a greater impact on men's work than women's. Longitudinal data from the Health and Retirement Study (HRS), waves 1 (1992) and 2 (1994), are employed to investigate work transitions of disabled workers. Results from logistic and multinomial logistic models of work transitions reveal that disabled men experience the highest rates of labor force exit and lowest reentry rates. Whereas among women, disability has a much more limited effect on labor supply.

Older Workers Managing a Disability:

An Examination of Gender Differences

INTRODUCTION

Managing a work disability while on the job has become a common feature of the American workplace. In 1998, 17.2 million working-age men and women had a work disability of which nearly one third or 5.2 million were active in the labor force (Stoddard, Jans, Ripple, and Kraus 1998). Moreover, because older adults are more likely to encounter a disabling health condition than younger adults (Crimmins, Reynolds, and Saito 1999; LaPlante 1993), the impact of disability is particularly salient for older workers. The male model of the impact of work disability suggests that labor supply is severely curtailed at onset of a disabling health condition as evidenced by both high rates of labor force exit and by low rates of labor force reentry (Hayward 1989). However, we know less about the labor force behavior of women who are disabled (Loprest, Rupp, and Sandell 1995) who tend to have different health problems, occupational experiences, and attachments to work than men. The goal of this paper is to examine the labor force transitions of older workers with disabilities with particular attention given to understanding gender differences in labor force behavior. Our model examines several types of work transitions including complete labor force exit, reducing one's hours, changing employers, and labor force reentry.

Only recently has work disability become an important issue for women as both female labor force participation rates have increased and women have increased share of SSDI benefits (Loprest et. al 1995). The few studies that have compared women and men show that prevalence rates of work disability do not differ by gender (Daly and Bound 1996; Loprest et. al 1995).

2

Nonetheless, it is widely recognized that women and men experience different types of health problems and have substantially varying labor market experiences (Daly and Bound 1996). Loprest and her colleagues (1995) show using cross-sectional data that disability has a greater impact on men's labor force participation rates than women's labor force participation rates. We extend this line of inquiry by evaluating whether labor force exit, other employment transitions, and labor force reentry rates of disabled workers are gendered using prospective data from the Health and Retirement Survey.

BACKGROUND

One of the most salient themes defining the individual life course is the experience of work and establishing a career trajectory. Institutionalized work experiences generate meaning and help shape the identity of workers at all points during the working years. The life course perspective has been a central force organizing our understanding of how characteristics of career trajectories and accumulated work experiences have bearing on labor force decisions later in life (Hayward et al. 1998). One of the significant developments in life course research in the past fifteen years has been efforts to the incorporate the simultaneity of characteristics of work careers and concomitant family responsibilities in one model in order to extend our understanding of women's labor force changes and retirement behavior (Henretta, O'Rand, and Chan 1993b). Building on this approach, we extend the work disability model by exploring whether disability can be placed in the larger work and family contexts of women's and men's lives. Because women and men have such different life experiences in the domains of work and family, it is expected that these differences influence the consequences of work disability.

Gender, Work, and Family - Women tend to work in female dominated occupations (Wootton 1997), work part-time (Fuchs 1989), accrue less work tenure (Pienta, Mutchler, and Burr 1994), experience less job continuity over the life course (Pienta, Burr, and Mutchler 1994), and accrue less pension benefits (Hardy and Shuey 2000). Despite a modest decline (7 to 8 percent) in overall occupational segregation during the 1970s, around 60 percent of the female work force remained in female dominated occupations (Bianchi and Rytina 1986). Moreover, the occupational segregation of older women remains the highest indicating that younger women have benefited the most from inroads made into male dominated occupations (Wooton 1997). Thus, for older women workers managing a work disability, working in female dominated occupations throughout their lives will have been fairly typical. These types of occupations tend to be characterized by high employee turnover, less status and prestige, and lower pay. Importantly, male-type occupations tend to be more physically demanding than many female dominated occupations having direct consequences for the ability of male and female workers to accommodate a work limiting condition at work.

Also, part-time work may offer women greater flexibility to accommodate a work disabling condition such that part-time workers may have more opportunity to attend to family responsibilities, but also it might afford women greater ability to make and keep appointments with physicians and attend physical and rehabilitative therapies than full-time workers. Thus, it is possible that gender differences in hours worked might contribute to differential access to economic resources (Hutton 1994), health outcomes and labor force behavior.

Different employers might offer different levels or types of accommodations for disabilities. In general, work-related disability outcomes improve when companies have policies in place such as worker safety, safety trainings, and proactive return-to-work programs (Habeck,

4

Hunt, and VanTol 1998). With respect to gender differences employer accommodations, there is considerably little empirical evidence (note that Daly and Bound 1996 is an exception). Analyzing retrospective disability data from the Health and Retirement study, Daly and Bound (1996) found that 29.2 percent of men and 36.9 percent of women mentioned specific ways in which their employer had accommodated them. The most common types of accommodation for those who remained with their employer were: alteration in job duties, assistance with the job, a change in schedule or a shorter workday, and more breaks. Although, workers who changed employers after the onset of the health impairment were likely to experience a change in job demands, they were significantly less likely than workers who remained with their original employer to receive employer accommodations (men 14.1 percent, women 24.9 percent).

Taken together, we expect that women might experience greater labor force instability than men in general due to working in less structured work settings (part-time work), low status jobs with little room for advancement, and having more limited rewards structures that would tie them more closely to employment in later life. With respect to the effect disability has on labor force participation, women may be better able to accommodate a work disability in the types of careers and jobs that they frequently find themselves in. Moreover, men's careers are much more likely to be characterized as upwardly mobile than women's, with men gaining increased status and prestige in their careers as they age (Treiman 1985). Men who encounter a work disability might have more to lose by limiting their employment in order to stay working. Also, men will be more likely to have accumulated adequate resources to exit the labor force permanently.

Hypothesis$_1$: Work disability will have a differential impact on work transitions of women and men such that the impact will be greater for men.

Hypothesis$_2$: Work context characteristics will explain part of the

differential impact that disability has on women's and men's work transitions.

Gender and Health

The morbidity experience of men and women varies substantially over the life course.

There are sex differences in mortality rates with men experiencing higher rates of mortality than

women (Verbrugge 1985; Verbrugge 1989). Men are also more likely than women to encounter

a serious chronic illness that increases risk of mortality, such as coronary heart disease,

atherosclerosis, and emphysema (Verbrugge 1985). Conversely, women are more likely than

men to encounter chronic diseases that are physically limiting, but not life threatening

(Verbrugge 1985). For example, arthritis is the leading cause of activity limitations and women

are twice as likely as men to be limited by arthritis (Mutt, Parsons and Harlan 1986).

