

Employment and Disability: Evidence From the 1996 Medical Expenditures Panel Survey

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The relationship between employment and disability has gained national attention, as the ability to maintain employment is inconsistent among those with limitations. This cross-sectional study of employment among individuals ($N = 1691$, age 21–62 years) with self-reported limitations in the 1996 Medical Expenditures Panel Survey seeks to identify predictors of employment despite physical and/or cognitive limitations. Two predictive models of employment including 10 variables are explored; 1 included insurance ($\chi^2 = 3856.85$, $p \leq 0.00$) and the other removed the insurance variable ($\chi^2 = 280.21$, $p \leq 0.00$). Individuals with limitations who are employed are more likely to have a college-level education, have better physical and mental health perceptions and have private insurance. This analysis demonstrates that people do work despite reported activity, functional or sensory limitations and that socioeconomic factors are crucial in why someone is able to attain employment.

KEY WORDS: disability; employment; vocational rehabilitation.

INTRODUCTION

A resurgence in focused examination of employment for the poor and disadvantaged has come to light with the advent of programs such as the Welfare to Work program, which targets women receiving welfare benefits for themselves and their children, and the Ticket to Work and Work Incentives Improvement Act of 1999 (TWWIIA), legislation that encourages individuals with disabilities to return to work and leave the disability rolls. Both of these pieces of legislation have as their inherent goal to reduce federal and state subsidies for these disabled individuals. It has been reported that people with activity limitations are more likely to be unemployed and more likely to receive federal funds (1). In fact, the Social Security Administration (SSA) spends \$55 billion annually on beneficiaries with disabilities (2). No such numbers exist to describe those who *have* functional limitations and *do* work and are not part of a disability program; an understanding of the factors that

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keep those with limitations working may have bearing on what keeps a person not labeled as “disabled” working.

The bulk of literature on disability and employment focuses on returning people already determined to be disabled to work (3,4). It has been reported that the probability of people with limitations returning to work once determined “disabled” by the SSA depends on such variables as age, educational attainment, and prior work productivity (5,6). Also to a lesser extent, gender and marital status have been reported as affecting employment for people with disabilities (7,8).

However, none of these studies focus on those who are able to work despite their limitations. The ability to maintain active employment for persons with severe physical and/or cognitive limitations varies by individual, but most in the field agree that maintenance of employment is related to better quality of life and less dependency on community financial supports (5,6), particularly, as less than 3.0% of those who are determined to be disabled and receive disability benefits under the SSA ever leave the rolls to return to work (9). It is important to explore the characteristics of what factors allow for the persistence of employment despite functional limitations. Whereas several studies, including some meta analyses (10–12) have explored the factors that address the duration of the absence from work following injury, particularly, the factors that lead to application for retirement or disability benefits, little work has been completed on those individuals with limitations who are working prior to the development of a chronic illness or injury.

In this present paper, we seek to characterize those with self-reported limitations who continue to work despite those limitations. We analyze the Medical Expenditure Panel Survey (MEPS) to investigate the role of education, gender, marital status, prior work experience, insurance status, and age in the employment status of individuals 21–62-years old who reported severe physical and/or cognitive limitation(s), but were *not* determined “disabled” by the SSA nor receiving long-term disability benefits. The objectives are to (1) examine the rates of employment among this population; (2) compare patterns of employment and unemployment across demographic subgroups, including gender, race, marital status, age, and type of work; (3) gain insight into what allows some people, despite severe physical and/or cognitive limitations, to continue to work. Identifying the characteristics of those who work, prior to a formal determination of severe impairment for disability benefits, may provide insight for practitioners and policy makers on how best to support such individuals so they may either continue employment or return to work, thereby decreasing dependency on state and federal resources.

METHODS

Data Source

This study makes use of the Household Component of the Medical Expenditure Panel Survey (MEPS) data from 1996. MEPS is a database of nationally representative data on health care use, expenditures, sources of payment, and insurance coverage for a non-institutionalized civilian population. The Household Component of the survey for 1996 is a nationally representative subsample of 8586 households drawn from those who participated in the prior year’s National Center for Health Statistics National Health Interview Survey.

