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Analysis of the Relationship Between the Onset of a Disability and Labor Market Outcomes

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By

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Chapter 1:

INTRODUCTION

Many industrialized countries acknowledge the necessity for effective regulation that support workers whose prospects of integrating or remaining in the labor force are hampered by long-term illness, work-related injury or disability. In the United States, the Americans with Disabilities Act (ADA) of 1990 aimed to proliferate the economic and social assimilation of persons with disabilities into conventional society by guarding their civil liberties and eliminating discrimination on the basis of disability. Title I of the ADA, which concentrates on employment, stipulates that those with disabilities have identical access to job opportunities as people with no disabilities. Employers are also required to provide "reasonable accommodations" to improve ease of access of the workplace for those employees and job applicants who have disabilities (Kruse & Schur, 2003).

Data on people with disabilities are difficult to come across, and even more so regarding the situation of their employment (United Nations, 2007). Country-level information on persons with disabilities originates from "censuses, population surveys and administrative data registries" (World Health Organization, 2011). Decisions on the timing and methods of data collection are dependent on available resources. Such data needs to be made "comparable at the international level" (World Health Organization, 2011).

The unemployment rate of those with disabilities and of working age in industrialized countries is at least double the unemployment rate of people with no disability. According to a survey in 2004, the employment rate of people with disabilities of working age was 34 percent, as compared to 78 percent of those with no disability in the United States. Two-thirds of the survey population with disabilities stated that they wanted to work but were unable to obtain

jobs. For both male and female four-year college graduates, the employment rate was 89.9 percent, whereas it was only 50.6 percent for college graduates who had disabilities (United Nations, 2007). Similarly, as published by the U.S Bureau of Labor Statistics (2013), the 2012 employment-population ratio of people without a disability was 63.9 percent, whereas it was only 17.8 percent for those with a disability. This ratio increased for the part of the population without a disability between 2011 and 2012, but showed no improvement for the working population with disabilities.

People with disabilities are often not considered to be potentially productive participants in the labor force. Prejudice and misconceptions about the inability of such members of society to work and that providing accomodations for them will be costly for companies have led to their underrepresentation in the American workforce (United Nations, 2007). According to research by Ameri et al. (2015), job applicants having disabilities were 26 percent less likely to receive callbacks as compared to applicants without a disability. This gap was more obvious for highly experienced applicants and for "private companies with fewer than fifteen employees" (Ameri et al., 2015).

Studies on national employment in the United States have found that workers with disabilities have higher retention rates, lower levels of absenteeism and better performance standards. These greater retention rates reduce staff turnover costs, and this rate is 85 percent for workers with disabilities after a year of employment (United Nations, 2007). According to Morris (2005), customers with disabilities represent "$1 trillion in annual aggregate consumer spending" in America. A survey by Dixon, Kruse and Van Horn (2003) revealed that it cost employers less than $500 to provide adaptive accommodations for their employees with

disabilities, whereas 73 percent of the employers stated that these workers did not need any special accommodations.

As compared to research conducted on differentials in labor market outcomes due to racial discrimination or gender, empirical studies on such differentials rooted in discrimination due to disability are not as abundant. Much research in the United States has focused on the significance of the status of health and disability on labor supply behavior. However, the attention of these studies has been centered on the fraction of the population close to retirement age (Williamson and McNamara, 2002; Kreider and Pepper, 2007). This is where a gap in research was identified, which is reviewed in further detail in the next section.

This research will add to the body of existing literature in disability and employment using fixed effect techniques, by postulating the changes in employment outcomes before and after the onset of a disability. It aims to contribute to the comprehension of the position of the working population with disabilities in the labor market. This study observes the effect of different types of disabilities on the employment status of these workers, their annual earnings, and the number of hours they work.

Chapter 2:

LITERATURE REVIEW

As stated by Ameri et al. (2014), 33 percent of working-age persons with disabilities were employed during 2012, as compared to 74 percent of persons with no disabilities. Employed persons with disabilities were also found to be paid lower levels. Policymakers find it perplexing that the "relative employment" of people with disabilities has not increased since 1990 when the ADA was legislated (Ameri et al., 2014).