Although morbidity among women is higher than men, it is also possible that women's

illness experience differs dramatically. Drawing on the sick role literature, numerous studies

have documented gender differences in the sick role. For example, women are more likely than

men to report symptoms, use health services, and engage in sick role behaviors. One explanation

that has been provided is that the sick role is more culturally acceptable for women than it is for

men (Brown and Rawlinson 1977). Women may be less discouraged than men to talk about

their health problems, symptoms, and pain. Another explanation is that women may more

readily adopt a sick role because it is more compatible with roles (Brown and Rawlinson 1977).

Over the life course, women who engage in domestic labor as a primary activity are more likely

to perform housework duties when they are sick as opposed to men who are more restricted in

paid work activities when they are sick (Brown and Rawlinson 1977). Lifelong patterns of

6

working while sick may continue into later years as well such that disability has less of an impact on women's behavior.

To summarize, if more women restrict their activities when limited than men we might expect that women will be more likely to exit the labor force when disabled or alter their employment situation. On the other hand, when women have lifelong experiences coordinating family responsibilities when sick repeatedly over the life course, they may better adjust to coordinate both a work disability role and the worker role than men. Men's work identity may be less compatible with acknowledging a work disability and modifying work habits to accommodate a work disability.

Hypothesis$_3$: Even after differences in work circumstances are accounted for, we expect that work disability status is more likely to differentiate the labor force transition differences of men than women because of other differences related to how women and men manage health problems over the life course.

DATA AND METHODS

Longitudinal data from the Health and Retirement Study (HRS), waves 1 (1992) and 2 (1994) are employed to investigate work transitions of disabled workers. The HRS is an ideal source of information for this study because it covers a wide range of topics that are central to the subject of this paper. Rich information is available regarding health and work characteristics of disabled workers making these data particularly well suited to exploring the hypotheses outlined in this paper.

Sample

We restrict our analyses to men and women between the ages of 51 and 61 – the target age range of the HRS sample. Individuals who have never worked for at least 6 months are

excluded from the analysis because they are particularly unlikely to reenter the labor force if they have not yet done so by the time they have reached age 51. First, we restrict our analysis to those who are currently working in order to model transitions out of the labor force (n=5,789). Next, individuals are selected who are currently not working, but have worked in the past, in order to model labor force reentry (n=1,661).

Measurement of Work Transitions

Comparing work status in 1992 with labor force status in 1994 is used to capture change in work status. Men and women who are working one or more hours per week in 1992 are at risk of the following transitions: (1) labor force exit (not working at all in 1994), (2) reduction in hours worked (by 5 or more hours), and (3) change employers. Work disabled men and women who do not work in 1992 are at risk for labor force reentry to (1) full-time work (working 35 or more hours per week in 1994) or part-time work (working one to 34 hours per week in 1994).

Measurement of Key Sociodemographic Characteristics

The disablement process typically begins with the onset of chronic conditions or impairments. Verbrugge and Jette (1994) have suggested that some of these conditions are ones that may eventually lead to a loss of functioning and others are not. Most chronic conditions, however, have either short- or long-term effects on the ability to perform the normal activities of daily life. Thus, many chronic conditions will result in the loss of ability to perform specific functions or tasks required on the job. Work disability is commonly defined as the person's inability to meet some or all of the demands of the job. Most retirement research examining the effects of work disability relies on a work limitations measure, i.e., does the respondent report a health condition that limits the amount or type of work they can do. Like prior studies we make use of a **work disability** measure evaluating the presence of a health condition that limits work

ability (1 = limited in the amount or kind of work; 0 otherwise). **Gender** is the other key analytic variable (1=male, 0=female).

Measurement of Other Sociodemographic Characteristics

Older women and men are less likely to change employers and more likely to stop working when they encounter a work disability (Daly and Bound 1996). To account for this effect, **age** is measured in years and is included as a control variable in the multivariate analyses. Educational attainment is a central stratifying feature of the life course and subsequent labor force behavior (Hayward, Grady, Hardy, and Somners 1989). More educated men (Hayward et. al 1989) and women (Pienta, Burr, and Mutchler 1994) have lower retirement rates. **Education** (measured in years of completed education) is included as a control variable to capture this phenomenon.

Whites and other non-white racial/ethnic groups differ in labor force attachment throughout the life course. White men exhibit the strongest labor force attachment of all groups. African American men are more likely to exit the labor force as compared to white men (Burr, Massagli, Mutchler, and Pienta 1996; Hayward, Friedman, and Chen 1996). African American women actually work longer than white women (Belgrave 1988). Hispanic men have lower rates of labor force exiting than African American and white men; Hispanic women have higher rates of exiting compared to women from the other race/ethnic groups (Flippen and Tienda 2000). To capture racial/ethnic differences that might blur gender differences we control for racial/ethnic difference in our sample. **Race/ethnic** group membership is defined by the following set of dummy variables: White (non-Latino), African American (non-Latino), Latino, and other non-White groups. Whites are used as the reference group in multivariate models.

Marital status is important to capture because unmarried groups are often less economically advantaged than their married counterparts and thus may work longer to accrue a larger base of savings to carry them through retirement. Even more important is to differentiate married people who have a spouse working from married people who spouses do not work to account for the well known joint retirement phenomena (Henretta and O'Rand 1983; Henretta, O'Rand and Chan 1993a; 1993b) where spouses exit the labor force at around the same time as one another.

To separate the effects of disability from effects motivated by the health conditions that underlie work disability, we control for chronic disease status. Chronic disease conditions affect not only functional status but also a person's motivation to work (Verbrugge and Jette 1996; Wolinsky, Armbrecht, and Wyrwich 2000). We include measures of both serious and non-serious chronic health conditions (Ferraro and Farmer 1999). Serious illnesses may either increase the value of leisure relative to work and contribute to early retirement expectations or shorten one's time horizon for achieving one's goals. Conversely, delayed retirement may result when a person attempts to manage a serious condition thereby increasing the need for health care insurance or income. **Serious chronic conditions** are measured using self-report of whether a doctor has ever told the respondent that they have hypertension, coronary heart disease, stroke, cancer (nonskin), diabetes, or chronic lung disease. For simplicity, we create a measure where each serious condition is given equal weight (1=condition present, 0=not present) and summed together to form a single measure. **Non-serious chronic conditions** are measured using self-report of whether a doctor has ever told the respondent that he or she has emotional problems; back problems; arthritis; foot or leg problem; stomach problems or ulcers; kidney or bladder

disease; or asthma. We create a measure where each non-serious condition is given equal weight (1=condition present, 0=not present) and summed together to form a single measure.