A designated informant answers questions regarding the health and status of all those living in the household.

The present analysis includes working-aged individuals 21–62 years in 1996. This age range was selected to match the period of eligibility used by the SSA, with age 62 being a transition point where an individual may opt for early retirement benefits. We also excluded individuals with missing data on employment status. Because individuals who receive Medicare or Medicaid because of their receipt of Social Security Disability Benefits may perceive a loss of income and health insurance as a consequence of employment, and who may, in turn, not choose to be employed (13,14), we excluded individuals on public insurance ($n = 491$). The final sample included 1691 participants.

Measures

Definition of Activity, Functional, and Sensory Limitations

We have broadly defined limitations that lead to disability to parallel the Americans with Disabilities Act theme and the *International Classification of Functioning, Disability, and Health* (15), which stresses the individual's ability to interact or participate in his or her social environment, rather than the ability engage in job-related activities, as the SSA does. In MEPS, individuals are queried about their physical and cognitive limitations in several ways. In our study, we refer to those with limitations (i.e., difficulty in executing activities) as a result of their impairment or problems in body function, including psychological functions. The limitations in our study may relate to any area of activity of daily living, instrumental activity of daily living, and functional or sensory limitations during the year. We restrict the use of the label of "disabled" to those who have been determined disabled through the SSA, entitling them to benefits under their program.

Dependent Variable

Employment

Employment was defined as having a job in 1996. This included only individuals who were currently employed during the study period. If an individual had a job to return to or reported themselves as unemployed, they were considered unemployed. Whereas having a job to return to may indicate an individual's capacity to work, this study was interested in those who were actively employed at the start of the enrollment period.

Covariates

Demographic Variables

These included gender, race/ethnicity, age, marital status, and region of residence, as well as number of children.

Census Region. The regions of the United States were split into four areas for this variable: South, West, Northeast, and Midwest.

Marital Status. We used the variable SPOUIN96 to reflect marital status. This variable indicated if the spouse was actually present in the home of December 31, 1996.

Number of Kids. We used family-level identifiers and calculated the total number of children under age 18, for each family. This variable was then merged with the person-level file so that number of children per family was associated with each person in the household.

Socioeconomic Status

Family Income. This variable was constructed by using several variables to create the final POVCAT variable for family income. A person-level total income comprising annual earnings from wages, salaries, bonuses, tips, commissions; business and farm gains and losses; unemployment and worker's compensation; interest and dividends; alimony, child support, and other private cash transfers; private pensions, IRA withdrawals, social security, and veterans payments; Supplemental Security Income and cash welfare payments from public assistance, Aid to Families with Dependent Children, and Aid to Dependent Children; gains or losses from estates, trusts, partnerships, corporations, rent, and royalties; and a small amount of "other" income was collected for individual-level income. (Family income excluded tax refunds and capital gains.) Person-level income totals were then summed over family members as defined by the variable CPSFAMID to yield the family-level total. POVCAT, the variable used for the current study, is constructed by dividing family income by the applicable poverty line (based on family size and composition), with the resulting percentages grouped into the following four categories: "Poor" indicating less than 100% of the poverty line, "Near Poor" indicating between 100 and 199% of the poverty line, "Middle Income" indicating between 200 and 399% of the poverty line, and finally, "High Income" indicating 400% or greater income over the poverty line.

Educational Attainment. This variable was based on the number of years of school attended and educational degree status. We constructed four categories representing "No High School" for those with less than 12 years of education, "high school" for those with 12 years of school, and for those with more than 12 years of education, but without having achieved a Bachelor's Degree, "Bachelor's Degree" for those who reported completing this degree, and finally "Advanced Degree" for those with more than 12 years of school who reported having a Master's Degree or PhD.

Insurance. This variable (INSCOV96) summarized health insurance coverage for the person in 1996, with the following two values: "Any Private" (Person had any private insurance coverage any time during 1996); and "Uninsured" (Person was uninsured during all of 1996).