Most of the literature on disability and employment focuses either on a particular sub-group or a specific disability. However, it is important to observe the effects on labor market outcomes of various disabilities simultaneously. As explained by Williamson and McNamara (2002), the unplanned onset of a disability can throw individuals off their 'normal' trajectory of life events such as the timing of retirement. Unexpected "changes in health status" result in "involuntary retirement" and an "early exit from the labor force" (Williamson & McNamara, 2002).

However, authors such as Williamson and McNamara (2002) and Kreider and Pepper (2007) have focused their attention on age groups approaching retirement. Both studies extract data from the Health and Retirement Study (HRS). The sample of respondents selected by Kreider and Pepper (2007) were aged above forty, while the chosen sample by Williamson and McNamara (2002) was between the ages of 51 and 61 years. In addition, both researches have taken into account the influence of race, gender and education along with health status on labor market outcomes. For instance, Williamson and McNamara (2002) identify lower "labor force participation rates" among black males as compared to non-black males during the post-World War II time period.

A study by Ameri et al. (2014) observed employer behavior by choosing disabilities that do not affect productivity in an accounting field, which included spinal cord injury and Asperger's Syndrome. They found that job candidates that indicated a disability, but had identical applications in all other aspects to those with no disability, did not interest employers as much. Similarly, the 2006 Participation and Activity Limitation Survey (PALS) revealed that 0.7 percent of Canada's working-age population has intellectual disabilities. Compared to "half of those with disabilities and about three-quarters of people without disabilities," approximately a quarter of persons with intellectual disabilities were employed, and are six times more probable than others to never have worked at all. Those with developmental disabilities were also less likely to receive the necessary support to work, such as modified working hours, days or responsibilities, and "technical and human supports on the job" (Crawford, 2011). Crawford (2011) identified factors like inadequate job training, lack of "accessible transportation," discrimination, and the fear of being isolated in the workplace, as well as apprehensions about forgoing disability benefits such as subsidized housing all contribute to the suppression of employment search efforts.

Jeon (2014) studied the impact on "employment status and annual earnings" of workers surviving cancer three years after the diagnosis in Canada. Results showed that cancer survivors were 4.8 percentage points less likely to be employed as compared to those never diagnosed with the disease. Cancer survivors with a low rate of survival were 11 percentage points lower than workers without cancer to be employed after the first year of diagnosis, while it is 2 percentage points lower for cancer survivors with greater likelihood of survival. Furthermore, the mean yearly earnings lost due to cancer were ten to eleven percent during transition back to employment as compared to those who did not have cancer (Jeon, 2014).

Although the literature reviewed has documented facts like different rates of employment, it did not establish a causal relationship. The contribution of this study is that it takes advantage of a panel dataset. The observations in the baseline dataset consist of individuals who did not have a disability initially. This study then observes the effect on labor market outcomes of an onset of a disability between 2011 and 2012 by adopting a fixed effects regression model. The benefit of using such a model is that it controls for unobservable heterogeneity. While the ordinary least squares (OLS) regression may predict a relatively strong relationship between disability and the labor market outcomes, the fixed effects regression will filter out the impact of unobservable factors. Perhaps the main idea of this research is most comparable to the study by Williamson and McNamara (2002). This paper hypothesizes that the onset of a disability will reduce annual earnings and the number of hours worked, and worsen the employment status. The next chapter describes the data and methods utilized by this research.