Household **net worth** is the final sociodemographic characteristic that may differentiate labor force transitions. In general, individuals from resource poor households may have to work longer than those who have saved more for their retirement. Because the distribution of household net worth in the sample is skewed, the natural logarithm of net worth is used in its place in the multivariate models.[1]

Work conditions and resources

The HRS contains an array of work-related measures that define the structural imperatives of work (i.e., factors defining the day-to-day qualities of work activity) that influence retirement behavior (Hayward, Friedman, and Chen1998; Hayward, Grady, Hardy, and Sommers 1989; Hurd and McGarry 1993; Spenner 1988). First, we derive two measures, **physical demands and cognitive demands**, from a factor analysis of eight items assessing current job requirements.[2] Higher scores on each measure reflect greater job demands. These measures are included in only the exit and job change models because comparable information was not collected from those workers who were already out of the labor force in 1992.

The retirement-related extrinsic rewards of work are measured in terms of **pension eligibility status** (no pension coverage available; has pension coverage, but is not yet eligible; and currently receiving or eligible to receive pension benefits), private pension wealth, and health insurance coverage. **Pension wealth** reflects its present value at the time of the 1992 interview.[3] The measure is based on self-report information, and potentially reflects the promise or receipt of employer-provided pension benefits from up to three current or prior jobs. **Health insurance** references whether the respondent is uninsured, has employer-provided insurance

either through one's own employer or spouse's employer, or has health insurance from a non-employer source (including: privately purchased and government provided health insurance such as Medicaid).

Self-employment establishes whether retirement plans are tied to one's position in a bureaucratic organization (Hayward et al. 1998, Ekerdt, Hackney, Kosloski and DeViney 2001). This is important because self-employed workers are likely to encounter less social regulation of work careers (Ekerdt et al. 2001). Also, self-employed men and women may choose to work for non-monetary reasons given that self-employed workers earn less than their non-self-employed counterparts (Hamilton 2000). Self-employment may be attractive to many workers because it includes many non-pecuniary benefits such as greater autonomy, flexibility, intrinsic job satisfaction, and self-expression (Carr 1996; Hamilton 2000). For all of these reasons, self-employment is expected to contribute to labor force transition rates. We also control for **part-time work** (less than 35 hours per week) because part-time workers are likely to have lower labor market attachment than full-time workers. **Occupations** are collapsed into white collar, blue collar and service types of occupations.

Analysis Plans

First, univariate statistics for all independent variables are presented for those in the labor force and those not in the labor force in 1992. Second, labor force transition rates are calculated, for the full sample, by gender, and by gender and work disability. Next, hierarchical sets of multinomial regression models are estimated separately for workers who are in the labor force and lout of the labor force in 1992. Main effects of gender and work disability with and without work characteristics are estimated. Finally, interaction terms (gender by work disability) are included in the hierarchical set of multinomial regression models (first without and then with

work characteristics included as control variables) separately for those work and not working in 1992. Respondent-level weights provided by the HRS staff are used to weight the analyses.

RESULTS

Descriptive sample characteristics are provided for respondents in the labor force in 1992 (column 1) and respondents not in the labor force in 1992 (column 2) in Table 1. Differences across the two samples are determined using t-test and chi-square statistics. All of the characteristics vary across the two samples; exceptions are percent uninsured and percent unmarried. The working sample includes a greater proportion of men (54.1%) than the non-working sample (36.1%). Importantly, the working sample includes a much smaller proportion of women and men who have a work disability (9.9%) than the non-working sample (50.2%). Also, workers in 1992 are younger, more educated, disproportionately white, more likely married to a spouse who is also working, healthier, and wealthier than non-workers in 1992.

(Table 1, about here)

Work conditions and resources are quite different across the two samples as well. More respondents in the labor force are self-employed than respondents out of the labor force in 1992. Pension coverage is higher among workers whereas pension eligibility is greater among non-workers. Pension wealth is also higher among men and women in the labor force. Finally, respondents who were in the labor force in 1992 (76.3) were more likely to have employer-provided health insurance coverage than those not working in 1992 (57.7%).

Table 2 presents the transition rates for (1) the full sample, (2) for women and men separately, and (3) for women and men with and without a work disability. Overall, thirteen percent of respondents have exited the labor force by 1994. Few respondents have reduced their

hours (10.8%) or changed employers (7.9%). Nearly four percent of respondents not working in 1992 have reentered the labor force as full-time workers by 1994; nearly seven percent have reentered as part-time workers. As expected, disabled workers are more likely to exit the labor force and less likely to reenter the labor force than those not disabled. Male and female transition rates are quite similar. Among men, however, 11.2 percent exit the labor force whereas among women 15.2 percent exit the labor force. Among women not in the labor force, nearly 3.3 percent reenter as full-time and 7.8 percent reenter as part-time workers. Among men not in the labor force in 1992 only 4.4 percent reenter as full-time and 4.6 percent reenter as part-time workers.

(Table 2, about here)

Disabled men and women have higher labor force exit rates (23.6% and 25.6% respectively) than non-disabled men and women (9.8% and 14.1% respectively). The work disability status difference is greater among men than among women as expected. No clear pattern emerges among gender, work disability, and reduced hours or change in employers. Work disabled men (1.6% to full-time and 2.8% to part-time) and women (2.4% to full-time and 6.3% to part-time) are less likely to reenter the labor force than non-disabled men (9.6% to full-time and 7.9% to part-time) and women (3.9% to full-time and 9.0% to part-time). As hypothesized, the gap for men is larger than for women.

Table 3 presents the multinomial logistic regression models of the impact of gender and work disability status on the log-odds of each labor force transition of 1992 workers (exit, reduced hours, and change in employer). Standard errors appear in the second column. Model 1 is a base model, including only the sociodemographic controls for those working in 1992. Model 2 adds work conditions and resources of those working in 1992 to the base model.

Labor Force Exit Rates of Workers

In Model 1 of Table 3, men are less likely to exit the labor force than women; they have -.338 lower log odds translating to 29% ($e^{-.338}$ = .71) lower odds of exiting the labor force. Disabled workers are more likely to exit the labor force than non-disabled workers; they have .756 greater log odds translating to 2.13 ($e^{.756}$=2.13) greater odds of exiting the labor force. Model 2 adds measures of work characteristics. The gender and work disability effects remain important, but change in size. The gender effect becomes larger by about 26 percent. Men are less likely to exit the labor force; they have -.422 lower log odds, which translates to 34% ($e^{-.422}$=.66) lower odds. When the differences in work conditions and resources of men and women are controlled for, the gap in labor force behavior is more pronounced. The disability status effect, on the other hand, becomes somewhat smaller when work conditions and resources are controlled for in the model. Disabled workers are more likely than non-disable workers to exit the labor force; they have .667 greater log odds, which translates to 1.95 ($e^{.667}$=1.95) greater odds.

Consistent with other studies, age increases the log-odds of labor force exit (models 1 and 2). Educational differences in model 1 are mediated by work characteristics (see model 2). Serious (models 1 and 2) and non-serious (models 1 and 2) chronic conditions increase the risk of labor force exit. Work characteristics are important predictors of labor force exit. Jobs that are cognitively demanding decrease the log-odds of labor force exit. Full-time workers and self-employed workers are less likely to exit the labor force. Respondents with greater pension wealth are more likely to exit the labor force, as we would expect.