Perceived Health Status

Physical Perceived Health Status and Mental Perceived Health Status. Physical health (RTEHLTH1) and mental health (MNTHLTH1) status questions asked the respondent to rate themselves according to the following categories: Excellent, Very Good, Good, Fair, Poor. To ensure sufficient sample size, we collapsed Excellent/Very Good and Fair/Poor

into single categories to create a three-tiered response variable of “Excellent/Very Good,” “Good,” and “Fair/Poor.”

Race/Ethnicity

The variable for race combined Hispanic ethnicity and the RACE96 variable to produce four categories for use in this study: “White,” “African American,” “Hispanic” and, “Other.”

ANALYSES

In bivariate analyses, estimates of rates of employment by subgroups, such as race/ethnicity, education, income, insurance status, perceived health status and others, were computed. Logistic regression was used to estimate the probability of employment for those aged 21–62 years of age who reported having any limitation. Ten predictor variables were used in the analysis. Income was only used in the bivariate analyses given that it reasonable to think that a participant would be more likely to have increased income if they were employed (i.e., employment should predict receipt of income) rather than unemployed. Therefore, it was not useful to include this variable in the logistic regression analyses. The regression was performed on all individuals meeting the age and functional limitation requirements ($N = 1691$). All analyses used appropriate weights provided in the MEPS data to arrive at unbiased national estimates. Sudaan software was used to adjust standard errors to account for the complex sampling design.⁴

RESULTS

Table I describes the characteristics of disabled individuals aged between 21 and 62 years, and of those who were employed during the study period. Individuals (48% males) were more likely to be 30 years and older, with 37% being 50 years and older in the overall sample. This sample was 81% White, non-Hispanic; 9% African American, non-Hispanic; and 12% Hispanic. More than half of the sample (37%) was college educated. Three hundred twenty-five individuals (18%) were uninsured. Approximately 37% of the sample had high income.

Looking specifically at those who were employed, we found significant differences in the rates of employment among disabled individuals by gender, race/ethnicity, age, education, health insurance, and other variables (Table I). Overall, nearly 73% of the sample worked. A higher proportion of men (81.1%) than women (65.1%) worked during the survey period. Disabled racial minorities were less likely to work compared to whites. A significant portion of those employed had private health insurance (85%), and the age group with the highest rate of employment was spread between the 30–39-year olds (80.0%) and those 40–49-years old (79.3%). Also, perceived health status, both physical and mental, was higher in those with very good/excellent perceptions of physical health (81.9%) and mental health (77.5%).

⁴Research Triangle Institute, *Sudaan User's Manual*, release 8.0. Research Triangle Park, NC: Research Triangle Institute, 2001.

Table I. Description of Disabled Individuals and Rates of Employment among Disabled Individuals Medical Expenditure Panel Survey, 1996