Chapter 3:

METHODOLOGY

Variables for evaluating the relationship between labor market outcomes and the onset of different types of disability for the time period 2011 and 2012 were extracted from the medical conditions files and the full-year consolidated files of the Medical Expenditure Panel Survey. According to the Agency for Healthcare Research Quality (2009), the Medical Expenditure Panel Survey (MEPS), first conducted in 1996, asks about the medical provider and employer information of individuals and families across the United States. MEPS is considered to be the most comprehensive source of data on "the cost and use of healthcare and health insurance coverage" (AHRQ, 2009). The two main components of MEPS are the Household Component and the Insurance Component. The Household Component consists of data on the members of different households, "which is supplemented by data from their medical providers." The Insurance Component surveys employers and provides data on "employer-based insurance" (AHRQ, 2009). This study used information from the Household Component only, which includes both the medical conditions files and the full-year consolidated files. The survey is designed to carry out interviews over "two full calender years." This allows relationships to be drawn between the health, employment status, income and payment of medical services by respondents (AHRQ, 2009).

Employment information of the survey respondents was extracted from the MEPS full-year consolidated file. Similarly, data on various forms of disabilities was taken from the MEPS medical conditions file. This contains "information on household-reported medical conditions collected on a nationally representative sample of the civilian non-institutionalized population of the United States" (AHRQ, 2009). The medical conditions files for 2011 and 2012 were used to

create five categorical variables for various disabilities. The 2011 medical conditions file originally contained 108,619 observations of which the dataset for this study utilized 15,389 observations. Similarly, the 2012 medical conditions file had 118,850 observations of which 14,719 observations were extracted for this research. The variable containing clinical condition classification information was used to form the categorical disability variables. The mental disability variable contained conditions such as anxiety, mood, personality and developmental disorders and dementia, schizophrenia and other psychotic disorders. The variable created for disability resulting from chronic illness included conditions like hepatitis, tuberculosis, endocrine disorders, meningitis and immunity disorders. The variable on disability caused by cancer contained conditions such as cancer of cervix, uterus, bone and melanoma. The variable on mobility issues had conditions including epilepsy and paralysis. Finally, the variable on sensory disability contained conditions like retinal detachments, glaucoma, and ear and sense organ disorders.

This study merged data from the MEPS medical conditions file and the full-year consolidated file on the basis of the respondents' identification. It then examined the relationship between employment status, annual earnings and the number of hours worked and different types of disability, including mental, sensory and physical disabilities, as well as disability caused by cancer and other chronic illnesses. Initially, an OLS model was estimated with the form:

$$y_i = \beta_0 + \delta_0 D_i + \beta_1 X_i + u_i \qquad \text{(Eq. 1)}$$

where y_i represents the dependent variables of employment status, annual income and number of hours worked weekly. D_i contains dummy variables on the various types of disability, where the coefficient states the change in labor market outcomes due to the onset of each disability as compared to the absence of a disability. X_i contains demographic variables describing the

sample. However, the OLS regression does not account for unobservable factors that may influence employment, such as the willingness of a person to take risks to perform certain jobs, or preference to do a particular type of job. As a result, the OLS coefficients were biased, and a fixed effects regression is estimated instead. The fixed effects models being predicted here is:

$$y_{it} = \beta_0 + \delta_0 D_{it} + \beta_1 X_{it} + \beta_2 X_i + a_i + u_{it}, \; t = 2011, 2012 \qquad \text{(Eq. 2)}$$

Here, X_{it} consists of time-varying demographic explanatory variables such as age and education, and X_i contains demographic variables that do not change with time like gender and race. Part of the error term is constant over time, a_i, whereas part of it varies with time, u_{it}. The fixed effects model filters out the effect of both the time-consistent unobservable heterogeneity and the time-consistent observable heterogeneity, X_i.

The chosen sample for this study contains 36,912 observations, as can be seen in Table 1. The average annual income for this sample from 2011 to 2012 was $33,207, and the mean number of hours worked per week was 27.04 hours. 69.61 percent of the people were working during this period. Figure 1 shows the categories of disabilities inherent in the sample. As can be seen, 9.07 percent of the sample had some mental disorder, 33.21 percent had a disability caused by a chronic illness, 2.77 percent had a disability that was cancer induced, 19.72 percent had mobility issues, 4.72 percent had some sensory disability such as blindness or deafness, whereas 61.24% of the sample had no form of disability. Age was grouped as a categorical variable. 27.8 percent of the sample was between the ages of 25 to 34 years, 25.1 percent was between 35 to 44 years, 25.8 percent was between 45 to 54 years, and 21.3 percent was between 55 and 64 years of age. 53.33 percent of the sample were female. 30.49 percent of the sample had graduated from high school, 42.10 percent had acquired a bachelors degree, and 8.86 percent held a masters

degree. In addition, 19.76 percent of the sample were African American, 7.85 percent were of Asian descent, and 28.18 percent were Hispanic.