Gender by disability status interactions are shown in Table 4. A gender by disability interaction is statistically significant (p < .05). Figure 1 shows graphically the relationship between gender, disability, and labor force exit. Women and men who are disabled are more likely than non-disabled men and women to exit the labor force. However, the effect of disability on labor force exit is substantially larger for men.

<div align="center">(Table 4 and Figure 1, about here)</div>

Reduction in Hours of Workers

In the base model, gender and disability status do not appear to be related to the log odds that a worker reduces the hours they work. However, when work conditions and resources are accounted for men are less likely than women to reduce hours. In Model 4, men are less likely to reduce hours than women; they have -.195 lower log odds translating to 18% ($e^{-.195}$= .82) lower odds of reducing their hours. Other variables related to reduction in hours are older age, being African American (p<.1), white collar and service occupations, greater physical demands of the job, fewer cognitive demands of the job, full-time employment in 1992, self-employment, no pension, greater pension wealth, and being uninsured.

 Gender by disability status interactions are shown in Table 4. A gender by disability interaction is statistically significant (p < .1). Men are more likely to reduce hours when they are disabled than when they are not disabled. Women, on the other hand are less likely to reduce hours when disabled.

Change in Employers Among Workers

No gender or disability status effects are found regarding job change. Older workers have lower log odds of job change than younger workers (see models 1 and 2). Respondents who are married with a spouse out of the labor force are less likely than unmarried respondents

to change jobs. Non-serious chronic conditions increase the log-odds of job change. Individuals living in households with greater net worth are less likely to change jobs. Work characteristics again have considerable bearing on likelihood of job change in later life. Cognitive job demands increase log-odds of job change. Also, self-employed workers and full-time workers have lower log-odds of job change. Pension wealth reduces the log odds of job change. And, the uninsured and those with non-employer health insurance are more likely to change employers, as we would expect.

Gender by disability status interactions are shown in Table 4. The gender by disability interaction is not related to the log-odds of an individual changing employers – it is not statistically significant.

Labor Force Reentry of Non-Workers

Table 5 presents the log-odds of labor force reentry, from logistic regression models, regressed on gender, work disability status and related sociodemographic and work characteristics. Reentry to full-time and part-time employment is modeled separately. The first model (columns 1 and 2) includes main effects of gender and work disability controlling for sociodemographic characteristics (see model 1). The second model (columns 3 and 4) adds work characteristics to model 1 (see model 2). The third and fourth models include interaction effects of gender and work disability. A main effect of gender is detected (Model 1); men are more likely to reenter to full-time work, they have .815 greater log-odds translating to over 200% ($e^{.815}$=2.26) greater odds of reentering the labor force as full-time workers. Men are less likely than women to reenter the labor force as part-time workers; they have -.439 lower log-odds translating to 46% (e-.439=.64) lower odds of reentry to part-time work. This difference is significant at the .10 level and is reduced to non-significance in model 2 when controls for work

17

characteristics are added to the model. In model 1, disabled workers are less likely to reenter the labor force as full-time workers than non-disabled; they have -936. lower log odds translating to 61% ($e^{-.936} = .39$) lower odds of reentering full-time. The size is this effect is smaller when work characteristics are controlled for in Model 2 by about 8 percent -- consistent with hypothesis 2. Work disability is unrelated to part-time work.

<center>(Table 5, about here)</center>

In addition to work disability, several other variables are related to labor force reentry. Age reduces the log odds of labor force reentry to full-time and part-time employment (models 1 and 2). Increasing numbers of children born increases the log-odds that women return to part-time employment. Married respondents who have a spouse not in the labor force are less likely than unmarried respondents to reenter the labor force full-time. Non-serious conditions lower the log odds of reentry to part-time employment whereas serious health conditions lower the log-odds of reentry to full-time employment. Formerly self-employed workers are more likely to reenter the labor force as full-time workers. Pension wealth increases the log-odds of reentry to full –time (note that this is significant at the .10 level).

Gender by disability status interaction terms are included in the third and fourth sets of models in Table 5. The gender by disability interaction is statistically significant across all four models (note, however, that it is significant at only the .10 level for part-time reentry, model 4). As hypothesized, men who are not disabled are several more likely to reenter the labor force as full-time workers than men who are disabled. No comparable difference between women with and without disabilities exists. Likewise, men with work disabilities are less likely to reenter the labor force part-time although the difference is much less striking as compared to the full-time. No comparable difference exists for women.

CONCLUSIONS

Women and men managing a work disability in midlife have quite different labor force experiences. Disabled men experience the highest labor force exit rates and lowest reentry rates. Whereas disability has a more muted effect on women's rates of transition out of and into the labor force. Differentials stemming from the work context do not eliminate work transition disparities. These findings based on prospective data from the Health and Retirement Study are consistent with earlier cross-sectional analyses showing men's labor force participation rates to be affected by disability more so than women's (Loprest et. al 1995).

One reason that disability may disproportionately affect men's labor force stability is that the typical cause of the disability may vary for women and men. Work disabled men are more likely to be limited by cardiovascular disease than women (Verbrugge and Jette 1996). Work disabled women are more likely to be limited by arthritis than men (Verbrugge and Jette 1996). Pienta and Hayward (2000) have found that serious conditions can have an effect on labor force behavior that is not explained by work ability alone. The results presented here expand the idea that work disability is a complex phenomenon that cannot fully be explained by knowing whether someone is disabled or not.

A second mechanism that may elevate disability differences in labor force transitions for men is employer accommodations. Specific employer accommodations have not been specified in our model. Ideally, we would like to know the extent to which employer accommodations are offered and utilized by the older workers in our sample. Other studies have shown that workers who are offered efficacious accommodations by their employers may fail to note a work disability when interviewed (Kirchner 1998). Unfortunately, HRS includes information about employer accommodation from disabled workers only. Thus, it is not feasible to investigate the

relationship between employer accommodations and report of work disability. Also, we cannot rule out the possibility that work disabled women are more likely to receive employer accommodations as reported by Daly and Bound (1996) using retrospective HRS data. Unfortunately, the prospective data regarding employer accommodations are plagued by severe missing data. Future studies are required to determine whether employer accommodations differentiate the labor force experience of women and men.