	Total sample			Employment status		
	<i>N</i>	Wt. <i>N</i>	Wt.%	<i>N</i>	Wt. <i>N</i>	Wt.%
All	1691	21,721,144	100.0	1206	15,816,589	72.8
Gender						
Male	776	10,471,154	48.2	622	8,496,752	81.1*
Female	915	11,249,990	51.8	584	7,319,837	65.1
Race/ethnicity						
White	1254	17,506,533	80.6	921	13,095,066	74.8
African American	163	1,908,017	8.8	109	1,212,510	63.6
Hispanic	232	1,674,287	7.7	151	1,137,802	68.0
Other	42	632,308	2.9	25	371,211	58.7
Age						
21–29 years	189	2,642,653	12.2	141	2,044,226	77.4
30–39 years	352	4,535,710	20.9	271	3,629,075	80.0
40–49 years	500	6,488,500	29.9	393	5,144,378	79.3
50 years and older	650	8,054,280	37.1	401	4,998,910	62.1
Marital status						
Spouse in home	1104	13,636,238	62.8	771	9,733,777	71.4
Other	587	8,084,906	37.2	435	6,082,811	75.2
Education						
NO HS	337	3,702,833	17.2	194	2,166,085	58.5
HS	918	11,835,585	55.0	659	8,560,957	72.3
Bachelor's Degree	334	4,695,666	21.8	271	3,896,671	83.0
Advanced Degree	88	1,276,601	5.9	71	1,011,868	79.3
Poverty status						
Less than—100%	200	2,077,809	9.6	82	835,933	40.2
100%—199%	313	3,987,641	18.4	195	2,494,619	62.6
200%—399%	583	7,555,562	34.8	443	5,793,546	76.7
400% and higher	595	8,100,131	37.3	486	6,692,491	82.6
Insurance coverage						
Private	1366	17,871,959	82.3	1015	13,520,839	75.7
Uninsured	325	3,849,185	17.7	191	2,295,750	59.6
Region						
Northeast	247	3,162,305	14.6	171	2,203,754	69.7
Midwest	427	5,550,973	25.6	315	4,148,765	74.7
South	618	7,804,149	35.9	429	5,536,931	71.0
West	399	5,203,717	24.0	291	3,927,140	75.5
Perceived physical health status						
Excellent/very good	718	9,682,962	44.6	579	7,930,952	81.9
Good	507	6,449,639	29.7	388	5,007,613	77.6
Fair/poor	465	5,582,934	25.7	239	2,878,024	51.6
Perceived mental health status						
Excellent/very good	1073	14,018,292	64.7	816	10,860,440	77.5
Good	426	5,408,650	25.0	299	3,824,074	70.7
Fair/poor	189	2,255,285	10.4	90	1,113,802	49.4
Number of children under 18						
None	1024	13,788,165	63.5	715	9,821,866	71.2
One	294	3,617,358	16.7	210	2,665,880	73.7
Two	251	2,965,566	13.7	195	2,340,730	78.9
Three or more	122	1,350,055	6.2	86	988,112	73.2
Employed						
Employed	1206	15,816,589	72.8			
Unemployed	485	5,904,555	27.2			

Note. Based on disabled noninstitutionalized civilian population between 21 and 62 years of age. Asterisks represent significant group differences compared to the reference category.

* $p \leq 0.00$.

Two analytical models are presented in Table II. Model 2 presents the full model with all predictors including insurance coverage, race, number of children, education, age, marital status, gender, and perceived physical and mental health status. Model 1 excludes the insurance variable for the set of predictors. Model 1 without insurance is significant ($\chi^2 = 280.21$, $p \leq 0.00$) as well as Model 2, with the insurance variable included, but with a larger chi-squared value ($\chi^2 = 3856.85$, $p \leq 0.00$). Given that the availability of insurance is an important variable that may positively affect the return to work behavior following injury or illness (12), we felt it important to consider this factor in those who are continuing to work despite their limitations. In our study, of those who were employed, 75% had private insurance.

Without insurance, the only significant variables for predicting employment are gender (women are half as likely to be employed than men) and perceived health status both physical (Excellent/Very Good OR = 2.94, 95% CI = 2.01–4.29, $p \leq 0.00$ and Good OR = 2.76, CI = 1.90–4.01, $p \leq 0.00$) and mental Excellent/Very Good OR = 2.27, CI = 1.39–3.70, $p \leq 0.00$ and Good OR = 2.50, CI = 1.51–4.12, $p \leq 0.00$). On the other hand, when insurance is included, seven of the remaining variables in the model become significant. These remaining variables include being female (OR = 0.39, CI = 0.29–0.53, $p \leq 0.00$), having a college education (OR = 1.68, CI = 1.18–2.4, $p \leq 0.00$) and living without a spouse in the home (OR = 1.48, CI = 1.11–1.99, $p \leq 0.00$), all of which predicted better employment for individuals with limitations. Individuals with private insurance are more than twice as likely to be employed than those who are uninsured. Individuals who were over the age of 50 years were nearly half as likely to be employed as those 21–29-years old. Minorities other than Hispanic or African American were less than half as likely (OR = 0.44, CI = 0.20–0.98, $p \leq 0.00$) to be employed as whites. As when insurance is excluded, perceived health status was a significant predictor of employment for people with limitations, as did “good” (OR = 2.70, CI = 1.87–3.91, $p \leq 0.00$) and “very good/excellent” (OR = 2.84, CI = 1.94–4.17, $p \leq 0.00$) physical health status and a mental health status of “good” (OR = 2.54, CI = 1.53–4.22, $p \leq 0.00$) and “very good/excellent” (OR = 2.30, CI = 1.40–3.78, $p \leq 0.00$).