Chapter 4:

RESULTS

This chapter demonstrates the estimated results from the OLS and fixed effects regressions for the models discussed previously and interprets them. The OLS estimates describe the relationship between disability and labor market outcomes at a point in time, whereas the fixed effects estimates explain the relationship among a change in disability status and a change in labor market outcomes between 2011 and 2012.

4.1: Relationship between disability and employment status

Table 2 shows the regression results for the relationship between the onset of a disability and the employment status of an individual in the labor market. As expected, the onset of a mental disability has a negative relationship with employment status. Under the OLS regression, the presence of a mental disorder is associated with a decrease in the chance of being employed by 13.9 percentage points as compared to someone with no mental disability, and is statistically significant at the 1 percent level. However, this significance no longer exists under the fixed effects regression, which associates the incidence of a mental health disorder with a decline in the likelihood of being employed by 0.9 percentage points. This implies that the OLS coefficient was biased due to unobservable heterogeneity.

On the other hand, the presence of a chronic illness, such as severe diabetes, appears to have a positive association with the employment status of an individual. Disability caused by such illnesses is related to an increase in the likelihood of being employed by 5.1 percentage points at the 1 percent level of significance. The fixed effects estimate is also statistically significant at the 1 percent level and indicates that the onset of a disability due to a chronic illness is associated with an increase of 2.5 percentage points in the probability of being

employed, as compared to someone with no such disability. Such counter-intuitive estimates imply that the onset of a disability is not an exogenous variable in this model.

The presence of a disability due to cancer is associated with a reduction in the likelihood of being employed by 3.7 percentage points in the OLS regression, and is statistically significant at the 5 percent level as compared to those without a cancer-induced disability. This coefficient virtually falls to zero under the fixed effects regression model, again explaining the bias in the OLS coefficient caused by unobservable factors.

A similar situation persists for the estimated coefficients of the onset of physical mobility issues. The OLS estimate suggests that a person with an issue in mobility is 4.2 percentage points less likely to be employed than someone with no mobility problems, and is statistically significant at the 1 percent level. After accounting for unobservable factors, the onset of a disability causing physical immobility is related to a fall of 0.7 percentage points in the probability of being employed as compared to a person with no such disability. This coefficient has no statistical significance.

The presence of a sensory disability, like blindness or deafness, seems to have no association with an individual's employment outcome in the OLS regression. The fixed effects regression estimates remain statistically insignificant, showing that a person experiencing the onset of a sensory disability is 1.1 percentage points less likely to be employed than someone without a sensory disability. This finding is supported by the University of New Hampshire's Annual Disability Statistics Compendium (2012), which stated that in 2011, people with hearing and visual disabilities had employment rates of 48.3 percent and 36.1 percent respectively. This is higher than the employment rate of 22.4 percent for people with cognitive disability, and 23.9 percent for those with ambulatory disability and faced extreme difficulty in walking.