A third mechanism deserving additional investigation is the link between women's lifelong health and morbidity experiences and paid and unpaid work activity. Although women encounter illness, particularly disability, more frequently than men, impaired women may draw on life experiences of juggling multiple, and more flexible roles, roles as caretaker to children, spousal roles and unpaid and/or paid work. For these reasons, women may be more likely than men to find the disabled role to be consistent with the work role. Men's highly structured work life and worker identities pay be particularly incompatible with accommodating a work disability. Setterston (1999) has argued that social life has the potential to become comprised of increasing numbers of individuals who have flexible life course boundaries, meaning that the boundaries between work, education, and leisure become more elastic and reciprocally penetrable for both men and women. This notion is consistent with the idea raised here that disabled women may not be any more constrained in the labor force than non-disabled women because of greater flexibility exists between the domains of work and family that women have experienced throughout their lives. Here we argue that health may be equally important in shaping the contours of work life and have bearing on later life experiences.

Because of the relatively short time interval, risk of death was not modeled as a competing risk. One study has estimated that 15 percent of disabled workers are likely to die

over a two-year period, but over a 5-year period as many as 34% are expected to die (McCoy and Iams 1994). Because men's mortality is generally higher than women's, we would expect that labor force transition models that incorporated mortality as a competing risk would mimic this general trend. Because the data are designed to model two-year intervals, it is also possible that we have over- or under-estimated labor force transitions. Individuals may exit or enter the labor force repeatedly. Some workers may exit for a short spell and return. Others may reenter and exit again quickly. Both of these instances would be captured as labor force stability two-years later. In the case of reentry, however, two-year intervals are preferred to modeling a respondent's first return to work because we are more likely to capture meaningful returns to work that are stable. Many workers will return to work following a work disability, but considerably fewer will be able to stay in that job (Butler and Johnson 1995). Thus, we are more apt to capture more permanent labor force transitions with an interval of two-years.

This study shows that work disability alters the labor supply of men and women differently. Because having a work disability does not appear to reduce the labor supply of women in later life, one implication is that the labor supply of older female workers, albeit smaller than the labor supply of male workers, may be more limited by health conditions. Although the women are as likely to continue working when they have a work disability as when they do not, work-limiting conditions may have other daily consequences at work. For example, work productivity of women with work disability may be reduced if employers do not may appropriate accommodations. Physical limitations of workers may contribute to negative subjective responses to work such as one's belief that time spent at work is worthwhile and job satisfaction (Mutran, Reitzes, and Fernandez 1997). More research is needed that examines these kinds of implications.

1   Respondents with negative values are assigned a value of .01 before the natural logarithm is taken.

2   Using the Promax rotation method, an exploratory factor analysis supports a two-factor structure (eigenvalues: 2.45 and 1.98) -- physical job demands and cognitive job demands. Jobs that are physically demanding involve a lot of physical effort, lifting heavy loads, and bending over. Jobs that are cognitively demanding involve good eyesight, intense concentration (or attention), analyzing data (or information), keeping pace set by others, and learning new things. Physical job demands factor loadings range from .85 (job requires stooping or bending) to .87 (job requires lifting heavy objects) explaining 21.6% of the variance (21.4% variance is explained when the other factor eliminated). Cognitive job demands factor loadings range from .57 (job requires good eyesight) to .72 (job requires concentration) explaining 18.6% of the variance (18.5% variance is explained when the other factor eliminated). The inter-factor correlation is -.076. Average scores for each set of items are calculated with Cronbach's alphas of .84 and .64 for physical and cognitive demands respectively.

3   The measure is a constructed measure obtained from the HRS web site (see www.umich.edu/~hrswww/center/rescont2.html for a complete description of this measure).

References

Belgrave, Linda Liska. 1988. "The Effects of Race Differences in Work History, Work Attitudes, Economic Resources, and Health on Women's Retirement." *Research on Aging* 10(3):383-98.

Bianchi, Susan. M. and Nancy Rytina. 1986. "The Decline in Occupational Sex Segregation During the 1970s: Census and CPS Comparisons." *Demography* 23(1):79-86.

Bird, Chloe E. and Allen M. Freemont. 1991. "Gender, Time Use, and Health." *Journal of Health and Social Behavior* 32(2):114-129.

Burr, Jeffrey. A., Michael P. Massagli, Jan E. Mutchler, and Amy M. Pienta. 1996. "Labor Force Transitions Among Older African American and White Men." *Social Forces* 74:963-982.

Carr, Deborah.1996. "Two Paths to Self-employment? Women's and Men's Self-employment in the United States, 1980." *Work and Occupations*. 23:26-53.

Crimmins, Eileen M., Sandy L. Reynolds, and Yasuhiko Saito.1999. "Trends in Health and Ability to Work Among the Older Working-age Population." *Journal of Gerontology: Social Sciences* 54:S31-S40.

Daly, Mary C., and John Bound. 1996. "Worker Adaptations and Employer Accommodation Following the Onset of a Health Impairment." *Journal of Gerontology: Social Sciences* 51B(2):S53-S60.

Ekerdt, David J., Jennifer Hackney, Karl Kosloski, and Stanley DeViney. 2001. "Eddies in the Stream: The Prevalence of Uncertain Plans for Retirement." *Journal of Gerontology: Social Sciences* 56:S162-S170.

Elder, Glenn H., and Jeffrey K. Liker. 1982. "Hard Times in Women's Lives: Historical Influences Across Forty Years." *American Journal of Sociology* 88(2):241-269.

Flippen, Chenoa, and Marta Tienda. 2000. "Pathways to Retirement: Patterns of Labor Force Participation and Labor Market Exit Among the Pre-retirement Population by Race, Hispanic Origin, and Sex." *Journal of Gerontology: Social Sciences* 55B:S14-S27.

Fuchs, Victor R. 1989. "Women's Quest for Economic Equality." *Journal of Economic Perspectives* 3(1):25-41.

Gendell, Murray, and Jacob S. Siegel. 1996. "Trends in Retirement Age in the United States, 1955-1993, by Sex and Race." *Journals of Gerontology: Social Sciences* 51:S132-S139.

Gove, Walter R. 1984. "Gender Differences in Mental and Physical Illness: The Effect of Fixed Roles and Nurturant Roles." *Social Science and Medicine* 19(2):77-91.

Habeck, Rochelle V., H. Allan Hunt, and Brett VanTol. 1998. "Workplace Factors Associated with Preventing and Managing Work Disability." *Rehabilitation Counseling Bulletin* 42:98-139.

Habeck, Rochelle V., Susan M. Scully, Brett VanTol, and H. Allan Hunt. 1998. "Successful Employer Strategies for Preventing and Managing Disability." *Rehabilitation and Counseling Bulletin* 42(2):144-160.

Hamilton, Barton H. 2000. "Does Entrepreneurship Pay? An Empirical Analysis of the Returns of Self-employment." *The Journal of Political Economy.* 108:604-631.

Hardy, Melissa A., and Kim Shuey. 2000. "Pension Decisions in a Changing Economy: Gender, Structure, and Choice." *Journal of Gerontology: Social Sciences* 55B:S271-277.