It is interesting to note that in neither of the models were the number of children under the age of 18 years in the home, nor the region of the country an individual lived in significant predictors of employment in this sample.

DISCUSSION

It is known that people with limitations do work (5,6,16). It is also known that individuals determined to be disabled under the rules of the SSA for receipt of benefits under Social Security Disability Insurance fear loss of those benefits if they work; this disincentive keeps individuals on the disability rolls (13). Much work has been completed to try to return SSDI beneficiaries to work, however, little is known about individuals whose limitation(s) is perceived as a barrier to their ability to participate at some level in social activities, but who continue to maintain employment.

This current study seeks to gain better understanding of potential Disability Insurance beneficiaries by first attempting to identify them through their indication of self-report of an activity, sensory or functional limitation, then by examining their employment status and the impact of ten variables on their maintenance of that employment status. However, as

Table II. Predictors of Employment among Disabled Individuals Medical Expenditures Panel Survey, 1996

	Model 1		Model 2	
	Odds ratio	95% CI	Odds ratio	95% CI
Gender				
Male				
Female	0.41*	[0.31, 0.56]	0.39*	[0.29, 0.53]
Race/ethnicity				
White				
African American	0.66	[0.42, 1.06]	0.67	[0.41, 1.08]
Hispanic	0.92	[0.61, 1.41]	1.05	[0.68, 1.61]
Other	0.44	[0.19, 1.02]	0.44*	[0.20, 0.98]
Age				
21–29 years				
30–39 years	1.49	[0.87, 2.55]	1.39	[0.81, 2.39]
40–49 years	1.45	[0.87, 2.4]	1.39	[0.84, 2.29]
50 years and older	0.61	[0.38, 1.00]	0.56*	[0.34, 0.91]
Marital status				
Spouse in home				
Other	0.80	[0.59, 1.06]	1.48*	[1.11, 1.99]
Education				
NO HS	0.76	[0.54, 1.08]	0.88	[0.61, 1.27]
HS				
Bachelor's degree	1.75	[1.24, 2.46]	1.68*	[1.18, 2.4]
Advanced degree	1.46	[0.78, 2.75]	1.34	[0.70, 2.56]
Insurance coverage				
private			2.34*	[1.62, 3.38]
Uninsured				
Region				
Northeast				
Midwest	1.28	[0.87, 1.88]	1.34	[0.91, 1.97]
South	1.13	[0.79, 1.61]	1.24	[0.85, 1.80]
West	1.21	[0.80, 1.83]	1.32	[0.87, 2.02]
Perceived physical health status				
Excellent/very good	2.94*	[2.01, 4.29]	2.84*	[1.94, 4.17]
Good	2.76*	[1.90, 4.01]	2.70*	[1.87, 3.91]
Fair/Poor				
Perceived mental health status				
Excellent/very good	2.27*	[1.39, 3.70]	2.30*	[1.40, 3.78]
Good	2.50*	[1.51, 4.12]	2.54*	[1.53, 4.22]
Fair/Poor				
Number of children under 18				
None				
One	1.05	[0.76, 1.46]	1.07	[0.77, 1.50]
Two	1.28	[0.86, 1.89]	1.30	[0.88, 1.94]
Three or more	0.88	[0.53, 1.46]	0.90	[0.54, 1.50]
Log likelihood	1681.34		1575.69	
χ^2	280.21		385.85	
Approximate <i>p</i> value	0.00		0.00	

Note. Based on disabled noninstitutionalized civilian population between 21 and 62 years of age. The regressions include intercept terms. Asterisks represent significant group differences compared to the reference category.