The OLS estimates for all categorical variables for age are significant at the 1 percent level. The portion of the sample between the ages of 25 and 34 years is 8.2 percentage points more likely to be employed as compared to the base category of people between the ages of 55 to 64 years. Similarly, people aged 35 to 44 years are 11.9 percentage points more likely to be employed, while those between the ages of 45 to 54 years are 11.5 percentage points more likely to be employed as compared to the base category of 55 to 64 years. An individual who is married is 4.0 percentage points more likely to be employed than an unmarried person at the 1 percent significance level. The OLS estimates show that a person who has recently moved is less likely to be employed by 7.0 percentage points at the 5 percent level of significance, as compared to someone who has not moved in the last six months. In the OLS regression model, Blacks are 5.4 percentage points less likely to be employed as compared to Whites, while Latinos are 1.8 percentage points more likely to be employed. However, these variables are time-consistent and are dropped by the fixed effects model. This also holds true for the gender and education variables, where the OLS results show that females are 12.4 percentage points less likely to be employed than males. People with a high school diploma were 13.3 percentage points more likely to be employed as compared to someone without this diploma, those with a college degree were 22.9 percentage points more likely to be employed as compared to someone without a college degree, and those with a Masters degree were 32.4 percentage points more likely to be employed than someone without a Masters degree. All three education variables were statistically significant at the 1 percent level, but were dropped out by the fixed effects regression model. Overall, there was an increase of 1.9 percentage points in employment between 2011 and 2012.

4.2: Relationship between disability and hours worked

Table 3 shows the regression results for the relationship between disability and other demographic factors with the number of hours worked among those who were employed. The incidence of a mental disorder is associated with a decrease in the number of hours worked per week, as expected. The OLS coefficient shows a 4.4 percent decline in working hours is associated with the presence of mental health problems as compared to someone without a mental disorder. This coefficient was statistically significant at the 1 percent level of significance. After adjusting for unobservable heterogeneity in the fixed effects regression, The onset of a mental disorder is related to a fall of 2.2 percent in hours worked, and is significant at the 5 percent level.

The presence of disability caused by a chronic illness has almost no association with the number of weekly hours worked in the OLS regression, and the onset of this disability is associated with a rise of 1.0 percent at the 10 percent significance level as compared to a person with no disability due to a chronic illness, after adjusting for unobservable heterogeneity. The OLS estimate shows that the presence of a disability caused by cancer is negatively associated with working hours by 2.8 percent, whereas the fixed effects estimate suggests a positive relationship of an increase of 0.5 percent, but neither coefficient is statistically significant. Again, having a mobility issue has virtually no association with the number of hours worked by an individual under both regression models, with both coefficients being close to zero. The OLS estimate indicates that the presence of a sensory disability is associated with a decline of working hours by 0.5 percent and is not statistically significant. The onset of a sensory-related disability is associated with a decline of 1.8 percent as compared to someone with no sensory disability at the 10 percent significance level. This is in accordance with expectations.

Variables describing age demonstrate that people between the ages of 25 to 34 years are associated with working 1.5 percent fewer hours per week than those between the ages of 55 to 64 years at the 10 percent significance level, probably because their careers have not matured as much as those who are more experienced members of the labor market. Conversely, those who are 35 to 44 years old are associated with working 2.3 percent more hours, and those who are 45 to 54 years old are associated with working 3.6 percent more hours per week at the 1 percent significance level than people who are 55 to 64 years old. Compared to people who are not married, those who are married are associated with an increase of 1.7 percent in weekly working hours at the 1 percent level of significance. As compared to Whites, being Asian is associated with a 1.9 percent increase in the number of hours worked per week, and this OLS coefficient is statistically significant at the 5 percent level. In addition, being female is associated with working 14.0 percent fewer hours than men at the 1 percent level of significance. Having a high school education is associated with a raise in working hours per week by 3.5 percent, while holding a bachelors degree is associated with an increase in these hours by 6.2 percent, and a Masters degree by 10.4 percent, as compared to those who do not hold these educational qualifications, all statistically significant at the 1 percent level. Since variables on race, gender and education are time-invariant, they are dropped by the fixed effects regression. Overall, the number of weekly working hours increased by 0.5 percent in 2012 as compared to 2011.

4.3: Relationship between disability and annual income

Table 4 illustrates the regression results for the relationship between the onset of a disability and an employed person's annual income. According to the OLS estimate, an individual with a mental health disorder is associated with a 5.6 percent decline in annual income at the 1 percent significance level as compared to a person with no mental disability. After

adjusting for unobservable factors, an individual with the onset of a mental disorder between 2011 and 2012 is associated with earning 6.0 percent more than a person without a mental disorder, and this coefficient is statistically significant at the 10 percent level. This finding indicates that a person may be earning higher amounts because they have a more demanding and stressful job. This reverse causality was also outlined in a study by Currie and Madrian (1999).