Hayward, Mark D., Samantha Friedman, and Hsinmu Chen. 1996. "Race Inequities in Men's Retirement." *Journal of Gerontology: Social Sciences* 51B:S1-S10.

Hayward, Mark D., Samantha Friedman, and Hsinmu Chen. 1998. "Career Trajectories and Older Men's Retirement." *Journal of Gerontology: Social Sciences* 53B:S91-S103.

Hayward, Mark D., William R. Grady, Melissa A. Hardy, and David Sommers. 1989. Occupational Influences on Retirement, Disability, and Death. *Demography 26:* 393-409.

Henretta, John C. and Angela M. O'Rand. 1983. "Joint Retirement in the Dual Worker Family." *Social Forces* 62(2):504-20.

Henretta, John C., Angela M. O'Rand, and Christopher G. Chan. 1993a. "Joint Role Investments and Synchronization of Retirement: A Sequential Approach to Couples' Retirement Timing." *Social Forces* 71(4):981-1000.

Henretta, John C., Angela M. O'Rand, and Christopher G. Chan. 1993b. "Gender Differences in Employment After Spouses' Retirement." *Research on Aging* 15(2):148-69.

Hurd, Michael, and Kathleen McGarry. 1993. "The Relationship Between Job Characteristics and Retirement." *National Bureau of Economic Research working paper: 4558*.

Hutton, Sandra. 1994. "Men's and Women's Incomes: Evidence from Survey Data." *Journal of Social Policy* 23:21-40.

Kirchner, Corinne. 1998. Letter to the Editor. *JAMA* 279:1348-1349.

LaPlante, M.P. 1993. "Prevalence of Work Disability – United States, 1990." *JAMA* 270:1921.

Loprest, Pamela, Kalman Rupp, and Steven H. Sandell. 1995. "Gender, Disability, and Employment in the Health and Retirement Study." *The Journal of Human Resources* 30:S293-S318.

McCoy, John L. and Howard M. Iams. 1994. "Disabled workers' risk of hospitalization and death." *Health Care Financing Review* 15:61-77.

Mutran, Elizabeth J., Donald J. Reitzes, and M. E. Fernandez. 1997. "Self-Esteem and Subjective Responses to Work among Mature Workers: Similarities and Differences by Gender." *Journal of Gerontology: Social Sciences* 52:S89-S96.

Mutt, H.A., Parsons, P.E., & Harlan, W.R. 1996. "Disability, Utilization and Costs Associated with Musculoskeletal Conditions." National Medical Care Utilization and Expenditure Survey, series C, 5, DHHS pub. 86-20405.

Nuttbrock, Larry. 1986. "The Management of Illness Among Physically Impaired Older People: An Interactionist Interpretation." *Social Psychology Quarterly* 49:180-191.

Reisne, Susan, and Judith Fifield. 1995. "Family Work Demands, Employment Demands and Depressive Symptoms in Women with Rheumatoid Arthritis." *Women & Health* 22: 25-45.

Rosenfield, Sarah. 1980. "Sex Differences in Depression; Do Women Always have Higher Rates?" *Journal of Health and Social Behavior* 21(1):33-42.

Ruhm, Christopher J. 1996. "Gender Differences in Retirement Behavior During Late Middle Age." *Journal of Gerontology: Social Sciences* 51B:S11-S17.

Settersten, Richard A. Jr. 1999. "Lives in Time and Place." Society and Aging Series, edited by Jon A. Hendricks. Baywood Press.

Spenner, Kenneth I. 1988. "Social stratification, work, and personality." *Annual Review of Sociology* 14:69-97.

Treiman, Donald J. 1985. "The Work Histories of Women and Men: What We Know and What We Need to Find Out." Pp. 213-231 in *Gender and the Life Course,* edited by Alice S. Rossi. Aldine Press.

Verbrugge, Lois M. 1985. "Gender and Health: An Update on Hypotheses and Evidence." *Journal of Health and Social Behavior* 26(3):156-182.

Verbrugge, Lois M. 1989. "The Twain Meet: Empirical Explanations of Sex Differences in Health and Mortality." *Journal of Health and Social Behavior* 30:282-304.

Wooton, Barbara H. 1997. "Gender Differences in Occupational Employment. *Monthly Labor Review* 120, April:15-24.

Figure 1. Conceptual Model of Labor Force Transitions

Working → Exit

Working → Reduced Hours

Working → Change Jobs

Not Working → Reentry
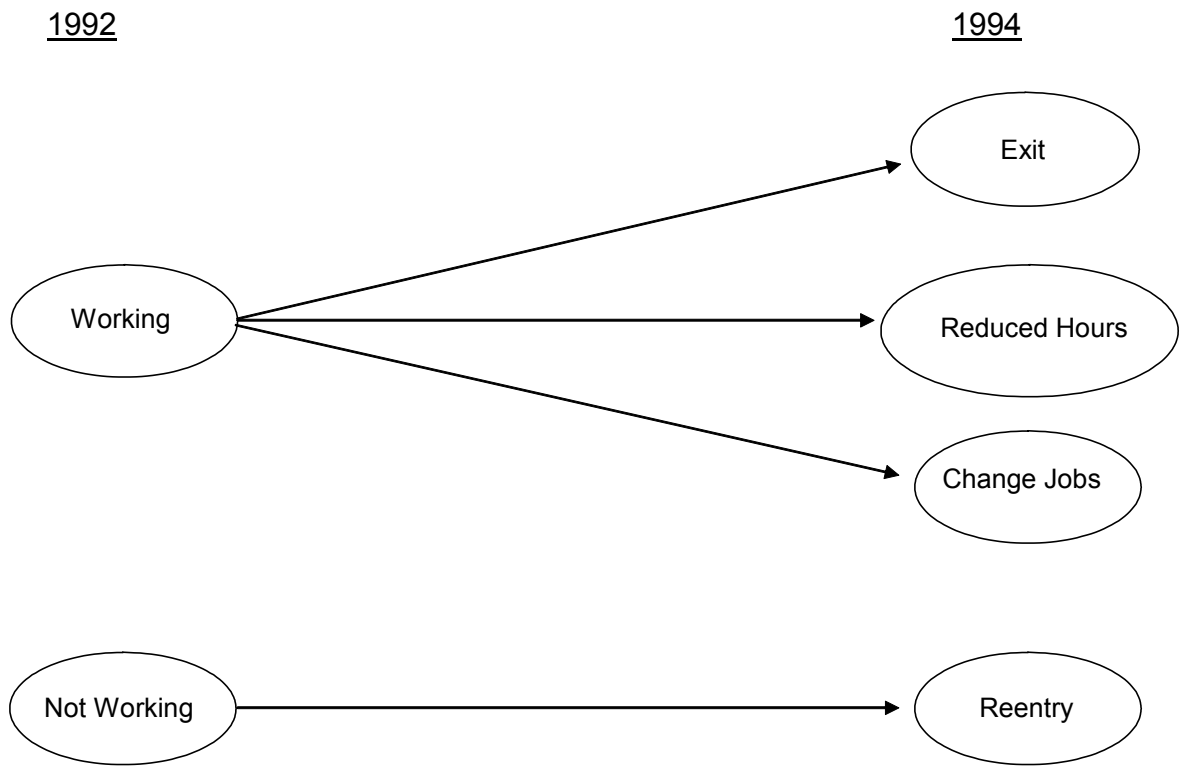
Table 1. Descriptive Sample Charcteristics