* $p \leq 0.00$.

this is a study of secondary data using MEPS, there are several limitations that first must be considered.

Although we know the employment status, we do not know the onset of the impairment and resulting limitations in relation to employment status. While this temporal sequencing

is important to consider, most medical conditions have a gradual onset, not causing employment to stop abruptly. Some conditions do mean that an individual must immediately leave the work force, but it is more likely a slower progression would be seen. However, we do know that the individual was working in the study period and that the limitation was present. It is the essence of what keeps the person employed during this critical time, prior to having to leave the work force, that is the focus of this paper. Therefore, employment status was considered as a dichotomous variable indicating if the person was working or not, given that the ability to engage in any work activity is a salient point of this study, rather than looking at the numbers hours worked.

We also do not have a measure of the severity of the limitations, but we do consider the self-perception of health status as a proxy. The removal of those with public insurance from the analysis created a selective sample. (Note: We removed 491 individuals on public insurance; of those, 64 were employed.) This removal was considered necessary because if an individual was receiving benefits under a form of public insurance (e.g. Medicare, Medicaid), it is likely that he or she has been determined to be “disabled” under SSA guidelines in order to receive those benefits, thus not representing the population this study was seeking to characterize. Finally, whereas the role of insurance is important in our analysis, the issue of temporal sequencing also affects this variable. It is not clear whether the loss of insurance is related to the loss of employment. For example, an individual might have been offered temporary health insurance but were unable to afford the extension of coverage because under COBRA (Consolidated Omnibus Budget Reconciliation Act), as a former employee no longer receiving benefits, the individual will usually pay the entire premium amount, that is, the portion of the premium paid as an active employee and the amount of the contribution made by the employer. In addition, there may be a 2% administrative fee (17).

There are a variety of governmental programs that attempt to return individuals with known severe limitations back to the work force. For example, most states have departments of rehabilitation or vocational services programs that provide rehabilitation counseling programs and work retraining programs. Another example is Medicaid’s extension of eligibility to those with disabilities (as determined under SSA) who do continue to work. Also, the TWWIA is legislation that modified the rules under SSDI to allow an individual with a known disability to decrease some of the inherent disincentives to return to work under the SSDI program (e.g. an extended trial work period, an extension of the eligibility time period for Medicare benefits once the individual does return to active employment). Currently, a pilot program under SSA entitled “Early Intervention” is planning to intervene in the SSDI process by providing return to work incentives to *applicants* to the SSDI program prior to these individuals becoming beneficiaries (18). However, little is known about those who continue to work despite limitations prior to ever approaching the SSDI process.

We have shown that people with activity, functional, and sensory limitations do work. This study has shown that the role of insurance as a key factor in that employment status with individuals. In fact, twice as many were likely to work if they had private insurance. This variable was nearly as significant in the act of maintaining employment as having a strong perception of physical and mental health. Health and the ability to maintain health through access to care with insurance are keys to sustained employment for individuals with limitations; however, governmental programs restrict access to their return to work programs to individuals who are determined to be severely disabled enough to receive benefits. In fact, it may suggest that providing health care may deter or delay the eventual

need for application for SSDI by allowing the individual to receive adequate health care to slow or interrupt a disease process or condition.

When considering insurance access, education was also significant. Those with a college-level of education were more likely to have insurance than those with a high school diploma, but this was not true for those with more advanced degrees. This suggests that perhaps the specialization that a more advanced degree brings may actually limit the flexibility of job choice, leading an individual not to want to accept what may be considered an undesirable position. This is viewed as “inadequate employment” whereby the individual works in a position that is working part-time or at wages lower than the previous (19).