The presence of a chronic illness is linked to an increase in income by 4.6 percent at the 1 percent level of significance, as compared to someone without a disability due to a chronic illness. This OLS coefficient is biased due to unobservable factors as it is no longer significant under the fixed effects regression, where the estimate shows an association to a fall of 1.2 percent in income after the onset of a disability caused by a chronic illness. A disability induced by cancer has no statistically significant relationship with income. The OLS coefficient indicates that the presence of a disability due to cancer is associated with an increase of 4.8 percent in yearly income as compared to a person without this disability, while the fixed effects estimate shows almost no relationship between the onset of a disability due to cancer and income. Having a mobility issue is associated with a decrease in income by 2.7 percent at the 5 percent level of significance as compared to a person with no mobility problems. However, after accounting for unobservable heterogeneity, mobility problems become positively related to income by 3.1 percent at the 10 percent significance level. This relationship is counter-intuitive, meaning that the fixed effects model is not able to address the problem of unobservable heterogeneity completely. Having a sensory disability is associated with an increase in income of 7.7 percent at the 1 percent level of significance, as compared to someone with no sensory disability. However, this OLS coefficient is biased as it becomes statistically insignificant under a fixed effects model. The onset of a sensory disability is positively associated to income by 1.5 percent.

The categorical variables on age illustrate that people between the ages of 25 to 34 years are associated with earning 26.6 percent less than those between the ages of 55 to 64 years, and people aged 35 to 44 years are associated with earning 6.9 percent lower than the base category at the 1 percent level of significance. Being married is linked to earning 10.2 percent more than people who are not married at the 1 percent significance level, and having recently moved to a new area is associated with earning 16.5 percent less than those who have not moved recently at the 5 percent significance level. Variables describing race, gender and education are all statistically significant at the 1 percent level, but are dropped out of the fixed effects model since they are time-consistent. Being black is associated with earning 15.6 percent less yearly, being Asian 6.2 percent less, and being Latino 19.9 percent less than whites. Females are associated with earning 23.4 percent less than males each year. Having a high school education is linked to earning 28.3 percent more than someone without a high school diploma, having a Bachelors degree is associated with earning 61.6 percent more than someone without this degree, and having a Masters degree is associated with earning 107.8 percent more than someone without a Masters degree. Overall, income increased by 5.4 percent between 2011 and 2012.

Chapter 5:

CONCLUSION

This study finds that the onset of certain, but not all types of disabilities is associated with the worsening of some, but not all labor market outcomes. The incidence of a mental disorder is positively related to an individual's annual income, as more psychologically stressful jobs are more likely to be paying higher wages, and the onset of such mental health problems is negatively associated with the number of hours worked weekly by an individual which is in accordance with expectation. The onset of a disability induced by cancer appears to have virtually no relationship with any of the labor market outcomes. This also holds true for the incidence of disabilities impairing a person's physical mobility. The onset of a sensory disability has a significantly negative relationship with the number of weekly hours worked, which is in line with postulation as well. However, a positive counter-intuitive association was observed between the incidence of a disability caused by a chronic illness and an individual's employment status and hours worked per week.

This research did not find a dramatic association between the onset of a new disability and negative labor market outcomes. A reason for having results that are not in accordance with literature is that this study has considered a very short time frame, only one year, during which the sample incurred a disability. The Medical Expenditure Panel Survey, which was used to extract data for this research, does not follow respondents for more than a year. A potential area for future study could be to have a panel dataset with a longer time period, but this may result in having to reduce the sample size.

Given that existing literature identifies large employment gaps among people with and without disabilities, these results suggest that it may take some time before individuals with a

new disability experience their employment worsening. This study highlights the importance for policymakers and counselors to intervene at early stages of the onset of a disability. Several programs exist that aid in the rehabilitation and employment of people with disabilities, as identified by Rangarajan et al. (2008), but taking steps earlier in the rehabilitation process could lower the employment gap between those with and without disabilities.