	In the Labor Force, 1992 (n=5879)	Not in the Labor Force, 1992 (n=1661)
Sociodemographic Characteristics		
Male (%)	54.1	36.1
Work disability (%)	9.9	50.2
Age (mean)	55.4	56.5
Education (mean)	12.8	11.9
Race Ethnicity (%)		
African American	9.1	12.4
Hispanic	5.2	6.6
White	86.7	81
Marrital Status (%)		
Marr. Sp. in Labor Force	54.3	42.3
Marr. Sp. Not in Labor Force	20.4	33.1
Unmarried	25.3	24.7
Non-serious Conditions (mean)	1.2	2
Serious Conditions (mean)	0.7	1.1
Net Worth (median)	122,900.0	103,500.0
Work Characteritics		
Full time (%)	81.8	n/a
Job requires heavy physical demands (mean)	4.5	n/a
Job requires heavy cognitive demands (mean)	11.4	n/a
Occupation (%)		
White collar	32.4	21.9
Blue collar	33.9	36.1
Service sector	33.8	42.1
Self employed (%)	18.1	9.7
Pension Status (%)		
Covered by a pension	47.0	13.9
Eligible for a pension	19.4	35.4
No pension	33.6	50.7
Pension wealth (mean)	66,781.2	46,177.5
Health Insurance Status (%)		
Employer health insurance	76.3	57.7
Other health insurance	10.5	28.5
No health insurance	13.2	13.7

Table 2. Labor Force Exit, Reduced Hours, Change Employers, and Labor Force Reentry Rates for Men and Women by Disability Status.

	n	EXIT	REDUCED HOURS	CHANGE EMPLOYERS	REENTRY
Total	5879	13.4	10.7	8.0	11.8
Disabled	576	25.9	10.9	7.5	7.5
Not Disabled	5303	12.0	10.6	8.1	16.5
Men	3141	11.2	11.3	7.7	10.0
Disabled	327	23.6	13.4	6.9	4.6
Not Disabled	2814	9.8	11.1	7.8	19.5
Women	2738	15.2	10.1	8.1	13.0
Disabled	249	25.6	8.1	9.2	10.3
Not Disabled	2489	14.1	10.3	8.0	14.9

Table 3. Multinomial Logistic Regression Models, Labor Force Exit, Reduced Hours, and Change of Employers, for Men and Women in the Labor Force (1992).

	MODEL 1 EXIT		MODEL 2 EXIT		MODEL 1 REDUCED HOURS		MODEL 2 REDUCED HOURS		MODEL 1 CHANGE EMPLOYERS		MODEL 2 CHANGE EMPLOYERS	
Sociodemographic Characteristics												
Male [A]	-0.346 ***	(0.083)	-4.347 ***	(0.098)	0.063	(0.089)	-0.163	(0.103)	-0.020	(0.101)	0.203 *	(0.119)
Disabled	0.764	(0.120)	0.676 ***	(0.123)	0.225	(0.151)	0.190	(0.155)	0.063	(0.174)	0.012	(0.177)
Age	0.161 ***	(0.014)	0.147 ***	(0.014)	0.070 ***	(0.014)	0.066 ***	(0.015)	-0.022	(0.017)	-0.031 *	(0.017)
Education	-0.034 **	(0.015)	-0.028	(0.019)	0.002	(0.017)	-0.004	(0.020)	-0.003	(0.019)	0.040 *	(0.023)
Married Sp Works	-0.128	(0.103)	-0.113	(0.105)	0.053	(0.112)	-0.064	(0.123)	-0.246	(0.121)	-0.064	(0.158)
Married Sp OLF	-0.057	(0.122)	-0.075	(0.124)	0.051	(0.134)	0.114	(0.137)	-0.246	(0.156)	-0.247	(0.158)
African American	0.175	(0.140)	0.123	(0.142)	0.122	(0.155)	0.169	(0.158)	-0.094	(0.177)	-0.079	(0.180)
Hispanic	0.144	(0.187)	0.091	(0.191)	-0.044	(0.212)	-0.073	(0.217)	-0.078	(0.230)	-0.194	(0.235)
Non-fatal conditions	0.071 **	(0.035)	0.076 **	(0.035)	0.024	(0.038)	0.027	(0.039)	0.078 *	(0.042)	0.079 *	(0.042)
Serious conditions	0.171 ***	(0.049)	0.161 ***	(0.050)	-0.022	(0.057)	-0.002	(0.058)	0.026	(0.064)	0.046	(0.065)
Log of net worth	0.012	(0.014)	0.022	(0.015)	0.013	(0.016)	-0.004	(0.015)	-0.048 ***	(0.014)	-0.031 **	(0.015)
Work Charateristics												
White collar			-0.080	(0.127)			0.456 ***	(0.132)			0.003	(0.158)
Service			-0.098	(0.111)			0.231 *	(0.125)			0.181	(0.138)
Physical Demands Job			0.002	(0.217)			0.044 *	(0.023)			0.026	(0.025)
Cogn. Demands Job			-0.065 ***	(0.013)			-0.020	(0.014)			0.067 ***	(0.017)
Full-time			-0.302 ***	(0.103)			0.863 ***	(0.139)			-0.102	(0.131)
Self employed			-0.226 *	(0.124)			0.882 ***	(0.115)			-0.624 ***	(0.155)
Covered by pension			-0.184 *	(0.109)			-0.493 ***	(0.115)			-0.751 ***	(0.128)
Eligible for pension			0.158	(0.127)			-0.379 ***	(0.142)			-0.193	(0.161)
Pension wealth			0.014 ***	(0.003)			0.007 **	(0.003)			-0.014 **	(0.006)
Other Health insurance			0.223	(0.139)			0.119	(0.140)			0.553 ***	(0.160)
Un-insured			0.314 **	(0.128)			0.206	(0.135)			0.754 ***	(0.139)
Intercept	-10.466 ***	(0.811)	-8.880 ***	(0.872)	-6.011 ***	(0.838)	-6.466 ***	(0.922)	-0.367	(0.965)	-1.296	(01.047)
Model X2	11124.722		10721.541									
D.F.	36		69									

A denotes log-likelihood coefficients, standard errors in parentheses.
*p<.10; **p<.05; ***p<.01.