While there are limitations of administrative data that restrict the interpretation of our results, the impact of insurance and the perception of health do deem note. Our findings extend previous research by shifting the population studied to those not yet determined to have severe enough limitations to qualify for governmental programs that offer return to work support and benefits. In fact, future work needs to address the persistence of the limitations over time in relation to employment status. However, our findings, based on a population-based survey, suggest the need for access to health insurance for individuals who are not yet determined to be disabled, in order to help them remain working. This work also points to the need for better data collection on those with limitations who are at risk of applying for disability benefits, in order to either delay or deter that application in favor of continued employment, if possible, for as long as possible.

REFERENCES

1. General Accounting Office. *Welfare Reform: Former TANF Recipients With Impairments Less Likely to be Employed and More Likely to Receive Federal Supports*, GAO-03-210. Washington, DC: U.S. General Accounting Office, December 2002.
2. Social Security Administration. *Annual Statistical Report on the Social Security Disability Insurance Program, 2000*. Retrieved January 2, 2003 from <http://www.ssa.gov/notices/supplemental-security-income/>
3. Franche R-L, Krause N. Readiness for return to work following injury of illness: Conceptualizing the interpersonal impact of health care, workplace, and insurance factors. *J Occupational Rehabil* 2002; 12: 233–256.
4. Fauerbach JA, Engrav L, Kowalske K, Brych S, Bryant A, Lawrence J, Li, G, Munster A, de Lateur B. Barriers to employment among working-aged patients with major burn injury. *J Burn Care Rehabil* 2001; 22: 26–34.
5. Tanttula K, Vuola J, Asko-Seljavaara S. Return to employment after burn. *Burns* 1997; 23: 341–344.
6. Keyser-Marcus LA, Bricout JC, Wehman P, Campbell LR, Cifu DX, Englander J, High W, Zafonte, RD. Acute predictors of return to employment after traumatic brain injury: A longitudinal follow-up. *Arch Phys Med Rehabil* 2002; 83: 635–641.
7. Yelin E. The earnings, income, and assets of persons aged 51–61 with and without musculoskeletal conditions. *J Rheumatol* 1997; 24: 2024–2030.
8. Ahlgren C, Hammarstrom A. Has increased focus on vocational rehabilitation led to an increase in young employees' return to work after work-related disorders? *Scand J Public Health* 1999; 27: 220–227.
9. Hennessy J, Muller S. Work efforts of disabled-worker beneficiaries: Preliminary findings from the new beneficiary follow up survey. *Soc Secur Bull* 1994; 57: 42–51.
10. Turner JA, Franklin G, Turk DC. Predictors of chronic disability in injured workers: A systematic literature synthesis. *Am J Ind Med* 2000; 38: 707–722.
11. Feuerstein M, Menz L, Zastowny T, Barron B. Chronic back pain and work disability: vocational outcomes following multidisciplinary rehabilitation. *J Occup Rehabil* 1994; 4: 229–250.
12. Teassel RW, Bombardier C. Employment-related factors in chronic pain and chronic pain disability. *Clin J Pain* 2001; 17: S39–S45.
13. Curtis P. A back-to-work strategy can protect your benefits. *Positive Living*. 1999; 8(2): 39, 35.
14. James J. Disability benefits: New law will help disabled return to work. *AIDS Treat News* 2000; 334: 7–8.
15. World Health Organization. *International Classification of Functioning, Disability, and Health*. ICF, Geneva: WHO, 2001.

16. Mayfield JA, Deb P, Whitecotton E. Work disability and diabetes. *Diabetes Care* 1999; 22: 1105–1109.
17. Department of Labor Employee Benefits Security Administration. *Frequently Asked Questions About COBRA Continuation Health Coverage*. Retrieved April 15, 2003 from <http://www.dol.gov/ebsa/>
18. Mitra S, Brucker D. (in press), The early intervention project: An innovative initiative to return Social Security applicants to work. *J Disab Policy Stud*.
19. Grzywacz JG, Dooley D. Good jobs to bad jobs: Replicated evidence of an employment continuum from two large surveys. *Soc Sci Med* 2003; 56: 1749–1760.



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