APPENDICES

TABLE 1: Summary Statistics

VARIABLES	mean	sd	min	max
Hours worked	27.04	20.47	0	168
Mental disability	9.07%			
Disability due to chronic illness	33.2%			
Disability due to cancer	2.77%			
Mobility issue	19.7%			
Sensory disability	4.72%			
Married	54.8%			
Midwest	19.2%			
South	37.7%			
West	27.1%			
Recently moved	0.431%			
Black	19.8%			
Asian	7.85%			
Latino	28.2%			
Female	53.3%			
Income	33,207	34,618	-80,288	296,955
High school graduate	30.5%			
College graduate	42.1%			
Masters graduate	8.86%			
Employed	69.6%			
Age 25 to 34 years	27.8%			
Age 35 to 44 years	25.1%			
Age 45 to 54 years	25.8%			
Age 55 to 64 years	21.3%			
Observations	36,912			

TABLE 2: Regression Results for Disability and Employment Status

	OLS	**Fixed Effects**
VARIABLES	Employed	Employed
Mental disability	-0.139***	-0.009
	(0.009)	(0.013)
Disability due to chronic illness	0.051***	0.025***
	(0.006)	(0.008)
Disability due to cancer	-0.037**	-0.000
	(0.015)	(0.019)
Mobility issue	-0.042***	-0.007
	(0.007)	(0.008)
Sensory disability	-0.000	-0.011
	(0.011)	(0.012)
Age 25 to 34 years	0.082***	0.010
	(0.007)	(0.039)
Age 35 to 44 years	0.119***	0.000
	(0.007)	(0.031)
Age 45 to 54 years	0.115***	-0.005
	(0.007)	(0.021)
Married	0.040***	0.020
	(0.005)	(0.024)
Midwest	0.034***	0.001
	(0.008)	(0.065)
South	0.013*	-0.020
	(0.007)	(0.058)
West	0.004	0.033
	(0.007)	(0.079)
Recently moved	-0.070**	0.066*
	(0.035)	(0.038)
Year (2012)		0.019***
		(0.004)
Black	-0.054***	
	(0.007)	
Asian	-0.005	
	(0.009)	
Latino	0.018***	
	(0.006)	
Female	-0.124***	
	(0.005)	
High school graduate	0.133***	
	(0.008)	

College graduate	0.229***	
	(0.007)	
Masters graduate	0.324***	
	(0.009)	
Constant	0.491***	0.666***
	(0.011)	(0.053)
Observations	36,912	36,912
R-squared	0.088	0.005
Number of DUPERSID		27,851

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE 3: Regression Results for Disability and Hours Worked

VARIABLES	**OLS** Ln (Hours worked)	**Fixed Effects** Ln(Hours worked)
Mental disability	-0.044***	-0.022**
	(0.012)	(0.010)
Disability due to chronic illness	0.006	0.010*
	(0.006)	(0.006)
Disability due to cancer	-0.028	0.005
	(0.020)	(0.014)
Mobility issue	0.006	0.005
	(0.007)	(0.006)
Sensory disability	-0.005	-0.018*
	(0.013)	(0.009)
Age 25 to 34 years	-0.015*	0.007
	(0.008)	(0.028)
Age 35 to 44 years	0.023***	0.010
	(0.008)	(0.022)
Age 45 to 54 years	0.036***	-0.010
	(0.008)	(0.015)
Married	0.017***	0.000
	(0.005)	(0.018)
Midwest	-0.005	0.027
	(0.009)	(0.047)
South	0.024***	-0.001
	(0.007)	(0.044)
West	-0.022***	0.002
	(0.008)	(0.063)
Recently moved	0.009	0.024
	(0.034)	(0.030)
Year (2012)		0.005*
		(0.003)
Black	-0.001	
	(0.007)	
Asian	0.019**	
	(0.009)	
Latino	-0.005	
	(0.007)	
Female	-0.140***	
	(0.005)	
High school graduate	0.035***	
	(0.009)	