Table 4. Multinomial Logistic Regression Models, Labor Force Exit, Reduced Hours, and Change of Employers, for Men and Women in the Labor Force (1992).

	MODEL 3 EXIT		MODEL 4 Exit		MODEL 3 REDUCED HOURS		MODEL 4 REDUCED HOURS		MODEL 3 CHANGE EMPLOYERS		MODEL 4	
Male A	-0.410 ***	(0.090)	-0.506 ***	(0.104)	0.013	(0.093)	-0.214 **	(0.106)	0.002	(0.106)	0.232 *	(0.123)
With disability	0.536 ***	(0.170)	0.423 **	(0.174)	-0.115	(0.251)	-0.158	(0.256)	0.168	(0.243)	0.148	(0.246)
Interaction	0.429 *	(0.225)	0.481 **	(0.229)	0.547	(0.304)	0.561 *	(0.310)	-0.207	(0.333)	-0.263	(0.338)
Other Sociodemographic Characteristics												
Age	0.162 ***	(0.014)	0.148 ***	(0.014)	0.070 ***	(0.014)	0.067 ***	(0.015)	-0.023	(0.333)	0.031 *	(0.017)
Education	-0.034 **	(0.015)	-0.028	(0.019)	0.002	(0.017)	-0.004	(0.020)	-0.003	(0.019)	0.040 *	(0.023)
Married Sp Works	-0.126	(0.103)	-0.110	(0.105)	0.055	(0.112)	0.128	(0.115)	-0.105	(0.121)	-0.065	(0.123)
Married Sp OLF	-0.053	(0.122)	-0.070	(0.124)	0.056	(0.134)	0.120	(0.137)	-0.248	(0.156)	-0.247	(0.158)
African American	0.177	(0.140)	0.126	(0.142)	0.123	(0.155)	0.170	(0.158)	-0.096	(0.177)	-0.079	(0.180)
Hispanic	0.144	(0.187)	0.092	(0.191)	-0.044	(0.212)	-0.074	(0.217)	-0.077	(0.230)	-0.191	(0.233)
Non fatal conditions	0.072 **	(0.035)	0.077 **	(0.035)	0.026	(0.038)	0.028	(0.039)	0.077 *	(0.042)	0.080 *	(0.043)
Serious conditions	0.169 ***	(0.049)	0.159 ***	(0.050)	-0.024	(0.057)	-0.003	(0.058)	0.027	(0.064)	0.048	(0.065)
Log of net worth	0.012	(0.014)	0.022	(0.015)	0.013	(0.016)	-0.004	(0.015)	-0.048 ***	(0.014)	-0.031 **	(0.015)
Work Charateristics												
White collar			-0.079	(0.127)			0.454 ***	(0.133)			0.005	(0.158)
Service			0.049	(0.055)			-0.115 **	(0.062)			-0.092	(0.069)
Physical Demnds Job			0.003	(0.022)			0.043 *	(0.023)			0.026	(0.025)
Cogn. Demands Job			-0.066 ***	(0.013)			-0.021	(0.014)			0.067 ***	(0.017)
Full-time			-0.299 ***	(0.103)			0.863	(0.140)			-0.104	(0.131)
Self employed			-0.234 *	(0.125)			0.880 ***	(0.115)			-0.624 ***	(0.155)
Covered by pension			-0.193 *	(0.109)			-0.498 ***	(0.115)			-0.750 ***	(0.128)
Eligible for pension			0.144	(0.127)			-0.387 ***	(0.142)			-0.190	(0.161)
Pension wealth			0.014 ***	(0.003)			0.007 **	(0.003)			-0.014 **	(0.006)
Other Health insurance			0.223	(0.139)			0.203	(0.135)			0.554 ***	(0.160)
Un-insured			0.304 **	(0.128)			0.117	(0.140)			0.754 ***	(0.139)
Intercept	-10.472 ***	(0.811)	-8.941 ***	(0.873)	-6.013 ***	(.838)	-6.339 ***	(0.922)	-0.369	(0.965)	-01.217	(1.048)
Model X2	11117.709		10713.355									
D.F.	39		72									

A denotes log-likelihood coefficients, standard errors in parentheses.

*p<.10; **p<.05; ***p<.01.

Table 5. Mulitnomial Logistic Regressions, Labor Force Reentry among Men and Women Out of the Labor Force (1992).

	MODEL 1		MODEL 2		MODEL 3		MODEL 4	
Male	-0.056	(0.181)	-0.067	(0.217)	0.479 **	(0.221)	0.516 **	(0.265)
Disabled	-0.593 **	(0.216)	-0.542 **	(0.219)	-0.129	(0.241)	-0.103	(0.243)
Interaction	---	---	---	---	-1.376 ***	(0.369)	-1.375 ***	(0.378)
Other Sociodemograhic Characteristics								
Age	-0.127 ***	(0.026)	-0.129 ***	(0.026)	-0.131 ***	(0.027)	-0.130 ***	(0.027)
Education	0.001	(0.031)	-0.003	(0.035)	-0.004	(0.032)	-0.001	(0.035)
Married spouse works	0.028	(0.230)	0.034	(0.241)	0.084	(0.233)	0.112	(0.244)
Married spouse OLF	-0.441 **	(0.254)	-0.468 *	(0.261)	-0.417	(0.257)	-0.423	(0.264)
African American	-0.089	(0.284)	-0.116	(0.288)	-0.080	(0.286)	-0.101	(0.290)
Hispanic	0.424	(0.311)	0.368	(0.322)	0.466	(0.316)	0.409	(0.324)
Non-serious conditions	-0.169 **	(0.067)	-0.171 ***	(0.068)	-0.180 ***	(0.068)	-0.181 ***	(0.068)
Serious conditions	-0.074	(0.088)	-0.070	(0.089)	-0.072	(0.088)	-0.071	(0.089)
Log of net worth	-0.002	(0.024)	-0.005	(0.024)	-0.004	(0.023)	-0.005	(0.024)
Work Charateristics								
White collar			0.119	(0.257)				
Service			0.153	(0.209)				
Self employed			0.430 *	(0.261)			0.429	(0.264)
Covered by pension			-0.017	(0.251)			0.020	(0.252)
Eligible for pension			0.017	(0.224)			-0.088	(0.235)
Pension wealth			0.009 **	(0.004)			0.009 **	(0.004)
Other Health insurance			-0.159	(0.227)			-0.124	(0.229)
Un-insured			0.417 *	(0.242)			0.423 *	(0.242)
Intercept	5.867 ***	(1.499)	5.8370 ***	(1.579)	6.016 ***	(1.515)	5.699 ***	(1.585)
Model X2	1096.331		1081.536		1081.759		1067.654	
D.F.	11		19		12		20	

A denotes log-likelihood coefficients, standard errors in parentheses.
*p<.10; **p<.05; ***p<.01.