College graduate	0.062***	
	(0.008)	
Masters graduate	0.104***	
	(0.011)	
Constant	3.603***	3.594***
	(0.013)	(0.040)
Observations	25,368	25,368
R-squared	0.040	0.003
Number of DUPERSID		19,475

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

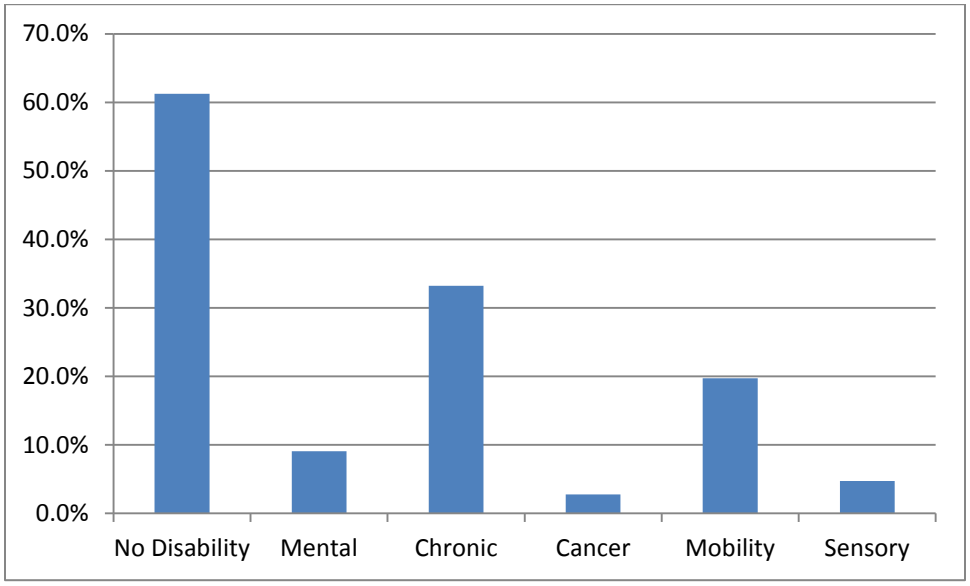
TABLE 4: Regression Results for Disability and Annual Income

VARIABLES	**OLS** Ln(Income)	**Fixed Effects** Ln(Income)
Mental disability	-0.056***	0.060*
	(0.019)	(0.032)
Disability due to chronic illness	0.046***	-0.012
	(0.011)	(0.018)
Disability due to cancer	0.048	0.007
	(0.029)	(0.043)
Mobility issue	-0.027**	0.031*
	(0.013)	(0.018)
Sensory disability	0.077***	0.015
	(0.022)	(0.029)
Age 25 to 34 years	-0.266***	0.112
	(0.013)	(0.086)
Age 35 to 44 years	-0.069***	0.082
	(0.013)	(0.069)
Age 45 to 54 years	-0.020	-0.023
	(0.013)	(0.048)
Married	0.102***	-0.035
	(0.009)	(0.055)
Midwest	-0.118***	-0.220
	(0.014)	(0.147)
South	-0.127***	-0.216
	(0.013)	(0.133)
West	-0.009	-0.191
	(0.014)	(0.196)
Recently moved	-0.165**	0.049
	(0.082)	(0.093)
Year (2012)		0.054***
		(0.008)
Black	-0.156***	
	(0.013)	
Asian	-0.062***	
	(0.017)	
Latino	-0.199***	
	(0.012)	
Female	-0.234***	
	(0.009)	
High school graduate	0.283***	
	(0.015)	
College graduate	0.616***	

	(0.014)	
Masters graduate	1.078***	
	(0.019)	
Constant	10.209***	10.500***
	(0.021)	(0.122)
Observations	25,666	25,666
R-squared	0.243	0.010
Number of DUPERSID		19,711

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

FIGURE 1: Proportion of Sample with Disabilities



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